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June 17, 2024

Submitted via eplanning at: <https://eplanning.blm.gov/eplanning-ui/project/2021239/510>

Ms. Tracy Stone-Manning  
BLM Director  
Attention: Protest Coordinator (HQ210)  
Denver Federal Center, Building 40 (Door W-4)  
Lakewood, CO 80215

RE: Protest of the BLM Decision regarding the Proposed Resource Management Plan Amendment and Final Supplemental Environmental Impact Statement for the Buffalo Field Office, Wyoming (Federal Register/Vol. 89, No. 97/Friday, May 17, 2024/Notices/Page 43431)

Dear Director Stone-Manning:

Please accept this protest for the Proposed Resource Management Plan Amendment (RMPA) and Final Supplemental Environmental Impact Statement (FSEIS)<sup>1</sup> for the Buffalo Field Office, Wyoming, which is timely filed by the following parties:

Campbell County Board of Commissioners  
Attn: Jim Ford  
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Converse County Board of Commissioners  
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<sup>1</sup> DOI-BLM-WY-P070-2022-0115-RMP-EIS

## Interest of the Parties

The Buffalo Field Office (BFO) completed the 2015 Approved Resource Management Plan (RMP) and Record of Decision (ROD) in September of 2015; the Bureau of Land Management (BLM) amended it in 2019, based on the 2019 Western Organizations of Resource Council (WORC I) SEIS/RMPA. The 2015 Approved RMP/ROD provides management guidance and direction for approximately 800,000 acres of BLM-administered surface land and 4.7 million acres of BLM-administered mineral estate in Campbell, Johnson, and Sheridan Counties in north-central Wyoming. BLM identified the decision area for the 2022 RMPA SEIS as the Coal Development Potential Area (CDPA) recognized under Alternative B in the 2019 SEIS (BLM 2019).<sup>2</sup> BLM management applies only to public lands, meaning those lands where the BLM has management responsibility for either the surface or the subsurface estate. The decision area is BLM-administered federal coal in the 2019 Approved RMPA Coal Development Potential Area (CDPA).<sup>3</sup>

The local governments protesting this action have a long-standing interest in the RMPA FSEIS. Campbell and Johnson Counties have participated as cooperating agencies throughout the 2019 SEIS RMPA process and into the recent 2024 RMPA FSEIS process. Converse County participated in this recent RMPA DSEIS which included a focus on the Socio and Economic Affected Environment Section 3.5.3. due to the fact that while some commuting from adjacent counties still occurs, the primary immediate economic connections are now only within Campbell and Converse Counties. BLM admits that these direct and indirect economic relationships are considered and analyzed alongside the more immediate socioeconomic connections of Campbell and Converse Counties with respect to federal Powder River Basin coal.

All three Counties are filing a protest on the RMPA FSEIS BLM decision to choose Alternative A (No Leasing) as the preferred alternative. The Counties economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the Counties but within the State and across the country. Our ability to continue with a viable federal coal leasing program is essential to the long-term health of our economies and federal agencies must respect the custom and culture of local communities and to work towards sincerely striking a balance with land management directives. Disturbingly, the BLM decision to withdraw the entire CDPA from future coal leasing goes beyond any rational balance of managing resources and causes significant harm for the Counties, the state and the nation.

In Wyoming, counties serve as a legal arm of the state entrusted with carrying out statutory and regulatory goals at the local level. Counties operate at the forefront to ensure our communities are economically vibrant, safe, and healthy places to live and work. Wyoming counties serve as partners and co-regulators of the 18.4 million acres of BLM surface lands and 42.9 million acres of federal mineral estate that fall within their jurisdictional boundaries and uniquely contain varying percentages of federal, state, and private land, which need thoughtful management.

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<sup>2</sup> 2019 BLM (United States Department of the Interior, Bureau of Land Management) Buffalo Field Office Supplemental Environmental Impact Statement and Resource Management Plan Amendment. BLM, Buffalo Field Office, Buffalo, WY. September 2019.

<sup>3</sup> BLM Buffalo Field Office FSEIS and Proposed RMPA, May of 2024.

The Counties, and specifically Campbell and Johnson Counties, have been engaged in this particular planning process with the BLM for years and will remain committed to continuing work as cooperating agencies to address challenging problems. Campbell and Johnson Counties have consistently provided input regarding adjustments to the CDPA, addressing the effects of global climate change and greenhouse gas emissions and adjusting to constantly changing market fluctuations, all the while promoting strong economic growth and quality livelihoods for our citizens. However, the Biden Administration and BLM Headquarters (HQ) has taken the meaning of cooperation and coordination with local governments to a new low.

Throughout this most recent RMPA SEIS NEPA process, no matter what information the cooperators submitted or the challenges that were identified, they were ignored by the federal agency. It is baffling that a federal agency would have such disregard for our local communities, state, industries and workforce that invoke tireless effort into ensuring that the lights stay on across this country to provide reliable, affordable energy – not to mention – investment of billions of dollars to responsibly address advanced technology to curtail carbon dioxide emissions – all for not.

BLM has ignored our input and unilaterally gone forward with a “no future leasing of coal” decision that is contrary to county and state policy and will have far reaching, harmful, impacts on our communities, state and the nation moving forward. The federal agency has not sufficiently demonstrated that “no coal leasing” is the most prudent path forward and the Counties contend that the decision is arbitrary and capricious and must be reconsidered in the Record of Decision.

To emphasize the impact of this decision, Campbell County is unique as our lands are comprised of approximately 83% *private surface* and an estimated 87.5% *federal minerals*. We are also an energy rich area with an estimated forty percent (40%) of the nation’s BTU’s being produced from the surface coal mines located in the area. Coal production is not only critical to our county, state and school systems but also for the nation in meeting energy demands. Furthermore, Wyoming remains a national leader in coal technology development and research and in May of 2018, the Integrated Test Center (ITC) officially opened in Gillette, Wyoming. The center provides space for researchers to test Carbon Capture, Utilization and Sequestration (CCUS) technologies using actual coal-based flue gas. Research at the facility will help support jobs, local and state economies and keep electricity prices low for millions of people around the country.

Converse County is rich in federal resources as our lands are comprised of approximately 76% *private surface* and an estimated 60% *federal minerals*. The Antelope Mine is partially located in Converse County and is the major coal mine that accounts for coal production in the County. Up until 2021, coal has been one of the largest and most stable sources for revenues over the past several decades. Today, the influence of coal is through good paying jobs, both on the mine site, and secondarily with services and transportation of employees. We are, however, an energy rich area with a significant percentage of oil and natural gas located in the area. Mineral production is not only critical to our county, state and school systems but also for the entire nation in meeting energy demands.

Johnson County holds approximately 31% federally owned land with the largest portions being held by the BLM at 20%. Coal and other mining resources have contributed significantly to the development and current custom, culture and economy. The extraction and sale of coal and mining material employs a significant percentage of residents and is a major contributor to the tax base for not only the county but

the municipalities as well. Coal, timber, natural gas, oil, bentonite, and uranium mining contribute extensively to the development and the current custom, culture, and economy of Johnson County.

Overall, Wyoming embraces an all-of-the-above energy strategy. We are an energy rich state that exports a significant percentage of the energy we produce. The Counties recognize the need and value in having a diverse energy production portfolio; however, continued coal produced from Wyoming mines and especially the CDPA is essential to meet not only thermal coal baseload electric grid generation needs in this country but also for the advancement of non-thermal uses of coal to assist in securing the domestic supply chain.

### **Participation in the Process**

Campbell and Johnson Counties have been actively engaged as throughout this Resource Management Plan Amendment (RMPA) and accompanying supplemental draft environmental impact statement (SDEIS) processes as cooperating agencies. All three Counties have participated in the process and have submitted comments on the SDEIS, attached hereto and are incorporated by reference.<sup>4 5 6</sup> The Counties have consistently and strongly opposed Alternative A, the alternative BLM adopted in the proposed RMP amendment. Under Alternative A, no future federal coal would be available for leasing within the planning area, which will have significant impacts on the Counties, the region, the State and the nation.

In addition, Campbell and Johnson Counties have a long-standing interest in the RMPA process as we have participated as cooperating agencies throughout the 2019 SEIS RMPA as well, of which comments have been submitted and are incorporated herein for the record.<sup>7 8 9 10 11</sup>

### **Parts of the Plan Being Protested**

Through comments submitted during the scoping process and on the DSEIS, the Counties have raised concerns with many aspects of this RMPA and these concerns have not been resolved in the FSEIS. Therefore, the Counties protest the following parts of the FSEIS the RMPA:

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<sup>4</sup> Attachment 1 -- Campbell County Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) Comments for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated August 3, 2023.

<sup>5</sup> Attachment 2 - Johnson County Comments on Draft Environmental Statement for Coal Screening Comments dated August 3, 2023.

<sup>6</sup> Attachment 3 -- Converse County Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) Comments for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated August 3, 2023.

<sup>7</sup> Attachment 4 - Campbell County Buffalo Coal Supplemental Draft Environmental Impact Statement (SEIS) and Resource Management Plan Amendment Comments dated August 14, 2019.

<sup>8</sup> Attachment 5 - Campbell County Buffalo Coal Final Supplemental Environmental Impact Statement (SEIS) and Resource Management Plan Amendment Comments dated November 4, 2019.

<sup>9</sup> Attachment 6 -- Campbell County Buffalo Resource Management Plan (RMP) Supplemental Draft Environmental Impact Statement (EIS) Scoping Comments dated November 1, 2022.

<sup>10</sup> Attachment 7 - Johnson County Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the 2015 Resource Management Plan Comments dated December 24, 2018.

<sup>11</sup> Attachment 8 - Johnson County Buffalo Field Office Resource Management Plan Supplemental Environmental Impact Statement Comments dated November 2, 2022.



1. Chapters 1-3:
  - a. Purpose and Need
  - b. Alternatives
  - c. Affected Environment and Environmental Consequences
2. All of the Appendixes:
  - a. Coal Screening Process
  - b. Reasonably Foreseeable Development
  - c. Air Resources Technical Support Document
  - d. Economic Technical Support Document
  - e. Environmental Justice Support Document
  - f. Coal Use Electric Generating Units
  - g. Glossary
  - h. Public Comments and BLM Response
  - i. Sample Private Landowner Letter

A description detailing needed changes to each of these sections is included below.

#### **I. General**

- a. State of Wyoming – The Counties endorse comments submitted by the State of Wyoming including the Wyoming Department of Environmental Quality (WDEQ) and incorporates them by reference.

#### **II. BLM Incorrectly Identified the Preferred Alternative as Alternative A (No Leasing)**

As the basis for this Supplemental Environmental Impact Statement (SEIS), in 2019 and in compliance with the United States District Court for the District of Montana court order (*Western Organization of Resource Councils et al. v. BLM*), the BLM amended the 2015 Buffalo RMP. In August of 2022 the Court again invalidated the 2019 Buffalo RMP SEIS based upon an inadequate environmental analysis violating NEPA and once again required additional analysis to be completed. The court order specifically required: 1) The BLM must complete new coal screening and NEPA analysis that considers a no leasing and limited coal leasing alternatives, 2) The BLM must disclose the public health impacts, both climate and non-climate of burning fossil fuels (coal, and oil and gas) from the planning area.”<sup>12</sup> While the court specifically identified the range of alternatives to be analyzed, the court did not mandate a particular outcome. Therefore, the Counties strongly oppose BLMs identified preferred alternative as Alternative A (No Leasing) and contend that the federal agency did not adequately provide compelling evidence to choose a “no coal leasing” alternative.

It is clear that the Biden Administration has unleashed a barrage of anti-fossil fuel directives, which appears to support a no coal leasing agenda of which the BLM Headquarters (HQ) has adopted. On several fronts, the Administration is working to suffocate the hydrocarbon industry and any future it may have by issuing policies and regulations that stifle coal, oil and gas leasing and production. Examples of recent rules, policies and NEPA documents include, but are not limited to, the following:

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<sup>12</sup> BLM Buffalo Field Office FSEIS and Proposed RMPA, May of 2024.

- a. Eliminating federal coal leasing through this Buffalo FSEIS and the identification of the preferred alternative as Alternative A (No Leasing);
- b. BLM Conservation and Landscape Health Final Rule;
- c. BLM Rock Springs Resource Management Plan Draft Environmental Impact Statement Preferred Alternative (Alternative B emphasizes resource conservation);
- d. The EPA Final Rule on New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units;
- e. BLM Final Rule on Fluid Mineral Leases and the Leasing Process; and
- f. Numerous Climate Change Executive Orders that are targeted at limiting or eliminating fossil fuel leasing and development now and in the future.

While this is certainly not an exhaustive list, it does support the premise that the Biden Administration, through its agencies including BLM as a land management agency, is actively and aggressively moving toward elimination of coal, oil and gas use. These misguided directives will not support increased needs in energy consumption when hydrocarbon fuels still support a significant percentage of the nation's electricity nor does BLM allow for advanced technologies to move forward if the feedstock is eliminated from access and future use. The Administration's goals are misguided, the focus should be on decarbonization and CO2 curtailment of emissions - that is the issue at hand.

In 2022, the Biden Administration identified Wyoming as a "Priority Energy Community" by the U.S. Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. Through the Infrastructure and Investment Jobs Act (IIJA) and the Inflation Reduction Act (IRA) the Administration has appropriated the Department of Energy (DOE) at unprecedented funding levels to promote the timely evolution of advanced technologies for coal to reduce carbon emissions. These demonstration projects are currently underway and they need a chance to ascertain whether or not commercialization is possible. Coal is still being used as a value-added feedstock for supply chain materials. It would be premature to make a determination of no coal leasing until these projects reveal a clear path forward.

For example, DOE plays a significant role in working with the University of Wyoming (UW) School of Energy Resources (SER) on several grants being carried out at the Integrated Test Center (ITC). The ITC provides space for researchers to test Carbon Capture, Utilization and Sequestration (CCUS) technologies using actual coal-based flue gas. In addition and outside of the ITC, there are multiple projects in various phases utilizing coal as the raw material for the advanced technology. Following are projects that are currently in affect today in the Northeast Region of Wyoming including the affected Counties.<sup>13 14</sup>

- **Wyoming CarbonSAFE** -

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<sup>13</sup> Content is original material compiled by UW SER: <https://www.uwyo.edu/ser/index.html>.

<sup>14</sup> Content from the Wyoming Energy Authority regarding Energy Matching Fund grant opportunities and awardees: <https://wyoenergy.org/energy-matching-funds/>

The Wyoming CarbonSAFE Project, which stands for Carbon Storage Assurance Facility Enterprise, is one of thirteen original carbon capture, utilization, and storage (CCUS) project sites in the U.S. funded by the DOE with the ultimate goal of ensuring carbon storage complexes will be ready for integrated CCUS system deployment. With the advancement of each stage and varying success, fewer sites continued to the subsequent stages. Four of the original thirteen projects have advanced to Phase III, including sites in North Dakota, Alabama, and Illinois. One new project located in New Mexico has joined the program.

- **Wyoming Innovation Center** – UW SER's Coal Processing Technology Field Demonstration Project (State funded)

The facility boasts close proximity to three major coal mines in the area enabling easy access for large scale technology testing on coal. UW SER's project is aimed at utilizing Powder River Basin coal as a feedstock for coal-derived products including construction materials, soil amendments, and much more.

- **Integrated Test Center (ITC)**

Purpose: To provide a technology neutral test center to facilitate the development of new Carbon Capture, Utilization technologies. There are currently five vendors utilizing the ITC: TDA Hybrid Membranes/Sorbent; GTI OSU membrane; KHI Sorbent; CSU/UWYO; MTR

TDA Research: DOE Office of Clean Energy Demonstrations announced in February the selection of TDA to negotiate an award of up to \$49M to test a carbon capture system with the aim of testing a sorbent-based, post-combustion carbon capture system capable of capturing 158,000 metric tons of carbon dioxide each year (equal to 35,000 gasoline-powered cars).

Membrane Technology and Research (MTR): Awarded \$4.6M from DOE Office of Clean Energy Demonstrations for an integrated carbon capture and storage project.

CSU/UWYO: ITC hosting a \$2.5M project with CSU/UW and Living Ink Technologies to convert an industrial source of carbon dioxide into high-value materials through an algae-based carbon transfer process.

- **Powder River Basin CORE-CM**: Advancing Strategies for Carbon Ore, Rare Earth Element, and Critical Mineral Resource Development in the Nation's Largest Coal Producing Basin

The primary objectives of the project are to establish and initiate strategic plans that address all aspects of carbon ore, rare earth element, and critical mineral (CORE-CM) resource development and to promote economic growth and workforce development centered around the nation's largest coal mines in the Powder River Basin of Wyoming

and Montana. The project will bring together a committed team of project partners and stakeholders from across the Powder River Basin. The project aims to maximize development potential of carbon ore, rare earth element, and critical mineral resources while leveraging the highly trained workforce, existing coal technologies, energy infrastructure, and wide public acceptance of energy technology in the basin.

The project team will complete initial assessments, gap analyses, and strategic plans for: (1) resource evaluation, including an initial geologic model of CORE-CM resources in the Powder River Basin; (2) CORE-CM potential of regional waste streams; (3) infrastructure, industry, and business; (4) technology development and field testing; (5) technology innovation centers; and (6) stakeholder outreach and education, including workforce development programs and forums to facilitate technology transfer.

The Powder River Basin CORE-CM project will promote economic development and workforce training associated with all aspects of the CORE-CM value chain. Strategic plans will identify resources and opportunities to advance CORE-CM technology and innovation. A key component of the PRB CORE-CM project is to connect stakeholders through workshops, conferences, and digital media.

- **Rare Earth Elements Extraction** - DOE Technology Commercialization Fund

The \$1.62 million, three-year project involves NETL, the UW SER, Campbell County, the city of Gillette and Energy Capital Economic Development. The project will create a pilot-scale production facility at the Advanced Carbon Products Innovation Center, now under development in Gillette, to demonstrate the economically viable production of rare earth elements from coal-related feedstocks.

- **Black Hills/Babcock & Wilcox** -Wyoming Energy Authority Matching Funds

Project Vision and Plan: BrightLoop is a groundbreaking chemical looping process that converts PRB coal and other natural resources into low carbon hydrogen and isolates a stream of carbon dioxide (CO<sub>2</sub>) without requiring expensive carbon capture equipment. The ultimate goal of this project is the construction and demonstration of a BrightLoop facility that produces 15 metric tons of H<sub>2</sub> per day (MT/day).

The successful completion of this project will set the foundation for expanded hydrogen production using PRB coal, not only at the WyoDak mine in Campbell County but across the State of Wyoming. The Project Partners envision this project as a stepping stone towards a larger endeavor capable of supplying an additional 200 MT/day of H<sub>2</sub> to BHE's Neil Simpson Complex. Such an expansion will significantly contribute to the reduction in CO<sub>2</sub> since the H<sub>2</sub> can be used in combustion turbines and boilers. More BrightLoop plants will bring broader economic impacts, including the potential production of useful chemicals such as ammonia, methanol, and fuels.

Benefits to the State of Wyoming: BrightLoop technology has the potential to transition Wyoming from a traditional “mineral” economy to a higher value “molecule” economy,

which will provide renewed growth in the decades to come. In addition to supporting the long-term development of the local supply chain, the proposed project will lead to immediate job generation due to civil works and laying down foundations in Phase I. Further construction, operation and maintenance jobs will be created during Phase II. Finally, a Phase III construction and operation of a 200 MT/day facility would provide an economically favorable path to continue use of Wyoming's coal reserves and allow Wyoming to attain an industry leading leveled cost of hydrogen below \$1 per kg.

- **Cowboy Clean Fuels** - Wyoming Energy Authority Matching Funds

Cowboy Clean Fuels, LLC (CCF) is an early-stage clean energy and climate tech company with offices in Gillette, WY and Denver, CO, that was established to commercialize technology developed at the University of Wyoming (UW). CCF is actively developing its inaugural commercial venture in Wyoming's Powder River Basin (PRB) of Campbell County, the "Triangle Unit Renewable Energy and Carbon Capture and Storage Project" (TRECCS). This groundbreaking Project is an example of Wyoming's energy future, harnessing economically depleted coalbed methane (CBM) resources and leveraging existing natural gas infrastructure to produce low-carbon renewable natural gas (RNG) from locally available organic feedstocks, while simultaneously capitalizing on the inherent capacity of coal to permanently sequester substantial quantities of carbon dioxide (CO<sub>2</sub>).

- **Membrane Technology and Research (MTR)** - Wyoming Energy Authority Matching Funds

In this project, Membrane Technology and Research Inc. (MTR) is advancing their innovative membrane-based post-combustion carbon capture process through the final pre-commercial stage of development. The goal of this Department of Energy (DOE)-funded project is to design, build, and operate a 150-tonne-per-day (TPD) large pilot CO<sub>2</sub> capture system at the Wyoming Integrated Test Center (WITC) in Gillette, Wyoming. The MTR Large Pilot plant will process a 10megawatt-electric (MWe) equivalent slipstream of flue gas from Basin Electric's Dry Fork Station coal power plant, achieve greater than 90% CO<sub>2</sub> capture rate, and produce pipeline quality CO<sub>2</sub>. Site construction at WITC began in July 2023 with a scheduled commissioning date in late summer 2024. Successful operation of MTR's Large Pilot will be an important validation of this environmentally friendly carbon capture approach. It is also an integral step for another MTR project at Dry Fork Station recently awarded by the DOE Office of Clean Energy Demonstration (OCED) that covers Phase I of a full-scale, integrated carbon capture and storage program. This overall effort will position Dry Fork Station to be a low-carbon emitting, base-loaded generation asset for many decades to come, and will showcase a clean, affordable capture option for industries utilizing coal in Wyoming and beyond.

As is demonstrated, there are multiple projects in place, in varying stages, utilizing PRB coal. In addition to the information provided above, the Campbell County Commissioners submitted

supplemental information to BLM to be considered in the FSEIS.<sup>15</sup> In an effort to bolster the need for additional coal leasing and from the data and discussion provided in that submittal, the U.S. will require several hundred million tons of PRB coal to be mined annually to support a low carbon products industry, which include but are not limited to: critical mineral and materials recovery, asphalt materials from PRB coal, building materials from PRB coal, agriculture soil amendment products from PRB coal, and utilizing PRB coal for hydrogen production. Additionally, new sources are provided that support the thermal use of coal beyond 2040 which will have carbon capture and storage technologies associated with clean coal used for electricity generation. This will strengthen the need for coal products in the future and enforce the need to continue with a coal leasing program long-term.

The demand for PRB coal will grow as the demand for clean low greenhouse gas products produced from carbon ore expands to support a carbon managed economy. PRB coal should be also viewed as a valuable carbon ore that has many unique properties to manufacture advanced materials for the future carbon managed economy. It also contains critical minerals and rare earth elements that when extracted can help the manufacture and deployment of renewable energy systems. Losing the ability to access the PRB coal resources will make the transition to a carbon managed society much longer and more costly. We contend that burning coal is not the issue, the release of CO<sub>2</sub> is the issue. If the true goal is to reduce or eliminate CO<sub>2</sub> emissions into the atmosphere, then CO<sub>2</sub> should be the focus. The reduction of CO<sub>2</sub> can be achieved and coal can continue to provide reliable, low-cost energy through the deployment of CCUS.

As Wyoming Governor Mark Gordon noted in his DSEIS comments “The BLM' s approach also neglects to account for any coal that may be extracted for purposes other than thermal... this Administration's Department of Energy's Office of Fossil Energy and Carbon Management announced \$6 million to develop useful products from coal and coal wastes. Their February 16, 2023 press release noted, "Coal's unique structure and composition make it well-suited for use as a raw material for producing various high-value carbon products like carbon nano-materials, activated carbons, and graphite, which may be used for computer memory devices, LED lighting, solar photovoltaic cells, batteries, capacitors, sorbents, catalysts, membranes, and medical imaging. Again, artificially limiting the volume of coal allowed to be leased will prevent any additional uses of coal to be explored beyond what is deemed by the EIA to be minimum demand.”<sup>16</sup>

In addition, through the IWG, the Biden Administration is offering substantial funding opportunities to promote technological advancements of low emission products using coal as the source to meet the needs of the nation's supply chain; however, at the same time BLM is single handedly stealing the feedstock needed for these projects and is suffocating any opportunities for further advancement. This BLM decision is contrary to the work DOE is financially supporting and the Biden Administration seems to be at odds with its own directives of policies and guidance to its individual federal agencies.

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<sup>15</sup> Attachment 9 – Campbell County Supplemental Information Submitted to BLM regarding the 2023 Buffalo Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated September 19, 2023.

<sup>16</sup> Attachment 10 -- Comments submitted by Wyoming Governor Mark Gordon, Buffalo RMP Amendment SEIS: DOI-BLM-WY-P070-2022-0115-RMP-EIS, dated August 3, 2023.

BLM failed to include a detailed analysis in the FSEIS that looked at detailed impacts to no further leasing of coal and what that decision will have on further advancements of non-thermal uses of coal and products needed for the supply chain, which in turn supports domestic manufacturing and job creation. BLM also did not disclose the impacts of their decision as it pertains to DOE research, development, demonstration and commercialization of projects that are ongoing and exploring new ways to develop low or no emission technologies – without the feedstock, these opportunities simply will not happen.

It is puzzling why BLM would handcuff the nation by restricting opportunities for economic diversification as there are strategic priorities when it comes to domestic energy production and national security needs, which includes critical minerals stemming from coal. It is for all of these reasons that the Counties believe BLM's identification of the preferred alternative as Alternative A (No Leasing) is short-sighted, arbitrary and flawed and must be reconsidered in the Record of Decision.

### **III. BLM Failed to Adequately Consider a Formal Withdrawal by Congress of Coal Leasing in the PRB**

The Counties question BLM's path to amend the RMP without considering in further detail the removal of the CDPA as part of a formal withdrawal under the Federal Land Policy Management Act (FLPMA) Section 204(c), which requires congressional approval and not just a Plan Amendment to the Buffalo RMP. In its previous comments, the State of Wyoming even asked BLM to consider a specific withdrawal alternative that evaluates a scenario where the Secretary adheres to the required withdrawal procedures. That alternative would clearly fall within the scope the District Court's order. The FSEIS and Plan Amendment, however, fails to take into account the requirements as set forth in the Federal Mineral Leasing Act (MLA) of 1920 as amended, the FLPMA of 1976 as amended, the Mining and Mineral Policy of 1970, and the Fair Market Value Policy for Leasing Federal Coal of 1984. The FSEIS fails to adequately analyze and respond to comments under Appendix H as to the question of why BLM chose to pursue an administrative withdrawal versus a congressional withdrawal as provided by FLPMA Section 204(c)(1) specific to more than 5,000 acres, which the CDPA clearly meets that threshold.

For the BLM to state in Appendix H (Public Comments and BLM Response to Comments) that "While these policies may encourage coal mining, just as with the Mineral Leasing Act and FLPMA, they do not mandate that coal mining be authorized wherever coal reserves may be present." Certainly, this is not the case with the CDPA as it is a specified area with rich coal reserves that has been developed for decades and is not just an area where coal reserves are present. The CDPA has a track record of producing billions of tons of coal for mainly thermal use but also non-thermal uses and should remain intact for continued leasing.

Furthermore, BLM did not identify any new important resource values or land uses that were not included in the unsuitability criteria. The CDPA has been managed for decades as the highest and best use of that land being coal extraction. Now, based on a court order, BLM has determined that in order to support a policy to limit the effects of climate change by a reduction of greenhouse gas emissions, the entire CDPA should be declared unsuitable for coal mining. BLM has expanded the unsuitability criteria without adhering to the required and mandatory process necessary to

remove land allocation decisions by eliminating the long established CDPA. BLM failed under this process.

On page 2-1 of the FSEIS, BLM states “Under Alternative A, the No Leasing Alternative, the application of the multiple-use screen would result in the CDPA being unacceptable for future consideration of federal coal leasing throughout the duration of the planning period (through 2038). At the end of the planning period an RMP revision would reevaluate land use allocations. Under Screen 3, 48.12 billion short tons of coal were removed from consideration in order to reduce GHG emissions as a proxy for climate change in response to the court order. The BLM would not accept new coal lease applications, only existing leases could be developed. Existing coal leases would continue through their associated lease terms and could be developed.”

The court order only required BLM to consider the option of no leasing or limited leasing and did not require the BLM to choose it as the preferred alternative in the FSEIS document. The no leasing option circumvents congressional review authority by creating a “defacto” withdrawal without following the requirements of FLPMA and removes an entire mineral resource area from potential development in an effort to satisfy a court order based on national policy directives. This is not a prudent strategy for managing national security and meeting domestic energy demands.

BLM indicates in the FSEIS that under the “No Leasing” Alternative, there would be “adverse” economic impacts to the local community and state as a whole. This analysis is overly simplified as the loss of coal leasing in the PRB would be devastating to the local and state economies that rely on the severance taxes and federal mineral royalties from the extractive industry, including Wyoming’s educational system. At essence, BLM failed to adequately consider the cumulative impacts of its no leasing alternative on state and local economies. 40 C.F.R. § 1508.7 (2022) (defining cumulative impacts). This decline in education funding could, in turn, exacerbate the socioeconomic difficulties of Wyoming’s communities. BLM should conduct a thorough evaluation of the economic impacts of a complete withdrawal of leasing opportunities before choosing a preferred alternative. A detailed discussion regarding socioeconomic impacts from this decision is addressed further below (IX. BLM Failed to Adequately Consider Socioeconomic Impacts of a No Leasing Decision).

Finally, BLM is scheduled to initiate an RMP Revision around 2038 and this timeframe would be more appropriate to look at land allocations and leasing of coal as the decision to eliminate leasing now is not ripe. The market should be at a place where we can better determine actual coal needs for both thermal and non-thermal uses. Until then, the CDPA should remain intact and coal should be made available for lease. Therefore, the Counties contend that BLMs decision to remove the Coal Development Potential Area (CDPA) for any future leasing is flawed and the federal agency must pursue a formal withdrawal under FLPMA Section 204(c), which requires congressional approval and not just a Plan Amendment to the Buffalo RMP.

#### **IV. Failure of BLM to Adequately Consider Thermal Uses of Coal**

The coal produced in Wyoming, and specifically the PRB, is currently available to power the nation’s baseload thermal energy production for decades to come. Even under the most aggressive energy transition predictions, the need for thermal coal baseload power will continue



well beyond the 2040 timeframe. Statistics show that the US and the world are going to require more energy in the future and without a broad-based strategy for energy sources, the demand may very well outpace the supply. The need for the nation's security and a strong economy will demand that electricity remain reliable and affordable, requiring the use of coal-fired power.

On page ES-11 of the FSEIS, BLM states "...No opportunity would be available to develop or maintain alternative coal uses or carbon capture technology beyond 2041, unless a RMP amendment or new RMP allocates additional coal for leasing consideration."

The Counties understand that the market is demanding reliable, affordable energy along with emission reductions. We embrace technologies like Carbon Capture, Utilization and Storage (CCUS). Some of Wyoming, and the nation's coal-fired power plants are ideal for CO<sub>2</sub> capture and it is predicted that coal-fired generating units operating after 2040 will have installed carbon capture and storage technologies and will remain in operation for decades requiring a consistent supply for clean coal reduced carbon electricity.<sup>17</sup> . If the true goal is to reduce or eliminate CO<sub>2</sub> emissions into the atmosphere, then CO<sub>2</sub> should be the focus. The reduction of CO<sub>2</sub> can be achieved and coal can continue to provide reliable, low-cost energy through the deployment of the advancement of carbon capture and new low/no emission technologies.

To demonstrate Wyoming's leadership in this arena, the UW SER website describes that researchers at UW are currently funded by the U.S. Department of Energy (DOE) to advance a potential large-scale integrated CO<sub>2</sub> storage project near Gillette, Wyoming, known as the Wyoming CarbonSAFE project. The Wyoming CarbonSAFE Project, which stands for *Carbon Storage Assurance Facility Enterprise*, is one of thirteen original carbon capture, utilization, and storage (CCUS) project sites in the U.S. with the ultimate goal of ensuring carbon storage complexes will be ready for integrated CCUS system deployment.<sup>18</sup> Please refer to the project list noted in Section II above under "BLM Incorrectly Identified the Preferred Alternative as Alternative A (No Leasing)."

If coal leasing is discontinued and specifically for thermal energy purposes, BLM must take a hard look at and analyze where sufficient energy resources will come from to meet energy grid demands in the United States. Coal continues to be an abundant, affordable and reliable energy source and without future leasing and thermal coal production our domestic energy security would be at risk. BLM must recognize the demand for future uses of PRB coal beyond the statement that the RMP could be amended to reconsider land use allocations when the demand may increase. Removing the feedstock from access will only exacerbate the problem and there will be a tipping point in which mines close, are reclaimed and it becomes uneconomic for the private sector to restart mining operations.

To eliminate leasing of coal in the PRB is irresponsible and it threatens our nation's energy security removing our ability to provide reliable and affordable energy to meet increased demands. Until we better understand the needs for coal in both thermal and non-thermal uses now and in the

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<sup>17</sup> Attachment 9 - Campbell County Supplemental Information Submitted to BLM regarding the 2023 Buffalo Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated September 19, 2023.

<sup>18</sup> Content is original material compiled by UW SER: <https://www.uwyo.edu/ser/index.html>.

future, the Counties believe BLM's identification of the preferred alternative as Alternative A (No Leasing) is short-sighted, arbitrary and flawed and must be reconsidered in the ROD.

#### **V. Failure of BLM to Adequately Consider Non-thermal Uses of Coal**

BLM should also consider in greater detail advancements in coal development, technology improvements, and new products derived from coal, which include but are not limited to, CCUS, carbon capture and storage (CCS), carbon fiber, coal-to-products and extracting Critical Minerals (CM) and Rare Earth Elements (REE). This will strengthen the need for coal products in the future and enforce the need to continue with a coal leasing program long-term. BLM's addition of the "Alternative Coal Uses" section concedes that non-thermal uses of coal are relevant and have reasonably foreseeable effects that are not examined in the FSEIS. For example, BLM did not consider the cumulative effects that CCUS, CCS, CM, and REE might impact its emissions calculations. In other words, BLM does not meet its NEPA obligations by merely acknowledging the existence of relevant factors, it must also take a hard look at the consequences of its proposed action on those factors.

New technology is being discovered every day and while many innovative ideas are either in the research and development or demonstration phases, some are advancing to commercialization faster than we realize. Products under development include, but are not limited to, components for asphalt for roads and roofing materials, building materials (bricks, foam, drywall, pavers, aggregate for roads and other products), graphene oxide, soil amendments that can be used in reclamation, and polymer products (decking material) and carbon membranes for water purification. Graphite, a major component of batteries of electric vehicles, is also being studied as a by-product of coal. Without the future leasing of coal in sufficient quantities, these potential advances for the use of coal will never come to fruition. This would be a significant loss the greater public and our national security.

Losing the ability to access the PRB coal resources will make the transition to a carbon managed society much longer and more costly. The PRB coal/carbon ore is one of the only low cost and abundant feedstock with mining and transportation infrastructure (rail) in place to immediately start production of these materials in quantities to meet the domestic and international emerging markets now, through 2050 and beyond.

The Counties maintain that new technology is being discovered every day and can change quickly. Based on the supplemental information submitted to BLM from Campbell County,<sup>19</sup> it is imprudent to eliminate leasing or significantly curtail leasing before we truly understand the market conditions for thermal and non-thermal uses of coal.

BLM must recognize the demand for future uses of PRB coal beyond the statement that the "...RMP could be amended to reconsider land use allocations when the demand may increase." Removing the feedstock from access will only exacerbate the problem and there will be a tipping

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<sup>19</sup> Attachment 9 – Campbell County Supplemental Information Submitted to BLM regarding the 2023 Buffalo Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated September 19, 2023.

point in which mines close, are reclaimed and it becomes uneconomic for the private sector to restart mining operations.

As discussed already, through advanced technologies, PRB coal continues to add value for non-thermal uses and is critical in meeting the countries short and long-term demands for the supply chain. The Counties still contend that the BLM is scheduled to amend the RMP sometime around 2038 which would be a more appropriate timeframe to analyze for changes in land use allocations. The market should be at a place where we can better determine actual coal needs for thermal and non-thermal uses and until then, the prudent measure would be to keep the CDPA in-tact and available for lease.

## **VI. Failure of BLM to Adequately Consider Potential Export Opportunities**

BLM states on page 3-98 "...While coal exportation has the potential to counteract domestic demand reductions, exports are limited by foreign competition and transportation costs, as well as a high degree of variability in demand (Institute for Energy Economics and Financial Analysis 2019). No coal from the BFO local analysis area is presently exported, and no future exportation is reasonably foreseeable."

It is common knowledge that China and India are the world's largest consumers of coal. Instead of looking for ways to reduce or eliminate coal leasing and production in the United States, the federal government, and in particular the Biden Administration, must support and promote all opportunities to export our coal products overseas to meet these global demands for energy. This would be a win-win strategy for Wyoming, the U.S. and the world in working to reduce carbon emissions and provide affordable, reliable dispatchable energy globally.

In response to Campbell and Converse Counties comments regarding "coal export opportunities," BLM responded in Appendix H Row #45 "The export of Wyoming Powder River Basin coal out of the United States is highly unlikely...A new export terminal on the US West Coast is unlikely...While a small amount of Montana Powder River Basin coal has been exported, between the uncertain international market, lack of US export terminals, and the transportation costs, the exportation of Wyoming coal is not foreseeable." BLM's own acknowledgement that coal export "has the potential to counteract domestic demand reductions" concedes that export opportunities are reasonably foreseeable. Yet the BLM casually dismissed the issue with a single conclusory statement and no analysis.

It is also important to note that the DOE researchers at the National Energy Technology Laboratory assessed various types of coal in the United States. Subbituminous PRB coal is among the lowest in terms of global warming impacts and provides other environmental benefits over countries that that do not have that grade of coal.

The United States must pursue all options for marketing our energy products overseas should the market show a demand and the federal government must work with all impacted states to secure production, transportation and infrastructure opportunities domestically. This would in turn provide long-term socioeconomic benefits to not only Wyoming but the country. We must look for opportunities to promote and allow the exportation of coal to where there is a substantial

need for energy. This measure alone would assist in the reduction of Green House Gas (GHG) emissions internationally, provide good paying jobs and support vibrant communities.

## **VII. BLM Failed to Adequately Consider New Carbon Capture Technologies in Social Cost of Carbon Analysis**

The use of the Biden Administrations' Interagency Working Group on the Social Cost of Greenhouse Gases' (IWG) latest estimates regarding the "Social Cost of Carbon" in this analysis illustrates yet another example of the federal government solely considering information which leads to its predetermined desired outcome. Its use in the context of this RMP amendment is premature, beyond the scope of the SEIS and lacks legal and scientific support. The estimates are politically driven and not based on any sort of scientific certainty. This arbitrary figure is difficult to rectify when compared to the realities of costs associated with providing reliable, affordable energy while creating manufacturing opportunities and jobs.

The Counties do not support the use of metrics such as the SCC to be applied to the production of coal. The SCC assumes that all hydrocarbon fuels will be combusted with no carbon mitigation nor with the utilization of CCUS/CCS. In most all instances, greenhouse gas emissions will be mitigated and that should be taken into account. The Counties have already addressed that point that predicted coal-fired generating units operating after 2040 will have installed carbon capture and storage technologies and will remain in operation for at least 20-30 years, requiring a consistent supply for clean coal reduced carbon electricity. The Biden Administrations directive of applying a SCC tax is onerous and not scientifically supported. Any reference to SCC should be removed from the ROD.

## **VIII. BLM Inappropriately Analyzed Environmental Justice Effects within the Counties**

BLM notes on page 3-123 that "Forecasted reductions in coal demand for the fuel generation energy mix have the potential to reduce coal production in the socioeconomic analysis area. Collected fiscal revenues associated with coal production would also be reduced, and revenue losses would have disproportionately adverse effects on Wyoming counties that rely predominantly on coal mineral revenues to support public and social services and infrastructure. Continued coal market downturn under these alternatives over time could change or more strongly skew the communities that are identified as those for potential environmental justice consideration. As stated previously, a reduction in local jobs and income from associated coal-related job losses would result in more coal-reliant populations meeting the criteria for additional consideration as potential environmental justice communities, specifically with respect to low-income and Indigenous population criteria."

The Biden Administration has identified Wyoming as being a priority energy state and the Counties are all considered coal impacted communities that are working to diversify into low emission forms of energy generation in the future. The coal, oil and gas industries are the backbone of our State and the country; however, we are now entering a new energy space that will expand beyond our legacy industries moving toward net zero emissions technologies. We continue to aggressively pursue opportunities to promote advanced carbon-based research for low carbon, carbon neutral and carbon negative products which could include new innovative options such as Carbon

Capture, Utilization and Storage (CCUS), Carbon Capture Large Scale and Demonstration Projects, Direct Air Capture, Hydrogen Hub, renewable and nuclear energy opportunities.

The Counties cannot state clearly enough the importance of our ability to access federal lands to drive vibrant economic communities. The Counties challenge BLMs premise for determining block census tracks identified in Campbell and Converse County under both the FSEIS Affected Environment and Appendix E (Environmental Justice Support Document) as meeting the criteria for Environmental Justice communities. BLM uses their metrics to determine this designation by looking at total population, minority percentage per geographic area, Native American populations per geographic area, and low-income population per geographic areas. BLM, therefore, determined that several block census tracks meet the criteria for Environmental Justice areas due to coal leasing and production throughout the Counties. We would argue the opposite affect is true for all three Counties and its citizens for leasing and production of coal.

In its SDEIS, BLM defines “environmental justice” as “the fair treatment and meaningful involvement of all potentially affected people—regardless of race, color, national origin, or income.” (BLM IM2022-059) (adopting EPA’s definition). Pursuant to this definition, “fair treatment” means that “no group should bear a disproportionate share of the adverse consequences that could result from federal environmental programs or policies.” (Id.). On the other hand, “meaningful involvement” involves “allowing all portions of the population a meaningful opportunity to participate in the development of, compliance with, and enforcement of Federal laws, regulations, and policies affecting human health or the environment regardless of race, color, national origin, or income.”<sup>20</sup> This definition requires BLM to consider 1) whether groups and communities affected by BLM decision-making will bear a disproportionate share of the adverse consequences resulting from BLM programs and policies; and 2) whether those communities have been meaningfully involved in the decision-making process.

BLM states on page ES-12, Environmental Justice, for all alternatives that, “...it is anticipated that coal production would be reduced over time based on the EIA’s forecasted reduction in coal demand. Emission-related impacts on downstream environmental justice communities would decline with the reduced production; however, local adverse economic impacts on environmental justice communities are likely to increase with the loss of coal-related employment opportunities, social programs, and state and county revenues that fund public services such as general government operations, K-12 school operations, and major maintenance.”

Further, in the FSEIS on page Appendix E-6, BLM states “Additionally, the EJScreen tool relies on demographic and environmental estimates that involve substantial uncertainty.” BLM should provide the rationale for recommending specific actions and recommendations under the RMPA when it is acknowledged that EJScreen estimates involve substantial uncertainty.” In addition, the federal agency states “The EJScreen tool also assumes block group residents are distributed evenly across each block group; however, in reality, housing distribution patterns are not identical across block groups.” BLM should defer to any such information and policies provided by the state to address this subject, such as the Wyoming Department of Environmental Quality (WDEQ) Non-

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<sup>20</sup> Environmental Justice Guidance Under the National Environmental Policy Act 23 (Appendix A): <https://www.doi.gov/sites/doi.gov/files/uploads/EJ-under-NEPA.pdf>

Discrimination and Inclusion Policy<sup>21</sup> and the UW SER Center for Energy Regulation and Policy Analysis (CERPA) Toolkit,<sup>22</sup> and not rely on demographic and environmental estimates that involve substantial uncertainty.

Moreover, Wyoming communities will be disproportionately harmed by a BLM decision that eliminates coal leasing in the PRB. Wyoming's PRB is home to some of the world's largest surface coal mines, with many rural communities in Northeast Wyoming being highly dependent on the coal industry for jobs, tax revenue, and social services benefitting the communities and state. Since its founding as a railroad town in 1891, Campbell County, Wyoming has continued to evolve as a rural hub for industry, emerging as a state and even national leader in coal and oil and gas production. With a total county population of only ~47,000 working together to supply about 40% of the nation's coal for electrical generation, Campbell County and Gillette have proudly earned their reputation as the "epicenter of American coal."

In the FSEIS, BLM concludes that "...Wyoming environmental justice populations would be adversely impacted from the loss of coal-related economic revenue and social programs funded from coal production, unless a new RMP allocates additional coal for leasing consideration."

As energy markets have shifted away from coal, in part due to federal policy and market trends, coal communities in Wyoming are increasingly vulnerable to socioeconomic harm. All of Northeast Wyoming is designated a "Priority Energy Community" by the federal IWG on Coal and Power Plant Communities and Economic Revitalization. This designation signals a high dependence on coal, oil and gas jobs and the potential for severe economic harm should coal leasing or development decline is significant.

Wyoming is already feeling the effects of federal policies and market trends that disfavor coal, oil and gas. Analysis by the University of Wyoming shows that since peaking in 2008 (at approximately 467 million tons), Wyoming coal production has declined drastically, nearly halving in 2019 to 277 million tons. Employment has followed this trend. Employment in coal mines peaked in 2009 with 7,054 employees. In 2019, 5,399 employees worked in coal mines in the state, a 23.5 percent decrease from the 2009 employment level.

Not only does coal support the economic vitality of Wyoming communities, it also provides much-needed community support. Historically, mining companies in the PRB have partnered with and provided the majority of support for community service programs, including programs associated with substance abuse recovery and mental health. Although the Counties are not currently designated a "disadvantaged community" pursuant to BLM screening metrics for income and race, policies that limit the region's use of its abundant remaining coal reserves would result in severe socioeconomic harm to the region, potentially rendering the Counties and the region a "disadvantaged community" in the near future. This is partly the reason we disagree with the BLM determination that there are several census tract blocks that identify parts of Campbell and Converse Counties as meeting the eligibility for Environmental Justice with coal production. As

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<sup>21</sup> Attachment 11 – WDEQ Non-Discrimination and Inclusion Policy dated July 10, 2023

<sup>22</sup> UW SER Center for Energy Policy Analysis (CERPA) Community Benefit Plan (CBP) Tool --

<https://www.uwyo.edu/ser/research/centers-of-excellence/energy-regulation-policy/cbp-toolkit.html>

supported by the socioeconomic information submitted with these comments, we contend that without coal leasing and production, we would see more devastating impacts on our Counties and its citizens; therefore, the inverse to BLMs determination is true.

Given the strong support for coal that exists in these communities, local and state leaders are optimistic about the potential for carbon capture, utilization, and storage (CCUS) technologies to aid in the decarbonization of the U.S. coal industry, with demands for coal from the PRB are expected to persist for many years. In fact, community leaders in the Counties and the region envision that CCS/CCUS will be a leading regional industry in the near future. As noted above, the UW SER is also exploring new applications for the region's abundant coal resources to carry the economy into the future. Alternative applications for Wyoming's abundant remaining coal reserves, including the production of coal-based construction products and materials including CM and REE. By limiting the availability of coal for these applications, BLM could undermine the proactive efforts of potentially soon-to-be hard-hit communities to diversify and bolster their economies by finding low-carbon applications for the resources available to them.

Input from Wyoming communities should be meaningfully integrated in the decision-making process. The coal mining, oil, and gas sectors enjoy strong, vocal public support in the affected Counties, the region and Wyoming in part due to the high-paying jobs and significant tax revenue associated with energy development. Additional information regarding socioeconomic impacts is further discussed below.

The Counties are concerned that while we are working diligently and spending significant time and financial investments with the State and DOE to employ new advanced technologies to reduce carbon emissions thru research, development and demonstration projects, BLM, as the federal land management agency, is restricting access to the feedstock. This FSEIS analysis and the identification of Alternative A (No Leasing) as the preferred alternative will have a significant and detrimental impact on any future technological advancements by eliminating the raw materials needed for these opportunities which will in turn have a serious impact on the socioeconomics and environmental impacts to our communities, State and the Country.

It is only prudent that the BLM Environmental Justice analysis defer to any local or state information or policies that rely on demographic and environmental information looking at the accurate local impacts to communities and population segments. In its current form, the BLM's Environmental Justice analysis in the FSEIS is arbitrary and capricious.

#### **IX. BLM Failed to Adequately Consider Impacts of a No Leasing Decision**

Economic impacts do matter. Access to federally administered lands and resources are critical to ensure the socioeconomic well-being of our communities. In all three Counties, lands under federal or state control and decisions made for public land management can directly impact the service and non-service industries, public accessibility, and the demographics of an area. Effective coordination and consultation between the Counties, federal and state agencies is critical to ensuring that land management agencies thoroughly consider the effects that federal decisions have on the related custom, culture, and economic stability; conservation and use of the environment and natural resources along with multiple use. Counties receive revenue from

federal lands in many ways including mineral leasing and development, agriculture, recreation, travel and tourism, etc. Any curtailment of access to public lands will directly impact the socioeconomics of the Counties and the State.

On a statewide level, the most up-to-date information obtain from the Wyoming Mining Association highlights the following for coal production in all of Wyoming: In 2023, the financial contribution of coal mining to state and local governments in the form of taxes, royalties and fees was over \$654.3 million. Wyoming's share of federal mineral royalties – royalties paid on mining the leased federal coal - was over \$216 million (out of \$397 collected).

The no-leasing alternative will have very real impacts on families in Wyoming. The coal industry employs over 5,111 individuals directly (4,492 in the PRB) with a payroll of nearly \$500 million, and over 2,000 contractors. The average coal mining job pays over \$83 thousand per year, well above the state average of \$53 thousand. And every coal mining job supports another 2-3 jobs in the service and supply industry.<sup>23</sup>

Funding derived from mineral development constitutes a significant portion of revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Campbell County, but all counties, the State of Wyoming and its residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. Without that tax revenue derived from this industry, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety and security.

Specifically, Campbell County has a solid historical reliance on ranching and energy resource development, particularly coal mining and oil production. The energy industry has been the predominant economic driver since the 1980s, with a focus on the PRB. Furthermore, PRB coal is notable for its clean and cost-effective provision of affordable energy, with its production volume carrying international significance within the basin. The energy development activities have supported other related industries and catalyzed construction, retail, wholesale trade, transportation, accommodations, food service, and local government.<sup>24</sup>

Coal production significantly contributes to the economic framework, with positive implications for education, infrastructure, and the overall socioeconomics of Campbell County and the State of Wyoming. It generates high-paying employment opportunities and fosters a low-tax environment for families and businesses. Total employment in Campbell County has grown substantially since 1970, from about 6,000 jobs in 1970 to over 31,800 jobs by 2020. In 2019, mining employment comprised almost 20% of total employment in Campbell County (6,832 employees), more than in any other industry. The median household income in Campbell County was \$82,700, about 29% higher than the median income in the state of Wyoming (U.S. Department of Commerce).

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<sup>23</sup> Wyoming Mining Association: <https://www.wyomingmining.org/>

<sup>24</sup> Attachment 12 – Campbell County Socioeconomic Profile dated 2017



The coal industry also significantly bolsters the region's assessed valuation. In Fiscal Year 2023, the assessed valuation for coal in Campbell County stands at approximately \$2.4 billion, driven by a production volume of 237 million tons. Moreover, the combined assessed valuation for coal, oil, and gas for Fiscal Year 2023 surpasses \$4.1 billion. County revenues fund essential services such as law enforcement, county attorneys, public health, a children's developmental center, and other county services that benefit every citizen.<sup>25</sup>

Johnson County has a rich history in the mining industry as well, with 31.5% of our lands being federally owned with an even greater extent of federal minerals dispersed throughout our county. Presently there are 21,008 active mining claims on public lands with 6.5% of those claims actively producing. The coal seems run deep within Johnson County as the geologic formations that give rise to the Bighorn Mountains thrust upward creating a higher overburden on our recoverable coal than in Campbell or Converse County. None the less, the resource is available for the future needs of our country's energy security. The mining industry supported 384 jobs earning \$14.5 million. This represented six percent (6%) of the total employment and seven percent of Johnson County's total labor force, it is clear that the County's economy is dependent on a vibrant coal industry.<sup>26</sup>

The coal industry and associated activities has been the single largest economic driver in Converse County for decades. Since 1999 it has represented on average over 22% of the taxable value. This equates to over \$2 million dollars a year just to County Government for essential services like law enforcement, public health, fire departments and road and bridge repairs. This funding allowed Converse County to offer health insurance to employees and to invest in IT functions to secure against cyber-attacks. The list goes on and on, without this funding, the residents of Converse County would not have the quality of essential services they need and deserve.

Over the last decade, the average weekly wage for Mining and Mining related activities has exceeded \$1,600 in Converse County.<sup>27</sup> The multiplier effect applied to economic development and activity means these dollars are spent several times over in our County. These good paying jobs help families buy homes, support local business and fund their kid's college education. Without this money circulating in the community, everyone loses.

Outside of the direct economic return, coal has a positive social impact to our county. Over the last decade the average number of employees in the mining and related industries has exceeded 1,210 workers.<sup>28</sup> With their families, they represent a significant component of our residents. These are volunteer firemen, church leaders, civic club members and active members of the social fiber of our community. Their spouses are teachers, nurses, checkers at the supermarket, homemakers and volunteers. The removal of 1,200 workers and their families from the County devastates the social structure of our county and leads to social injustice.

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<sup>25</sup> Attachment 13 – Campbell County Valuation Revenue Mineral Production 1994-2023

<sup>26</sup> Attachment 14 – Johnson County Socioeconomic Profile dated 2018

<sup>27</sup> Attachment 15 – Converse County Coal and Railroad Employment and Wages (Source US Census)

<sup>28</sup> Attachment 16 – Converse County Historical Railroad Valuation since 1999 (Source Converse County Assessor)

BLM tries to convince the public that restricting or eliminating coal leasing is relative to the socio-economic benefits to Environmental Justice communities. BLM should provide additional information to demonstrate how those conclusions were made. If the socio-economic assessment is focused on the economic conditions in these communities, BLM should also provide information and assessments regarding the future for those communities if future activities that will bring jobs, economic benefit and revenues might be curtailed or eliminated long-term.

Furthermore, BLM must include and expand its analysis in Appendix D (Economic Technical Support Document) and Alternative E (Environmental Justice Support Document) of the effects funding and revenue decreases would have on local services, programs and communities as a whole should the no leasing decision be adopted in the Record of Decision. Moreover, the BLM should include an in-depth analysis on where those funding streams will be recovered if mineral leasing and development is eliminated long-term.

It should also be noted that throughout the DSEIS the socioeconomic analysis does not factor in “bonus bid” impacts from a no future leasing decision. On page 3-93, BLM states that “...Wyoming School Capital Construction Account has been historically funded through federal coal lease bonuses. However, coal lease bonuses...have declined to \$0 in recent years with no foreseeable return through at least 2026...” BLM neglects to include bonus bids lost through the decision to forego leasing. Bonus bid funds are dispersed to both federal and state programs. The Powder River Basin has already seen a reduction in the coal mine work force and this decision only encourages further negative impacts and harm under Alternative A (No Leasing).

Further to this point, on the Department of the Interior (DOI) website under the Office of Natural Resource Revenue (ONRR)<sup>29</sup> it recognizes that companies pay bonuses, rents, and royalties to extract natural resources on federal lands and waters. ONRR notes that “...After collecting revenue from natural resource extraction, the Office of Natural Resources Revenue distributes that revenue to different agencies, funds, and local governments.” The disbursement of those funds, including bonus bids, gets distributed to:

- **U.S. Treasury:** The federal government’s basic operating fund pays for roughly two-thirds of all federal expenditures, including the military, national parks, and schools.
- **State and local governments:** Funds disbursed to states fall under the jurisdiction of each state, and each state determines how the funds will be used.
- **Reclamation Fund:** Supports the establishment of critical infrastructure projects like dams and power plants.
- **Native American tribes and individuals:** ONRR disburses 100% of revenue collected from resource extraction on Native American lands back to tribes, nations, and individuals.
- **Land and Water Conservation Fund:** Provides matching grants to states and local governments to buy and develop public outdoor recreation areas across the 50 states.
- **Historic Preservation Fund:** Helps preserve U.S. historical and archaeological sites and cultural heritage through grants to state and tribal historic preservation offices.
- **Other funds:**

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<sup>29</sup> DOI ONRR Data: How it works -Disbursements, <https://archive.revenuedata.doi.gov/how-it-orks/disbursements/>

Wyoming is the largest coal producing state in the nation and produces well over 50% of all coal in the U.S. and by eliminating coal leasing in the PRB, BLM has significantly curtailed the funding stream of programs, which will create a significant environmental impact not only in Wyoming but across the country. BLM failed to assess and describe the environmental impacts on state and national programs going forward by the loss of coal production and the associated fee collections with a no future coal leasing decision.

In addition, an Abandoned Mine Land (AML) reclamation fee is assessed on every ton of coal produced. That fee for Wyoming surface mined coal is 22.4 cents per ton. Funds from the fee collection are used to reclaim mines that were abandoned prior to the enactment of the Surface Mining Control and Reclamation Act (SMCRA) in 1977. One half of the fee collected on Wyoming coal production is distributed to WDEQ for AML reclamation, and the second half is distributed to the remaining eligible states and tribes for AML reclamation purposes. Therefore, the loss of AML revenue associated with the “No Coal Leasing” decision makes it not only a socioeconomic impact but a reasonably foreseeable environmental impact that went unexamined by the BLM. BLM failed to assess and describe the indirect environmental impacts on state and national AML reclamation needs and programs going forward by the loss of coal production and the associated AML fee collection. *See* 40 C.F.R. § 1508.1(g) (2022) (defining both “indirect effects” and “effects” to include reasonably foreseeable ecological and social impacts).

Finally, BLM significantly undervalued the mineral contributions to the counties and state in the socioeconomic section by the exclusion of bonus bids and AML fees nor did they evaluate the environmental impacts that the no future coal leasing decision would have on disbursements to state and national programs. Further, the federal agency did not sufficiently analyze for the effects that funding and revenue decreases would have on local services, programs and communities. BLM failed to adequately include an in-depth analysis on where those funding streams will be recovered if mineral leasing and development is eliminated long-term.

**X. BLM Failed to Adequately Consider Consistency with County Natural Resource Management Plans**

The Federal Land Policy and Management Act (FLPMA), which governs the BLM, provides detailed requirements for “coordination” and “consistency” with local government land use plans. FLPMA states:

To the extent practical, the BLM must stay apprised of local land use plans. The BLM must assure that local land use plans germane to the development of BLM land use plans are given consideration. To the extent practical, the BLM must assist in resolving inconsistencies between local and BLM land use plans. The BLM must provide for the meaningful involvement of local governments in the development of BLM land use programs, regulations, and decisions. 43 U.S.C. § 1712(c)(9).

There is no indication in the FSEIS that BLM provided sufficient recognition of local land use plans or assured that those plans were given satisfactory consideration as required by FLPMA. Nowhere in the FSEIS does the BLM even quantify the local plans within the amendment area, not to mention, assure those plans are given consideration. At a minimum, the BLM should include a list

of the local land use plans that are within the amendment boundary, and all three Counties have included their County Natural Resource Management Plans in full as part of the record.<sup>30 31 32</sup> See 43 C.F.R. § 1610.4-4.

On page 1-14 of the FSEIS, BLM correctly notices that “The no-leasing and limited leasing alternatives are not consistent with the 2022 Campbell County Natural Resource Land Use Plan, which states the county’s policy as “. . . federally managed lands shall remain open and available for mineral resource exploration, development and production, unless administrative withdrawal or other action is necessary to protect the national security and withdrawal procedures are fully followed. The BLM is not consistent with this section of the Campbell County Natural Resource Land Use Plan because the Campbell County policy statement is not consistent with the purposes, policies, and programs of federal laws and regulations applicable to BLM-administered lands.”

Furthermore, in Appendix H of the FSEIS Row #121-128, BLM should more fully respond as to why they cannot be consistent to the maximum extent allowed by law with local plans. BLM responds similarly to all Campbell and Converse County claims stating “RMPs must be consistent with officially approved or adopted resource-related plans of other Federal agencies, state and local governments, and Indian Tribes to the extent the BLM finds those plans are also consistent with the purposes of FLPMA and other federal law and regulations applicable to public lands (43 CFR 1610.3-2(a)).” While BLM admits they need to be consistent with “state and local government” plans, they do not sufficiently explain why they can’t be consistent. BLM’s current laws and regulations allow for coal leasing and development in the CDPA and the federal agency should better explain why they are not consistent to the maximum extent allowed by law with local county plans regarding their decision to withdraw the CDPA from future leasing.

Johnson County supported the no action Alternative B in the DSEIS of the RMPA. Removing additional leasing acreages, as occurred in the 2018 revision to the RMP; reducing the availability of current and future lease acreages; or the prohibition of hydrocarbon extraction would conflict with Johnson County’s Natural Resource Management Plan (NRMP) and inflict insurmountable economic hardships upon Johnson County and its residents.

The no new coal leasing alternative would conflict with the Johnson County NRMP’s stated intent “to help protect the local citizens’ use of, and access to, federally administered lands and resources and to ensure the socioeconomic wellbeing, culture, and customs of a local community are adequately considered in federal decisions.”

Specifically, Johnson County “supports the production of all minerals in an environmentally responsible manner by providing infrastructure and services such as roads, bridges, medical services, and law enforcement.” (Johnson County Natural Resource Plan, Chapter 3, Section 3.3, Mining and Mineral Resources Page 47)

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<sup>30</sup> Attachment 17 -- Campbell County Natural Resource Management Plan dated September of 2022

<sup>31</sup> Attachment 18 -- Converse County Natural Resource Management Plan dated July 5, 2022

<sup>32</sup> Attachment 19 -- Johnson County Natural Resource Management Plan dated December 1, 2020

Further detailed in Resource Management Objective A: “The extraction of coal, oil, gas, bentonite, uranium, and other minerals within the County are continued in a sustainable and ecologically healthy way.” (Johnson County Natural Resource Plan, Chapter 3, Section 3.3, Mining and Mineral Resources, Page 48)

Under Wyoming statute, all Counties are deemed to have special expertise on all subject matters for which it has statutory responsibility including, but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture, and socio-economic viability of a County (Wyo. Statute 18-5-208(a)). Revisions to the BLM’s RMPA could directly impact the socio-economic viability of the Counties. In Johnson County alone, “the mining production in the county had an assessed valuation of \$181.7 million dollars in 2017. This valuation represented 45 percent of the total assessed valuation for the county. In 2016, the mining industry in the county supported 384 jobs earning \$14.5 million. This represented six percent of total employment and seven percent of total labor force.” (A Johnson County Profile: Socioeconomics, October 2018, Page 41)

FLPMA also requires that within the environmental consequences section of an FSEIS, the BLM should include a discussion of all “[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, Tribal, and local land use plans, policies and controls for the area concerned.” 40 C.F.R. § 1502.16(a)(5). Further, where any inconsistency exists, the BLM is required to provide a statement describing “the extent to which the agency would reconcile its proposed action with the plan or law.” 40 C.F.R. § 1506.2(d). An RMP may be inconsistent with local plans only where it is necessary to meet the purposes, policies, and programs associated with implementing FLPMA and regulations applicable to public lands. *Id.*; 43 C.F.R. § 1610.3-2(a). The RMP, regulations and programs all support coal leasing in the CDPA. BLM does not provide sufficient reasons as to why they are inconsistent with county policies under current BLM management.

BLM failed to provide a thorough consistency review with the Counties Natural Resource Management Plans and explain why they could not be as consistent with local plans as allowed by law. The decision by BLM to eliminate coal leasing in the CDPA was based solely on the Biden Administration’s policies, executive orders and directives -- continued coal leasing is consistent with current laws. If BLM chooses to eliminate coal leasing in the CDPA, they must follow the law to initiate a formal withdrawal as provided by FLPMA Section 204 with concurrence from Congress before an RMP amendment could take effect.

**XI. BLM Failed to Sufficiently Notify and Disclose to the Cooperating Agencies and the Affected Landowners of their True Intentions to Withdraw the CDPA from Coal Leasing**

The BLM failed to disclose to the Counties, as cooperating agencies, the true impacts of selecting the no leasing alternative. The federal agency allowed the cooperating agencies only 14-days from February 21 through March 5, 2024 to conduct a review of the administrative Final SEIS (AFSEIS). Notwithstanding that this was not a sufficient amount of time to thoroughly review a 600+ page document, BLM intentionally did not disclose to the cooperators that they intended to modify their position from supporting a dual preferred alternative (Alternative A – No Leasing and Alternative C – limited leasing) in the DSEIS to a No Leasing Alternative (Alternative A) as the

preferred alternative and therefore the final agency decision. See 43 C.F.R. § 1610.5-2. The federal agency remained silent on their decision until the FSEIS was issued and the 30-day clock for protesting was noticed.

As mentioned before, in Wyoming counties serve as a legal arm of the state entrusted with carrying out statutory and regulatory goals at the local level. Counties operate at the forefront to ensure our communities are economically vibrant, safe, and healthy places to live and work.

Communication, coordination, and collaboration with the BLM is vital, especially where significant BLM land and minerals exists, and management decisions can significantly impact the regulatory framework, customs, culture, and socioeconomics of our counties. See BLM Handbook H-1601-1 I.E. As partners, the Counties have worked diligently throughout this process to support the work of our federal land managers to overcome shared challenges and achieve mutual goals. Our Counties actively participated with BLM both at the field and state office levels and while we realize that the BLM is generically referred to throughout this protest, it must be clarified that this decision to eliminate coal leasing was most likely not made by the BLM Wyoming State Office but rather BLM Headquarters and thereby the Biden Administration. This enlarged scale is squarely to blame for process failures during the cooperating agency process.

BLM failed to adequately notify and disclose the true impacts of their decision to the public and industry by selecting the no leasing alternative. In accordance with 43 CFR 3420.1-4(e)(4)(i), and as noted in Appendix 7 under “Results of Consultation with Qualified Surface Owners:”

“...BLM mailed letters to 278 private landowners who own property larger than 40 acres in the decision area... The BLM sent the letters on October 5, 2022, requesting a response by November 7, 2022. The letters requested verification of landowner qualifications and an opinion on leasing federal coal beneath their surface (in favor of, against, or undecided). The letters also inquired whether the landowners had previously provided consent for surface mining<sup>33</sup>. Table A-4 lists the results; landowner response letters are included in the decision file. No areas were made unacceptable based on landowner response due to the inability to form a logical mining unit. Before potential leases are delineated, the BLM would again contact surface owners to solicit their preference for or against surface coal mining, in accordance with the BLM Coal Leasing Handbook.”

The BLM posted the federal register notice regarding the Notice of Intent on October 3, 2022 and issued “Surface Owner Consultation Coal Screen – Supplemental Environmental Impact Statement to the Approved Resource Management Plan for the Buffalo Field Offices” on October 5, 2024. The letter sent to the surface owners was a standard one-page survey that asked if they were a qualified surface owner, landowner preference for or against mining, along with any additional information that would be beneficial in determining the suitability or unsuitability for coal leasing. Nowhere in the letter did the BLM indicate its plans for analyzing for a no leasing and limited leasing alternative. Unless a surface owner was aware of this fact through other means or they

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<sup>33</sup> Attachment 20 -- BLM Buffalo Field Office FSEIS and Proposed RMPA, May of 2024, Appendix I – Sample Private Landowner Letter dated October 5, 2022.

attended the BLM public meetings on October 17 in Gillette, they would be unaware that BLM was in fact seriously considering a “no leasing” or “limited leasing” alternative.

Moreover, under Appendix H of the FSEIS Row #93, BLM responded to the Wyoming Mining Association comments regarding the impacts of the federal “no leasing” decision on adjacent non-federal coal mineral owners as stating “The BLM’s decision area is limited to federal lands and federal mineral estate managed by the BLM. The BLMs decisions do not affect the availability of nonfederal coal. However, realistically, with over 90 percent of the coal being federal coal, it is unlikely that much additional nonfederal coal would be mined without additional federal coal.” This would appear to constitute a taking of all state and private coal under lease within and adjacent to currently operating coal mines with federal coal leases.

In communication with affected surface owners and cooperating agencies, BLM was misleading, vague and provided insufficient information to notice the affected parties that BLM was in fact analyzing for, and had intentions of, issuing a decision for no future leasing of coal. It was only when the Counties received the FSEIS that we were informed regarding BLMs decision to choose Alternative A (No Leasing) as the preferred alternative.

In addition, the public and local residents were so enraged by the no coal leasing decision, the Campbell County Commissioners posted a petition on their website<sup>34</sup> urging the Bureau of Land Management (BLM) to reconsider its recent decision to ban new coal leasing on federal lands in Wyoming and Montana. The petition stated that:

“This decision is shortsighted and will have a devastating impact on American jobs and energy production. The coal industry employs thousands of workers across the country, and this ban will put many of these jobs at risk. Additionally, coal is a vital source of baseload electricity for millions of Americans. Without a reliable supply of coal, our nation’s energy grid could become unstable.

The BLM claims that this decision is necessary to reduce greenhouse gas emissions. However, we believe that there are other ways to achieve this goal without sacrificing American jobs and energy security. The United States has some of the cleanest coal-fired power plants in the world, and we are constantly developing new technologies to make coal production even cleaner.

We urge the BLM to reconsider this decision and work with stakeholders to develop a plan that balances environmental concerns with the need for affordable and reliable energy.”

As stated above, BLM failed to provide any analysis or to quantify the impacts that a no leasing of federal coal decision would have on adjacent or surrounding mineral leases. Furthermore, BLM failed in providing the cooperators with the actual proposed RMPA FSEIS language during the administrative review of the (AFSEIS) as has been typically available in other land use planning processes. BLM intentionally did not disclose to the cooperators that they intended to modify

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<sup>34</sup> Campbell County Commissioners Petition to Reconsider BLM Coal Leasing Ban dated May 28, 2024: <http://www.campbellcountywy.gov>

their position from supporting a dual preferred alternative (Alternative A – No Leasing and Alternative C – limited leasing) in the DSEIS to a No Leasing Alternative (Alternative A) as the preferred alternative in the FSEIS and therefore the final agency decision. *See* 43 C.F.R. § 1610.5-2. The federal agency remained silent on their decision until the FSEIS was issued and the 30-day clock for protesting was noticed.

## **XII. BLM Failed to Adequately Respond to Counties Comments**

Finally, BLM’s response to the Counties’ withdrawal comments were inadequate for three reasons. First, BLM did not respond directly to concerns that a detailed explanation was needed for removing the CDPA. That is in part because BLM merely copied and pasted its generic comment response on withdrawals without addressing the concerns that the Counties raised about the CDPA. Second, the BLM’s decision to actually adopt a no leasing alternative as its preferred alternative is inconsistent with longstanding policy and its prior statements which acknowledged that eliminating all federal coal leasing from the project area was inconsistent with its multiple use mandate under FLPMA. Third, BLM’s response described its authority under Section 204 of FLPMA in a novel manner that is plainly inconsistent with definitions in federal regulations. *See* 43 C.F.R. § 2300.0-5(h) (defining “withdrawal”).

### **Conclusion and Requested Remedies**

As discussed above, the Counties have serious concerns with the RMPA FSEIS regarding BLM’s violations of the National Environmental Policy Act (NEPA), the Federal Land Management and Policy Act (FLPMA), Federal Mineral Leasing Act (MLA) of 1920 as amended, the Mining and Mineral Policy of 1970, and the Fair Market Value Policy for Leasing Federal Coal of 1984.

Further, BLM has not adequately disclosed impacts related to a “no coal leasing” decision in violation of NEPA’s “hard look” mandate and FLPMA’s withdrawal requirements. The FSEIS does not apply the best available information when considering long-term impacts to non-thermal uses of coal and the preferred alternative to eliminate further leasing.

Moreover, BLM does not adequately address environmental and socioeconomic impacts related to a “no federal coal leasing” decision and the federal agency does not adequately explain the inconsistencies with local county natural resource plans. Finally, Environmental Justice impacts must include an in-depth analysis on where those funding streams will be recovered if mineral leasing and development is eliminated long-term and BLM must defer to state or local information or policies to address local impacts.

In order to correct the legal and technical errors of this document, BLM must:

- (1) Reanalyze the environmental and socioeconomic impacts associated with the following:
  - a. Take a hard look at the consequences of the BLM preferred alternative, specific to:
    - i. further advancements to non-thermal uses of coal,
    - ii. sufficient energy resources to meet energy grid demands if thermal coal leasing ceases,
    - iii. state and national environmental impacts on programs going forward with the loss of coal production and the associated fee collections,



- iv. bonus bids and AML fees and disbursements to state and national programs.
  - v. consider an in-depth analysis on where funding streams will be recovered if mineral leasing and development is eliminated long-term,
- (2) Consider following the formal withdrawal process outlined in statute and regulation;
- (3) Review the applicable County Natural Resource Management Plans and provide an adequate explanation for the inconsistencies of the cooperating agencies with county plans.

In conclusion, we encourage BLM to work with Wyoming Governor Gordon through the consistency review process, as required by law, to resolve these important issues in a more reasoned way.

Sincerely,



Del Shelstad, Chairman  
Campbell County



Jim Willox, Chairman  
Converse County



Bill Novotny, Chairman  
Johnson County

CC: The Honorable Governor Mark Gordon  
United States Senator John Barrasso  
United States Senator Cynthia Lummis  
United States Congresswoman Harriet Hageman  
Jerimiah Rieman, Wyoming County Commissioners Association  
Travis Deti, Wyoming Mining Association

Attachments Included

## Attachment Reference List

- Attachment #1** – Campbell County Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) Comments for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated August 3, 2023
- Attachment #2** – Johnson County Comments on Draft Environmental Statement for Coal Screening Comments dated August 3, 2023
- Attachment #3** – Converse County Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) Comments for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated August 3, 2023
- Attachment #4** – Campbell County Buffalo Coal Supplemental Draft Environmental Impact Statement (SEIS) and Resource Management Plan Amendment Comments dated August 14, 2019
- Attachment #5** – Campbell County Buffalo Coal Final Supplemental Environmental Impact Statement (SEIS) and Resource Management Plan Amendment Comments dated November 4, 2019
- Attachment #6** – Campbell County Buffalo Resource Management Plan (RMP) Supplemental Draft Environmental Impact Statement (EIS) Scoping Comments dated November 1, 2022
- Attachment #7** – Johnson County Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the 2015 Resource Management Plan Comments dated December 24, 2018
- Attachment #8** – Johnson County Buffalo Field Office Resource Management Plan Supplemental Environmental Impact Statement Comments dated November 2, 2022
- Attachment #9** – Campbell County Supplemental Information Submitted to BLM regarding the 2023 Buffalo Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated September 19, 2023
- Attachment #10** – Comments submitted by Wyoming Governor Mark Gordon, Buffalo RMP Amendment SEIS: DOI-BLM-WY-P070-2022-0115-RMP-EIS, dated August 3, 2023
- Attachment #11** – WDEQ Non-Discrimination and Inclusion Policy dated July 10, 2023
- Attachment #12** – Campbell County Socioeconomic Profile dated April of 2017
- Attachment #13** – Campbell County Valuation, Revenue, Mineral Production 1994-2023
- Attachment #14** – Johnson County Socioeconomic Profile dated 2018
- Attachment #15** – Converse County Coal Railroad Employment and Wages 2013-2023
- Attachment #16** – Converse County Historical Railroad Valuation since 1999
- Attachment #17** – Campbell County Natural Resource Management Plan dated September of 2022
- Attachment #18** – Converse County Natural Resource Management Plan dated July 5, 2022
- Attachment #19** – Johnson County Natural Resource Management Plan dated December 1, 2020
- Attachment #20** – Appendix I – Sample Private Landowner Letter
- Attachment #21** – Campbell County Petition to Reconsider BLM Coal Leasing Ban

**Attachment #1**

**Campbell County Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) Comments for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated August 3, 2023**

**OFFICE**

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Denton Knapp  
Executive Director of Administration

**BOARD OF COMMISSIONERS**

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August 3, 2023

Mr. Todd D. Yeager  
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RE: Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming  
(Federal Register/Vol.88, No. 88/Monday, May 8, 2023/Notices/Page 29691)

Dear Mr. Yeager:

On behalf of the Campbell County Board of Commissioners (County), we appreciate the opportunity to submit comments regarding the above referenced NOA. Campbell County's economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the County but within the State and across the country and our ability to continue with a viable federal coal leasing program is essential to our long-term socioeconomic health.

The County has been engaged in this planning process with the BLM for years and will remain committed to continuing to work as a cooperating agency to finally resolve these issues. We have consistently provided input regarding adjustments to the Coal Development Potential Area (CDPA), the effects of global climate change and greenhouse gas emissions, along with environmental consequences of downstream combustion all of which have a direct and indirect impact to our County's economic health. While Campbell County supports the continued use and conservation of lands, federal agencies must respect the custom, culture and socioeconomics of local communities and acknowledge those local values through the approval and implementation of their rules, regulations and policies.

According to BLM, federal coal produced from the Powder River Basin in Wyoming and Montana accounts for over 85 percent of all federal coal production. Moreover, the BLM Buffalo Field Office administers

approximately 4.7-million acres of subsurface federal mineral estate in Campbell, Johnson, and Sheridan Counties in north-central Wyoming of which the federal coal estate is significant. Therefore, it is safe to say that Wyoming effectively dominates BLM's federal coal leasing program and Campbell County is the largest producer within that space.

Campbell County is unique as our lands are comprised of approximately 83% *private surface* and an estimated 87.5% *federal minerals*. We are also an energy rich area with an estimated forty percent (40%) of the nation's BTU's being produced from the surface coal mines located in the area. Coal production is not only critical to our county, state and school systems but also for the nation in meeting energy demands. Furthermore, Wyoming remains a national leader in coal technology development and research and in May of 2018, the Integrated Test Center (ITC) officially opened in Gillette, Wyoming. The center provides space for researchers to test Carbon Capture, Utilization and Sequestration (CCUS) technologies using actual coal-based flue gas. Research at the facility will help support jobs, local and state economies and keep electricity prices low for millions of people around the country. Other innovative projects are being pursued in Wyoming that include CCUS, carbon fiber, coal-to-products and extracting Critical Minerals (CM) and Rare Earth Elements (REE) from coal. We remain confident that diversification and advanced technology will provide longevity for the coal industry for years to come.

Wyoming embraces an all-of-the-above energy strategy. We are an energy state that exports approximately ninety-three percent (93%) of the energy we produce. We recognize the need and value in having a diverse energy production portfolio; however, continued coal produced from Wyoming mines is essential to meet not only baseload electric generation needs in this country but to explore non-thermal uses of coal for the future.

Campbell County submits the following detailed comments for BLM's consideration specific to the SEIS and the future of federal coal leasing:

- State of Wyoming – Campbell County endorses comments submitted by the State of Wyoming and incorporates them by reference.
- Federal Coal Leasing Alternatives – As you are aware, in 2019 and in compliance with the United States District Court for the District of Montana court order (Western Organization of Resource Councils et al. v. BLM), the BLM amended the Buffalo RMP. Campbell County participated in that plan amendment process and still believes that BLM sufficiently complied with the court order and therefore, adequately addressed the courts concerns. However, in August of 2022 the Court invalidated the Buffalo RMP based upon an inadequate environmental analysis violating NEPA and is once again requiring additional analysis to be completed. The court order specifically requires: "1) The BLM must complete new coal screening and NEPA analysis that considers a no leasing and limited coal leasing alternatives, 2) The BLM must disclose the public health impacts, both climate and non-climate of burning fossil fuels (coal, and oil and gas) from the planning area." While Campbell County believes the BLM has satisfied the court order in the development of its alternatives in this SEIS, the court did not mandate a particular outcome only that additional analysis be completed. Therefore, the County strongly opposes BLMs identified preferred alternatives A (no leasing) and C (limited leasing). We believe that Alternative B (No Action) is still the appropriate management decision.

It is evident that the Biden Administration has unleashed a barrage of anti-fossil fuel directives, with a goal to create a no coal leasing policy. These directives lack supporting evidence showing the benefit of limiting or eliminating vital energy resources from coal. On several fronts, the Administration is working to suffocate the fossil fuel industry and any future it may have by issuing policies and regulations that stifle coal, oil and gas leasing and production. Examples of recent rules, policies and NEPA documents include, but are not limited to, the following:

1. Reducing or eliminating federal coal leasing through this Buffalo SEIS and the identification of the two preferred alternatives A (No Action) and C (Limited Leasing);
2. The NOI to prepare an EIS regarding Maintaining Secretary Jewell's Coal Leasing Moratorium;
3. BLM Conservation and Landscape Health Proposed Rule, which would create another layer of leasing for conservation areas that will compete directly with fossil fuel and mineral leasing;
4. The EPA Proposed Rule on New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units;
5. BLM Proposed Rule on Fluid Mineral Leases and the Leasing Process; and
6. Numerous Climate Change Executive Orders that are targeted at limiting or eliminating fossil fuel leasing and development now and in the future.

While this is not an exhaustive list, it does support the premise that the Biden Administration is actively and aggressively moving toward elimination of fossil fuel use. These misguided directives will not support increased needs in energy consumption when fossil fuels still support a significant percentage of the nation's electricity nor do they allow for advanced technologies to move forward if the feedstock is eliminated from access.

Furthermore, the Biden Administration has identified Wyoming as a "Priority Energy Community" by the U.S. Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. Through the Infrastructure and Investment Jobs Act (IIJA) and the Inflation Reduction Act (IRA) the Administration has appropriated DOE at unprecedented funding levels to promote the timely evolution of advanced technologies for coal (i.e. carbon management projects, REE/CM extraction from coal, etc.) to reduce carbon emissions. These demonstration projects are currently underway, and they need a chance to ascertain whether or not commercialization is possible. It would be premature to make a determination of no leasing or limited leasing until these projects reveal a clear path forward.

- Regarding the BLM SEIS and Plan Amendment, Campbell County questions the agencies path to amend the RMP without considering in further detail the removal of the Coal Development Potential Area (CDPA) as part of a formal withdrawal under FLMPA, which requires congressional approval and not just a Plan Amendment to the Buffalo RMP. We contend that the proposed revised coal screening process and analysis within the SEIS did not follow the appropriate process for modification. On page ES 6 within the draft SEIS, BLM states "...The CDPA is the decision area which includes approximately 481,000 acres of subsurface federal mineral coal estate. Under Screen 3, 48.12 billion short tons of coal were removed from consideration from leasing in order to reduce greenhouse gas (GHG) emissions as a proxy for climate change in response to the court order..."

The SEIS proposed process fails to take into account the requirements as set forth in the Federal Mineral Leasing Act of 1920 (FMLA) as amended, the Federal Land Management Policy Act of 1976 (FLPMA) as amended, the Mining and Mineral Policy of 1970, and the Fair Market Value Policy for Leasing Federal Coal of 1984. Certainly, this withdrawal of lands currently identified as the CDPA far exceeds the acreage limitations as outlined in FLPMA. If BLM moves forward with identifying either Alternative A or C as the preferred alternative in the Record of Decision, the SEIS fails to analyze that the removal of the CDPA boundary, coal acreage, and surface acreage should be required to go through a formal mineral withdrawal process including congressional approval so as not to set aside a "defacto" mineral withdrawal area which circumvents the process.

Finally, BLM is scheduled to initiate a Resource Management Plan Revision in 2035 and this timeframe would be more appropriate to look at land allocations and leasing. The market should be at a place where we can better determine actual coal needs for both thermal and non-thermal uses. Until then, the Coal Development Potential Area should remain intact, and coal should be made available for lease. Therefore, Campbell County contends that the only responsible and practical option is to support Alternative B (No Action).

- Thermal Coal Use -- The coal produced in Wyoming is available to power the nation's baseload thermal energy production for decades to come. Even under the most aggressive energy transition predictions, the need for thermal coal baseload power will continue well beyond the 2040 timeframe. Statistics show that the US and the world are going to require more energy in the future and without a broad-based strategy for energy sources, the demand may very well outpace the supply. The need for the nation's security and a strong economy will demand that electricity remain reliable and affordable, requiring the use of coal-fired power.

Campbell County understands that the market is demanding reliable, affordable energy along with emission reductions. We embrace technologies like Carbon Capture, Utilization and Storage (CCUS). Some of Wyoming, and the nation's coal-fired power plants are ideal for CO<sub>2</sub> capture. However, CO<sub>2</sub> is one of the hundreds of factors that influence climate change and to believe the climate can be influenced on the margins by one of these factors is misguided.

To demonstrate Wyoming's leadership in this arena, the University of Wyoming (UW) School of Energy Resources (SER) website describes that researchers at the UW are currently funded by the U.S. Department of Energy (DOE) to advance a potential large-scale integrated CO<sub>2</sub> storage project near Gillette, Wyoming, known as the Wyoming CarbonSAFE project. The Wyoming CarbonSAFE Project, which stands for *Carbon Storage Assurance Facility Enterprise*, is one of thirteen original carbon capture, utilization, and storage (CCUS) project sites in the U.S. with the ultimate goal of ensuring carbon storage complexes will be ready for integrated CCUS system deployment.

In addition, the ITC provides space for researchers to test carbon capture, utilization and storage technologies using actual coal-based flue gas from a coal-fired power plant and is also located in Gillette. Campbell County in partnership with Wyoming remains committed to continue to find ways to move towards a net zero or a net neutral emissions goal.

If coal leasing is discontinued and specifically for thermal energy purposes, BLM must analyze where sufficient energy resources will come from to meet energy grid demands in the United States. Coal

continues to be an abundant, affordable and reliable energy source and without future leasing and thermal coal production our domestic energy security would be at risk. It is irresponsible to limit or eliminate leasing of coal until we better understand the needs for coal in both thermal and non-thermal uses now and in the future.

- Coal Export Opportunities – According to the Prager University Foundation website, oil, gas and coal produce approximately eighty-four percent (84%) of the world’s energy needs. Furthermore, China and India are the world’s largest coal consumers as per the World Meter website. Instead of looking for ways to reduce or eliminate coal leasing and production, the federal government, and in particular the Biden Administration, must support and promote all opportunities to export our coal products overseas to meet these global demands for energy.

It is also important to note that the Department of Energy researchers at the National Energy Technology Laboratory assessed various types of coal in the United States. Subbituminous Powder River Basin coal, largely produced in Wyoming, is among the lowest in terms of global warming impacts and provides other environmental benefits over countries that do not have that grade of coal.

The United States must pursue all options for marketing our energy products overseas should the market show a demand and the federal government must work with all impacted states to secure production, transportation and infrastructure opportunities domestically. This would in turn provide long-term socioeconomic benefits to not only Wyoming but the country. We must look for opportunities to promote and allow the exportation of coal to where there is a substantial need for energy. This measure alone would assist in the reduction of Green House Gas (GHG) emissions internationally, provide good paying jobs and support vibrant communities.

- Non-thermal Coal Uses – BLM should also consider in greater detail advancements in coal development, technology improvements, and new products derived from coal, which include but are not limited to, CCUS, carbon capture and storage (CCS), carbon fiber, coal-to-products and extracting Critical Minerals (CM) and Rare Earth Elements (REE) from coal. This will strengthen the need for coal products in the future and enforce the need to continue with a coal leasing program long-term.

New technology is being discovered every day and while many innovative ideas are either in the Research and Development or demonstration phases, some are advancing to commercialization faster than we realize. Products under development include, but are not limited to, components for asphalt for roads and roofing materials, building materials (bricks, foam, drywall, pavers, aggregate for roads and other products), graphene oxide, soil amendments that can be used in reclamation, and polymer products (decking material) and carbon membranes for water purification. Graphite, a major component of batteries of electric vehicles, is also being studied as a by-product of coal. Without the future leasing of coal in sufficient quantities, these potential advances for the use of coal will never come to fruition. This would be a significant loss not only for the coal industry but the greater public as well.

- Air Quality and Climate Change –
  1. Chapter 3, Affected Environment 3.5.2, Page 3-74 - Social Cost of Carbon – BLM states that “The social cost of carbon, social cost of N2O, and social cost of methane—together, the social



cost of greenhouse gases (SC-GHG)—are estimates of the monetized damages associated with incremental increases in GHG emissions in a given year. It includes the estimated value of all climate change impacts, including but not limited to public health effects, changes in net agricultural productivity, property damage from increased flood risk, natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services (Interagency Working Group on the Social Cost of Greenhouse Gases [IWG] 2021)..."

The use of the Biden Administrations' Interagency Working Group on the Social Cost of Greenhouse Gases' (IWG) latest estimates regarding the "Social Cost of Carbon" in this analysis illustrates yet another example of the federal government solely considering information which leads to its predetermined desired outcome. Its use in the context of this RMP amendment is premature, beyond the scope of the SEIS and lacks legal and scientific support. For example, the cost per ton of CO2 has ranged in recent years from \$1 to \$340. The estimates are politically driven and not based on any sort of scientific certainty. This arbitrary figure is difficult to rectify when compared to the very real budgets of Wyoming's miners, families struggling to pay their energy bills across the country, and state services dependent on mineral royalties.

Campbell County does not support the use of metrics such as the SCC to be applied to the production of coal. The SCC assumes that all fossil fuels will be combusted with no carbon mitigation nor with the utilization of CCUS/CCS. In most all instances, greenhouse gas emissions will be mitigated and that should be taken into account.

2. Chapter 3, Affected Environment, Pages 8-9 -- BLM notes several recent EPA proposed actions in this section. EPA has proposed at least two other relevant actions recently and should be considered in this document:

- On May 23, 2023, EPA proposed five separate actions under section 111 of the Clean Air Act addressing greenhouse gas emissions from new, modified, reconstructed, and existing fossil fuel-fired electric generating units (88 Fed. Reg. 33240). This proposal focuses on reducing greenhouse gas emissions from fossil fuel-fired EGUs.
- On April 24, 2023, EPA proposed amendments to the National Emission Standards for Hazardous Air Pollutants for Coal and Oil-fired Electric Utility Steam Generating Units (EGUS) (88 Fed. Reg. 24854). Those standards are commonly known as the Mercury and Air Toxics Standards (MATS).

- Environmental Justice –

1. Chapter 3, Affected Environment 3.4.5, Page 3-108 and Appendix E (Environmental Justice Support Document) – The County challenges BLMs premise for determining block census tracks identified in Campbell County under both the Affected Environment and Appendix E (Environmental Justice Support Document) as meeting the criteria for Environmental Justice communities of concern. BLM uses the metrics to determine this designation by looking at total population, minority percentage per geographic area, Native American populations per geographic area, and low-income population per geographic areas. It is therefore determined that several block census tracks meet the criteria for Environmental Justice areas due to coal

leasing and production throughout the County. We would argue the opposite affect is true for the County and its citizens for leasing and production of coal.

In its SEIS, BLM defines "environmental justice" as "the fair treatment and meaningful involvement of all potentially affected people—regardless of race, color, national origin, or income." (BLM IM2022-059) (adopting EPA's definition). Pursuant to this definition, "fair treatment" means that "no group should bear a disproportionate share of the adverse consequences that could result from federal environmental programs or policies." (Id.). On the other hand, "meaningful involvement" involves "allowing all portions of the population a meaningful opportunity to participate in the development of, compliance with, and enforcement of Federal laws, regulations, and policies affecting human health or the environment regardless of race, color, national origin, or income." (Environmental Justice Guidance Under the National Environmental Policy Act 23 (Appendix A) <https://www.doi.gov/sites/doi.gov/files/uploads/EJ-under-NEPA.pdf>). This definition requires BLM to consider 1) whether groups and communities affected by BLM decision-making will bear a disproportionate share of the adverse consequences resulting from BLM programs and policies; and 2) whether those communities have been meaningfully involved in the decision-making process.

Wyoming communities will be disproportionately harmed by a BLM decision that limits or eliminates coal leasing in the Powder River Basin. Wyoming's Powder River Basin (PRB) is home to some of the world's largest surface coal mines, with many rural communities in Northeast Wyoming highly dependent on the coal industry for jobs, tax revenue, and social safety nets. Since its founding as a railroad town in 1891, Campbell County, Wyoming has continued to evolve as a rural hub for industry, emerging as a state and even national leader in coal and oil and gas production. With a total county population of only ~47,000 working together to supply about 40% of the nation's coal for electrical generation, Campbell County and Gillette have proudly earned their reputation as the "epicenter of American coal."

As energy markets have shifted away from coal, in part due to federal policy and market trends, coal communities in Wyoming are increasingly vulnerable to socioeconomic harm. All of Northeast Wyoming is designated a "Priority Energy Community" by the U.S. Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. This designation signals a high dependence on coal jobs and the potential for severe economic harm should coal decline.

Wyoming is already feeling the effects of federal policies and market trends that disfavor coal. Analysis by the University of Wyoming shows that since peaking in 2008 (at approximately 467 million tons), Wyoming coal production has declined drastically, nearly halving in 2019 to 277 million tons. Employment has followed this trend. Employment in coal mines peaked in 2009 with 7,054 employees. In 2019, 5,399 employees worked in coal mines in the state, a 23.5 percent decrease from the 2009 employment level.

Not only does coal support the economic vitality of Wyoming communities, but it also provides much-needed community support. Historically, mining companies in the Powder River Basin have partnered with and provided the majority of support for community service programs,

including programs associated with substance abuse recovery and mental health. Although Campbell County is not currently designated a “disadvantaged community” pursuant to BLM screening metrics for income and race, policies that limit the region’s use of its abundant remaining coal reserves would result in severe socioeconomic harm to the region, potentially rendering Campbell County a “disadvantaged community” in the near future. This is partly the reason we disagree with the BLM determination that there are several census tract blocks that identify parts of Campbell County as meeting the eligibility for Environmental Justice with coal production. We contend that without coal leasing and production, we would see much more detrimental impacts on our County and its citizens; therefore, the inverse to your determination is true.

Given the strong support for coal that exists in these communities, local and state leaders are optimistic about the potential for carbon capture, utilization, and storage (CCUS) technologies to aid in the decarbonization of the U.S. coal industry, with demands for coal from the Powder River Basin expected to persist for many years. In fact, community leaders in Campbell County envision that CCS/CCUS will be a leading regional industry in the near future. As noted above, the University of Wyoming School of Energy Resources is also exploring new applications for the region’s abundant coal resources to carry the economy into the future. Alternative applications for Wyoming’s abundant remaining coal reserves, including the production of coal-based construction products and materials including CM and REE. By limiting the availability of coal for these applications, BLM could undermine the proactive efforts of potentially soon-to-be hard-hit communities to diversify and bolster their economies by finding low-carbon applications for the resources available to them.

Input from Wyoming communities should be meaningfully integrated in the decision-making process. The coal mining, oil, and gas sectors enjoy strong, vocal public support in Campbell County and Wyoming in part due to the high-paying jobs and significant tax revenue associated with energy development. Additional information regarding socioeconomic impacts is further discussed below.

- Consistency with Campbell County Natural Resource Plan (CCNRP) -- Campbell County encourages both state and federal agencies to be as consistent as allowed by law with the Campbell County Natural Resource Land Use Plan adopted in September of 2022. The County Plan specifically recognizes that the private sector is the best engine for economic growth; regulatory policies should respect the role of state and local governments; and state and federal land policies and regulations should be effective, consistent, sensible, and understandable. In adopting this land use plan, the Board of Campbell County Commissioners intends to take the following actions as noted on page 2-3 of the County Plan:
  - a. Protect the integrity of environmental systems and natural resources.
  - b. Preserve and promote resource-based industries.
  - c. Promote a robust, diverse, and stable economy.
  - d. Minimize conflicts between land uses.
  - e. Protect public health, safety and welfare.
  - f. Preserve culture, customs, heritage, and economic diversity.

- g. Recognize and protect private rights and interests in state and federal land resources, including rights-of-way, public access, grazing leases and permits, water rights, special use leases and permits, mineral leases, contracts, and recreational use permits and licenses.

Furthermore, NEPA establishes a national policy and goals for the protection, maintenance, and enhancement of the environment. Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. NEPA established a Council on Environmental Quality (42 US Code [USC] 4321 [1970]), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations [CFR] 1500-1508 [1970]). In these regulations is the requirement that federal agencies to consider and use local planning documents during their decision making and planning efforts (40 CFR 1506.2 [1978] and 43 CFR 1610.3-2(a) [1983]).

Furthermore, the Federal Land Policy and Management Act (FLPMA) provides a framework for managing public lands that requires a systematic, interdisciplinary approach and requires coordination in land-use planning with other state and federal agencies. Under FLPMA (43 USC 1712 [1976]), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands.

1. Chapter 1, Purpose and Need 1.6, Page 1-13 "Relationship to state and Local Plans" -- "...The no-leasing and limited-leasing alternatives are not consistent with the 2022 Campbell County Natural Resource Land Use Plan, which states the county's policy as... federally managed lands shall remain open and available for mineral resource exploration, development and production, unless administrative withdrawal or other action is necessary to protect the national security and withdrawal procedures are fully followed..."

While we appreciate BLMs acknowledgement of the consistency and inconsistency with the County Plan, we disagree with the preferred alternative choices. We believe that BLM is making a political decision to support Alternative A and C versus Alternative B, which will impact our ability to meet the energy demands of this country and stifle future uses of non-thermal coal both now and in the future.

- Socioeconomic Impacts, Appendix D – As stated multiple times, coal production is an important component of the State and County's economic base and also has a direct impact on schools, colleges, highways and the overall socioeconomics of the community. The coal industry generates high paying jobs to hundreds of people throughout the region. To further illustrate its importance, the assessed valuation for coal in Campbell County for the current Fiscal Year 2022 is approximately \$1.9 billion while the most recent production accounted for \$231 million tons in 2022. To further illustrate the importance of fossil fuel development in the County, the assessed valuation for coal/oil/gas for the current Fiscal Year 2022 is over \$4.1 billion.

On a statewide level, the most up-to-date information obtain from the Wyoming Mining Association highlights the following for coal production in all of Wyoming: In 2022, it is estimated that state and

local revenue from Wyoming Coal is approximately \$562.7 million (an increase of \$82.8 million or 17.3 percent from 2021). Additional benefits from coal leasing and production include:

1. Ad Valorem (Property) - \$13,717,859
2. AML Distributions - \$25,900,397
3. State Rents and Royalties - \$25,053,038
4. Sales and Use Taxes - \$19,541,264
5. Ad Valorem (Production) - \$141,513,372
6. Severance Tax - \$153,070,627
7. Federal Mineral Royalties (State Share) - \$183,942,784 (Federal Share - \$229,718,453)

Funding derived from mineral development constitutes a significant portion of revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Campbell County, but all counties, the State of Wyoming and its residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. Without that tax revenue derived from this industry, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety and security.

BLM must include and expand its analysis in Appendix D of the effects funding and revenue decreases would have on local services and programs should the no leasing or limited leasing alternative be adopted. Moreover, the BLM should include an in-depth analysis on where those funding streams will be recovered if mineral leasing and development is significantly reduced or eliminated long-term.

In conclusion, Campbell County is committed to ensuring that we are part of the energy solution both domestically and abroad. Limited or no leasing of our fossil fuels is not the answer - advanced technology and innovation should be our focus. For all the reasons outlined above and more, we believe the only reasonable and responsible path forward is to support Alternative B (No Action), which maintains stringent government regulatory oversight while allowing demand and use to drive necessary exploration advanced technologies for coal in the future, utilize and enhance CCUS methods and maintain a reliable, affordable and abundant energy source for grid stability in this country.

We continue to appreciate the coordination and the relationship with the local BLM Buffalo Field Office. Should you have questions or require additional information, do not hesitate to contact me at 307-682-7283 [colleen.faber@campbellcountywy.gov](mailto:colleen.faber@campbellcountywy.gov) or our natural resource policy advisor Dru Palmer at 307-388-2709 ([dru@wyoming.com](mailto:dru@wyoming.com)).

Sincerely,



Colleen D. Faber  
Chairman

CC: The Honorable Governor Mark Gordon  
United States Senator John Barrasso  
United States Senator Cynthia Lummis  
United States Congresswoman Harriet Hageman  
Jerimiah Rieman, Wyoming County Commissioners Association  
Travis Deti, Wyoming Mining Association  
Rusty Bell, Office of Economic Transformation

**Attachment #2**  
**Johnson County Comments on Draft Environmental Statement**  
**for Coal Screening Comments dated August 3, 2023**

# JOHNSON COUNTY COMMISSIONERS



William J. Novotny, III

Robert Perry  
August 3, 2023

Jeff Shelley

Buffalo Field Office  
Bureau of Land Management  
1425 Fort Street  
Buffalo, WY 82834

Re: Johnson County Comments on Draft Environmental Statement for Coal Screening

Dear Buffalo Field Office:

Johnson County is pleased to exercise its cooperating agency status and appreciates the opportunity to provide comments to the Draft Environmental Impact Statement (DEIS) for coal screening in the Powder River Basin.

As previously stated, on December 1, 2020, Johnson County formally adopted its Natural Resource Management Plan (Johnson County NRMP). Utilizing Johnson County's Cooperating Agency status and the consistency review process, Johnson County provides the following comments for the DEIS.

Consistent with provisions in the Johnson County NRMP, if the federal agency receives a local plan while writing an EIS or Environmental Assessment, the National Environmental Policy Act commands the federal agency to "discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the [environmental impact] statement should describe the extent to which the [federal] agency would reconcile its proposed action with the [local government] plan or law." (40 C.F.R. §§ 1506.2, 1506.2(d))

The DEIS conflicts with the Johnson County NRMP's clearly stated intent "to help protect the local citizens' use of, and access to, federally administered lands and resources and to ensure the socioeconomic wellbeing, culture, and customs of a local community are adequately considered in federal decisions" (Johnson County Natural Resource Plan, Page 41). Johnson County "supports the production of all minerals in an environmentally responsible manner by providing infrastructure and services such as roads, bridges, medical services, and law enforcement" (Johnson County Natural Resource Plan, Chapter 3, Section 3.3, Mining and Mineral Resources Page 47).

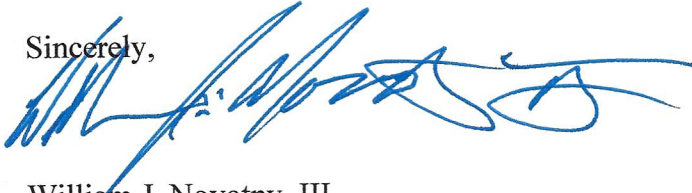
Johnson County has special expertise on all subject matters for which it has statutory responsibility including, but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture, and socio-economic viability of a County (Wyo. Statute 18-5-208(a)). Revisions to the BLM's RMP could directly impact the socio-economic viability of Johnson County. "The mining production in the county had an assessed valuation of \$181.7 million dollars in 2017. This valuation represented 45 percent of the total assessed valuation for the county. In 2016, the mining industry in the county supported 384 jobs earning \$14.5 million.



This represented six percent of total employment and seven percent of total labor force” (A Johnson County Profile: Socioeconomics, October 2018, Page 41).

Johnson County supports no action alternative and asks that the current acreage available for coal leasing remain.

Sincerely,

A handwritten signature in blue ink, appearing to read 'William J. Novotny, III', with a stylized flourish at the end.

William J. Novotny, III  
Chairman

**Attachment #3**

**Converse County Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) Comments for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming dated August 3, 2023**

***Board of Commissioners  
Converse County, Wyoming***

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***107 No. 5th St., Suite 114 • Douglas, WY 82633-2448 • 307-358-2244 • Fax 307-358-5998***

***Jim Willox, Chair • Rick Grant, Vice-Chair • Robert G. Short • Mike Colling • Trent Kaufman***

August 3, 2023

Mr. Todd D. Yeager  
Buffalo Field Manager, Buffalo Field Office  
Bureau of Land Management  
1425 Fort Street  
Buffalo, Wyoming 82834-2463

Email: [tyeager@blm.gov](mailto:tyeager@blm.gov)  
[tbills@blm.gov](mailto:tbills@blm.gov)

**RE: Notice of Availability of the Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming (Federal Register/Vol.88, No. 88/Monday, May 8, 2023/Notices/Page 29691)**

Dear Mr. Yeager:

On behalf of the Converse County Board of Commissioners (County), we appreciate the opportunity to submit comments regarding the above referenced NOA. Converse County's economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the County but within the State and across the country. In addition, our ability to continue with a viable federal coal, oil and gas leasing program is essential to our long-term socioeconomic health. While Converse County supports the continued multiple use of federal lands, federal agencies must respect the custom, culture and socioeconomics of local communities and acknowledge those local values through the approval and implementation of their rules, regulations and policies.

Converse County is rich in federal resources as our lands are comprised of approximately 76% *private surface* and an estimated 60% *federal minerals*. The Antelope Mine is partially located in Converse County and is the major coal mine that accounts for our coal production. Up until 2021, coal has been one of the largest and most stable sources for Converse County revenues for the past twenty years. Today, the influence of coal is through good paying jobs, both on the mine site, and secondarily with services and transportation of employees. We are, however, an energy rich

area with a significant percentage of oil and natural gas located in the area. Mineral production is not only critical to our county, state and school systems but also for the entire nation in meeting energy demands.

Wyoming embraces an all-of-the-above energy strategy. We are an energy state that exports approximately ninety-three percent (93%) of the energy we produce. We recognize the need and value in having a diverse energy production portfolio; however, continued coal produced from Wyoming mines is essential to meet not only baseload electric generation needs in this country but to explore non-thermal uses of coal for the future.

Converse County submits the following detailed comments for Bureau of Land Management's (BLMs) consideration specific to the SEIS and the future of federal coal leasing:

- State of Wyoming – Converse County endorses comments submitted by the State of Wyoming and incorporates them by reference.
- Federal Coal Leasing Alternatives – As you are aware, in August of 2022 the United States District Court for the District of Montana Court invalidated the Buffalo RMP based upon an inadequate environmental analysis violating NEPA and is once again requiring additional analysis to be completed. The court order specifically requires: “1) The BLM must complete new coal screening and NEPA analysis that considers a no leasing and limited coal leasing alternatives; and 2) The BLM must disclose the public health impacts, both climate and non-climate of burning fossil fuels (coal, and oil and gas) from the planning area.” While Converse County believes the BLM has satisfied the court order in the development of its alternatives in this SEIS, the court did not mandate a particular outcome only that additional analysis be completed. Therefore, the County strongly opposes BLMs identified preferred alternatives A (no leasing) and C (limited leasing). We believe that Alternative B (No Action) is still the appropriate management decision.

It is evident that the Biden Administration has unleashed a barrage of anti-fossil fuel directives, which appears to support a “no coal leasing” policy. On several fronts, the Administration is working to suffocate the fossil fuel industry and any future it may have by issuing policies and regulations that stifle coal and oil and gas leasing and production. Examples of recent rules, policies and NEPA documents include, but are not limited to, the following:

1. Reducing or eliminating federal coal leasing through this Buffalo SEIS and the identification of the two preferred alternatives A (No Action) and C (Limited Leasing);

2. The NOI to prepare an EIS regarding Maintaining Secretary Jewell's Coal Leasing Moratorium;
3. BLM Conservation and Landscape Health Proposed Rule, which would create another layer of leasing for conservation areas that will compete directly with fossil fuel and mineral leasing;
4. The EPA Proposed Rule on New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units;
5. BLM Proposed Rule on Fluid Mineral Leases and the Leasing Process; and
6. Numerous Climate Change Executive Orders that are targeted at limiting or eliminating fossil fuel leasing and development now and in the future.

While this is not an exhaustive list, it does support the premise that the Biden Administration is actively and aggressively moving toward elimination of fossil fuel use. These misguided directives will not support increased needs in energy consumption when fossil fuels still support a significant percentage of the nation's electricity nor do they allow for advanced technologies to move forward if the feedstock is eliminated from access.

Furthermore, the Biden Administration has identified Wyoming as a "Priority Energy Community" by the U.S. Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. Through the Infrastructure and Investment Jobs Act (IIJA) and the Inflation Reduction Act (IRA) the Administration has appropriated DOE at unprecedented funding levels to promote the timely evolution of advanced technologies for coal (i.e. carbon management projects, REE/CM extraction from coal, etc.) to reduce carbon emissions. These demonstration projects are currently underway and they need a chance to ascertain whether or not commercialization is possible. It would be premature to make a determination of no leasing or limited leasing until these projects reveal a clear path forward.

Regarding the BLM SEIS and Plan Amendment, Converse County questions the agencies path to amend the RMP without considering in further detail the removal of the Coal Development Potential Area (CDPA) as part of a formal withdrawal under FLMPA, which requires congressional approval and not just a Plan Amendment to the Buffalo RMP. We contend that the proposed revised coal screening process and analysis within the SEIS did not follow the appropriate process for modification. On page ES 6 within the draft SEIS, BLM states "...The CDPA is the decision area which includes approximately 481,000 acres of subsurface federal mineral coal estate. Under Screen 3, 48.12 billion short tons of coal were removed from consideration from leasing in order to reduce greenhouse gas (GHG) emissions as a proxy for climate change in response to the court order..."

The SEIS proposed process fails to consider the requirements as set forth in the Federal Mineral Leasing Act of 1920 (FMLA) as amended, the Federal Land Management Policy Act of 1976 (FLPMA) as amended, the Mining and Mineral Policy of 1970, and the Fair Market Value Policy for Leasing Federal Coal of 1984. Certainly, this withdrawal of lands currently identified as the CDPA far exceeds the acreage limitations as outlined in FLPMA. If BLM moves forward with identifying either Alternative A or C as the preferred alternative in the Record of Decision, the SEIS fails to analyze that the removal of the CDPA boundary, coal acreage, and surface acreage should be required to go through a formal mineral withdrawal process including congressional approval so as not to set aside a “defacto” mineral withdrawal area which circumvents the process.

Finally, BLM is scheduled to initiate a Resource Management Plan Revision in 2035 and this timeframe would be more appropriate to look at land allocations and leasing. The market should be at a place where we can better determine actual coal needs for both thermal and non-thermal uses. Until then, the CDPA should remain intact and coal should be made available for lease. Therefore, Converse County contends that the only responsible and practical option is to support Alternative B (No Action).

- Thermal Coal Use -- The coal produced in Wyoming is available to power the nation’s baseload thermal energy production for decades to come. Even under the most aggressive energy transition predictions, the need for thermal coal baseload power will continue well beyond the 2040 timeframe. Statistics show that the US and the world are going to require more energy in the future and without a broad-based strategy for energy sources, the demand may very well outpace the supply. The need for the nation’s security and a strong economy will demand that electricity remain reliable and affordable, requiring the use of coal-fired power.

Converse County understands that the market is demanding reliable, affordable energy along with emission reductions. We are home to the Dave Johnson Coal-Fired Power Plant that is scheduled be decommissioned in the near future. We embrace technologies like Carbon Capture, Utilization and Storage (CCUS). Some of Wyoming, and the nation’s coal-fired power plants are ideal for CO<sub>2</sub> capture. We contend that burning coal is not the issue, but rather the release of CO<sub>2</sub> is the issue. If the true goal is to reduce or eliminate CO<sub>2</sub> emissions into the atmosphere, then CO<sub>2</sub> should be the focus. The reduction of CO<sub>2</sub> can be achieved and coal can continue to provide reliable, low-cost energy through the deployment of CCUS.

If coal leasing is discontinued and specifically for thermal energy purposes, BLM must analyze where sufficient energy resources will come from to meet energy grid demands in the United States. Coal continues to be an abundant, affordable and reliable energy source. Without future leasing and thermal coal production our domestic energy security

would be at risk. It is irresponsible to limit or eliminate leasing of coal until we better understand the needs for coal in both thermal and non-thermal uses now and in the future.

- Coal Export Opportunities – According to the Prager University Foundation website, oil, gas and coal, produce approximately eighty-four percent (84%) of the world’s energy needs. Furthermore, China and India are the world’s largest coal consumers as per the World Meter website. Instead of looking for ways to reduce or eliminate coal leasing and production, the federal government, and in particular the Biden Administration, must support and promote all opportunities to export our coal products overseas to meet these global demands for energy.

It is also important to note that the Department of Energy researchers at the National Energy Technology Laboratory assessed various types of coal in the United States. Subbituminous Powder River Basin coal, largely produced in Wyoming, is among the lowest in terms of global warming impacts and provides other environmental benefits over countries that do not have that grade of coal.

The United States must pursue all options for marketing our energy products overseas should the market show a demand, and the federal government must work with all impacted states to secure production, transportation and infrastructure opportunities domestically. This would in turn provide long-term socioeconomic benefits to not only Wyoming but the country. We must look for opportunities to promote and allow the exportation of coal, oil and gas, to where there is a substantial need for energy. This measure alone would assist in the reduction of Green House Gas (GHG) emissions internationally, provide good paying jobs and support vibrant communities.

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New technology is being discovered every day and while many innovative ideas are either in the Research and Development or demonstration phases, some are advancing to commercialization faster than we realize. Products under development include, but are not limited to: components for asphalt for roads and roofing materials, building materials (bricks, foam, drywall, pavers, aggregate for roads and other products), graphene oxide, soil amendments that can be used in reclamation, and polymer products (decking

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The use of the Biden Administrations’ Interagency Working Group on the Social Cost of Greenhouse Gases’ (IWG) latest estimates regarding the “Social Cost of Carbon” in this analysis illustrates yet another example of the federal government solely considering information which leads to its predetermined desired outcome. Its use in the context of this RMP amendment is premature, beyond the scope of the SEIS and lacks legal and scientific support. For example, the cost per ton of CO2 has ranged in recent years from \$1 to \$340. The estimates are politically driven and not based on any sort of scientific certainty. This arbitrary figure is difficult to rectify when compared to the very real budgets of Wyoming’s miners, families struggling to pay their energy bills across the country, and state services dependent on mineral royalties.

Converse County does not support the use of metrics such as the SCC to be applied to the production of coal. The SCC assumes that all fossil fuels will be combusted with no carbon mitigation nor with the utilization of CCUS/CCS. In most all instances, greenhouse gas emissions will be mitigated and that should be a significant consideration.

- Environmental Justice –

1. Chapter 3, Affected Environment 3.4.5, Page 3-108 and Appendix E (Environmental Justice Support Document) – The County challenges BLMs premise for determining



block census tracks identified in Converse County under both the Affected Environment and Appendix E (Environmental Justice Support Document) as meeting the criteria for Environmental Justice communities of concern. BLM uses the metrics to determine this designation by looking at total population, minority percentage per geographic area, Native American populations per geographic area, and low-income population per geographic areas. It is therefore determined that several block census tracks meet the criteria for Environmental Justice areas due to coal, oil and gas, leasing and production throughout the County. We would argue the opposite affect is true for the County and its citizens for leasing and production of coal.

In its SEIS, BLM defines “environmental justice” as “the fair treatment and meaningful involvement of all potentially affected people—regardless of race, color, national origin, or income.” (BLM IM2022-059) (adopting EPA’s definition). Pursuant to this definition, “fair treatment” means that “no group should bear a disproportionate share of the adverse consequences that could result from federal environmental programs or policies.” (Id.). On the other hand, “meaningful involvement” involves “allowing all portions of the population a meaningful opportunity to participate in the development of, compliance with, and enforcement of Federal laws, regulations, and policies affecting human health or the environment regardless of race, color, national origin, or income.” (Environmental Justice Guidance Under the National Environmental Policy Act 23 (Appendix A) <https://www.doi.gov/sites/doi.gov/files/uploads/EJ-under-NEPA.pdf>). This definition requires BLM to consider 1) whether groups and communities affected by BLM decision-making will bear a disproportionate share of the adverse consequences resulting from BLM programs and policies; and 2) whether those communities have been meaningfully involved in the decision-making process.

Wyoming communities will be disproportionately harmed by a BLM decision that limits or restricts or eliminates coal, oil, or gas leasing in the Powder River Basin. Wyoming’s Powder River Basin (PRB) is home to some of the world’s largest surface coal mines along with an abundance of oil and gas resources and with many rural communities in Northeast Wyoming highly dependent on the energy industries for jobs, tax revenue, and social safety nets. A reduction or the elimination of mineral leasing would significantly impact many communities in our area of the State.

As energy markets have shifted away from coal, in part due to federal policy and market trends, coal communities in Wyoming are increasingly vulnerable to socioeconomic harm. All of Northeast Wyoming is designated a “Priority Energy

Community” by the U.S. Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. This designation signals a high dependence on coal jobs and the potential for severe economic harm should coal decline.

Not only does coal support the economic vitality of Wyoming communities, but it also provides much-needed community support. Historically, mining companies in the Powder River Basin have partnered with and provided the majority of support for community service programs, including programs associated with substance abuse recovery and mental health. Although Converse County is not currently designated a “disadvantaged community” pursuant to BLM screening metrics for income and race, policies that limit the region’s use of its abundant remaining coal reserves would result in severe socioeconomic harm to the region, potentially rendering Converse County a “disadvantaged community” in the near future. This is partly the reason we disagree with the BLM determination that there are several census tract blocks that identify parts of Converse County as meeting the eligibility for Environmental Justice with coal production. We contend that without coal leasing and production along with continued oil and gas development, we would see much more detrimental impacts to our County and its citizens; therefore, the inverse to your determination is true.

Given the strong support for coal that exists in these communities, local and state leaders are optimistic about the potential for carbon capture, utilization, and storage (CCUS) technologies to aid in the decarbonization of the U.S. coal industry, with demands for coal from the Powder River Basin expected to persist for many years. As noted above, the University of Wyoming School of Energy Resources is also exploring new applications for the region’s abundant coal resources to carry the economy into the future. Alternative applications for Wyoming’s abundant remaining coal reserves, including the production of coal-based construction products and materials including CM and REE. By limiting the availability of coal for these applications, BLM could undermine the proactive efforts of potentially soon-to-be hard-hit communities to diversify and bolster their economies by finding low-carbon applications for the resources available to them.

Input from Wyoming communities should be meaningfully integrated in the decision-making process. The coal mining, oil, and gas sectors enjoy strong, vocal public support in Converse County and Wyoming in part due to the high-paying jobs and significant tax revenue associated with energy development. To further illustrate this point, additional information regarding socioeconomic impacts is discussed below.

- Consistency with Campbell County Natural Resource Plan (CCNRP) – Converse County encourages both state and federal agencies to be as consistent as allowed by law with the Converse County Natural Resource Management Plan adopted in July of 2022. The County Plan specifically recognizes that the private sector is the best engine for economic growth; and regulatory policies should respect the role of state and local governments. In adopting this land use plan, the Board of Converse County Commissioners intends that:
  - The basis for management of all public lands is multiple-use management that considers Converse County’s custom and culture and economic wellbeing in coordination with the County.
  - Private property and interests in private property are protected and the continuation of private economic pursuits is promoted within Converse County.
  - Federal and state agencies should support traditional multiple land uses within Converse County to maintain continuity in the local economy and assure the sustainability of existing agricultural, recreational, and industrial interests while maintaining or improving the present environmental quality of life.

Furthermore, NEPA establishes a national policy and goals for the protection, maintenance, and enhancement of the environment. Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. NEPA established a Council on Environmental Quality (42 US Code [USC] 4321 [1970]), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations [CFR] 1500-1508 [1970]). In these regulations is the requirement that federal agencies to consider and use local planning documents during their decision making and planning efforts (40 CFR 1506.2 [1978] and 43 CFR 1610.3-2(a) [1983]).

Additionally, the Federal Land Policy and Management Act (FLPMA) provides a framework for managing public lands that requires a systematic, interdisciplinary approach and requires coordination in land-use planning with other state and federal agencies. Under FLPMA (43 USC 1712 [1976]), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands. Converse County consistency review should be included in the SEIS.

- Socioeconomic Impacts, Appendix D – As stated multiple times, coal, oil, and gas production is a critical component of the State and County’s economic base and also has a direct impact on schools, colleges, highways and the overall socioeconomics of the

community. The coal, oil, and gas industries generate high paying jobs to hundreds of people throughout the region, and while coal production from the Antelope Mine and the North Antelope/Rochelle Mine are decreasing, many mine workers continue to reside in Converse County. Coal production is an important component of the State and county's economic base and also has a direct impact on schools, colleges, highways, and the overall socioeconomics of the community. The coal industry generates high paying jobs to hundreds of people throughout the region. In 2020 and 2021, coal production generated \$3.2 million and \$8.7 million respectively in Converse County alone.

In addition to the socioeconomic information provided above, according to the Wyoming Mining Association 2022 Revenue Report, coal's estimated contribution to state and local revenue in Wyoming was about \$562.7 million (an increase of \$82.8 million or 17.3 percent from 2021). Wyoming coal mines continue to employ over 5,100 workers directly in the industry with more than 15,000 workers supported directly or indirectly. These facts are significant in the State and reinforces the importance of a continued fair and efficient federal coal leasing program. BLM should also consider advancements in coal development, technology improvements, and new products derived from coal when analyzing for future uses.

Funding derived from mineral development constitutes a significant portion of State and County revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Converse County but all counties, the State of Wyoming and its residents. Our ability to fund organizations would be negatively affected, which includes but is not limited to, the following: WY Child and Family Development, Children's Advocacy Project (forensic interviewing of sexually assaulted and abused children), Human Resource Council, 'Youth Development Services (Youth Crisis and Intervention Center)', Humane Society, Boys and Girls Clubs of Douglas and Glenrock, WY State Fair, Converse County Fair Board, Hope Center (Domestic Violence and Sexual Assault Survivors Crisis Center and Shelter), Douglas and Glenrock Libraries, High County Behavioral (Mental Health Crisis and Intervention Center), Douglas and Glenrock Economic Development organizations and various youth and community recreation organizations. Without County support these organizations will offer fewer public services and could fail and there would be insufficient funds to provide basic services at a level needed for the protection of the county resident's health, safety, and security.

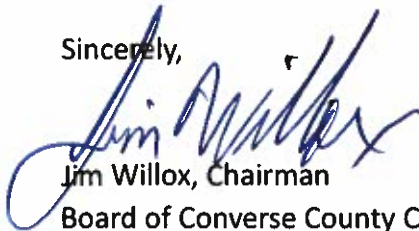
BLM must include and expand its analysis in Appendix D of the effects funding and revenue decreases would have on local services and programs should the no leasing or limited leasing alternative be adopted. Moreover, the BLM should include an in-depth

analysis on where those funding streams will be recovered if mineral leasing and development is significantly reduced or eliminated long-term.

In conclusion, Converse County is committed to ensuring that we are part of the energy solution both domestically and abroad. Limited or no leasing of our fossil fuels is not the answer - advanced technology and innovation should be our focus. For all the reasons outlined above and more, we believe the only reasonable and responsible path forward is to support Alternative B (No Action), which gives us the latitude we need to explore advanced technologies for coal in the future, promote CCUS and reduce carbon emissions while still maintaining a reliable, affordable and abundant energy source for grid stability in this country.

Should you have questions or require additional information, do not hesitate to contact me via email at ([jim.willox@conversecountywy.gov](mailto:jim.willox@conversecountywy.gov)) or our natural resource policy advisor Dru Palmer at 307-388-2709 or via email at ([dru@wyoming.com](mailto:dru@wyoming.com)).

Sincerely,



Jim Willox, Chairman  
Board of Converse County Commissioners

CC: The Honorable Governor Mark Gordon  
United States Senator John Barrasso  
United States Senator Cynthia Lummis  
United States Congresswoman Harriet Hageman  
Jerimiah Rieman, Wyoming County Commissioners Association  
Travis Deti, Wyoming Mining Association  
Rusty Bell, Office of Economic Transformation

**Attachment #4**

**Campbell County Buffalo Coal Supplemental Draft Environmental Impact Statement (SEIS)  
and Resource Management Plan Amendment Comments dated August 14, 2019**

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**BOARD OF COMMISSIONERS**

Rusty Bell, Chairman  
Mark A. Christensen  
Bob Maul  
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Del Shelstad

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August 14, 2019

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Email: [blm\\_wy\\_bfo\\_coal\\_seis@blm.gov](mailto:blm_wy_bfo_coal_seis@blm.gov)

RE: Buffalo Coal Supplemental Draft Environmental Impact Statement (SEIS) and Resource Management Plan  
Amendment dated May of 2019

Dear Mr. Bills:

On behalf of the Campbell County Board of Commissioners, I want to thank you and the Bureau of Land Management (BLM) for allowing us the opportunity to submit comments regarding the above-referenced plan amendment. Campbell County's economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the county but within the state and across the country. Coal production is a critical component of the county's economic base and also has a direct impact on school districts and the overall socioeconomics of the area. Continued coal leasing and development is essential to the long-term health of our County and the State of Wyoming.

In compliance with the United States District Court for the District of Montana court order (Western Organization of Resource Councils et al. v. BLM), the BLM prepared a Supplemental Draft Environmental Impact Statement (SDEIS) to possibly amend the 2015 Buffalo Resource Management Plan (RMP) which analyzes the amount of coal available for leasing, considers climate change impacts to coal leasing, and considers consequences of downstream fossil fuel combustion from coal, oil, and gas, including global warming potential over a 20-year or 100-year time horizon. Upon review of the SDEIS, Campbell County believes that BLM has sufficiently responded to the issues raised by the court order through Alternative B and therefore, has adequately addressed the courts concerns in this analysis.

Due to the technical nature of the SDEIS content regarding global climate change and greenhouse gas emissions, Campbell County reached out to the University of Wyoming - School of Energy Resources to engage their expertise and to assist in the review of the document regarding those issues. Those comments are attached, incorporated by reference and included as part of Campbell County's comments. They specifically address: 1) The adequacy of the

SDEIS and its compliance with the court order; 2) The adequacy of the analysis as it pertains to environmental consequences of downstream combustion; and 3) Disruptive changes to current technology used for coal development. These comments support, and are complementary to, Campbell County's comments and position.

In addition, Campbell County submits the following comments for BLMs consideration:

- Page 2-2, 2.2.2 Alternative B, Figure 2-2 Alternative B – “...**Figure 2-2** shows the Alternative B CDPA; it represents a 34 percent reduction in coal acceptability, compared with the Alternative A CDPA...”

Campbell County has consistently provided input regarding the adjustment to the coal CDPA. The County has supported modifications to the boundary on the east and north side of the CDPA but has opposed reductions on the west side. BLM has stated that the most effective development opportunities are on the west side of the CDPA and with advancements in technology, this area could be economical for development. Additionally, there are permitting advantages for coal companies if a prospective area is included in the CDPA, which provides for more timely resource access and a streamlined permitting process for leasing and ultimately, development. For reasons previously analyzed and approved by BLM in the 2015 Buffalo RMP Record of Decision, we continue to support the boundary lines identified on the west side of the CDPA.

Furthermore, Campbell County firmly supports the maximum acreage of coal resources to be identified and be made available for leasing in the CDPA, which is consistent with the Amended Campbell County Land Use Plan (2016). Therefore, because the west side reduction remains in Alternative B, Campbell County supports the No Action (Alternative A).

- Page 3-27, Local Revenues – “...On annual average, leasing and production of federal coal in the BFO is projected to generate \$16.9 million in ad valorem tax revenue for Campbell County between 2019 and 2038 and nearly \$435,000 in tax revenues for Campbell County over the next 10 years...”

BLM should clarify this statement as to what type of “tax revenue” they are referring to or is the \$435,000 ad valorem taxes for Converse County over the next ten years.

- Page 3-33, Direct and Indirect Impacts, Analysis Methods, Assumptions – “The factors with the greatest impact on vegetation and soil health are the introduction and expansion of invasive plants species, surface-disturbing activities, large grazing ungulates...”

There is a plethora of science that could be provided outlining the benefits of large grazing ungulates and their impact on soil health and vegetation. It is inappropriate to list cattle and sheep in this category as factors having the greatest impacts on vegetation and soil health and should be removed from this assumption.

- Page 3-37, Species of High State Interest (Criterion 15), Sage Grouse – “...No new coal lease applications in PHMA...are reasonably foreseeable...The BLM will review individual lease applications, in consultation with the WGFD, and will identify specific mitigation regarding Greater Sage-Grouse...”



BM appropriately recognizes that Sage-Grouse PHMA does not exist in the CDPA. As addressed in the Wyoming Greater Sage-Grouse RMP/LRMP Amendments of 2015, should mining operations directly or indirectly impact Sage-Grouse or PHMA habitat, BLM will align with management directives in the State of Wyoming Executive Order 2015-4.

In conclusion, BLM has done an admirable job of coordinating with cooperating agencies throughout the entire planning process, and Campbell County appreciates the extra effort as this document has a significant impact on the counties socio-economic vitality. Campbell County believes BLM adequately addressed the issues remanded in the court order. While we support the boundary reductions on the north and east side of the CDPA, we cannot support the reduction on the west side of the CDPA of Alternative B and therefore, support the No Action (Alternative A).

We appreciate the opportunity to provide comments on this project, and we look forward to continuing to work with BLM as we move toward a time-sensitive Record of Decision. Should you have questions or require additional information, do not hesitate to contact me or our natural resource policy advisor Dru Bower at 307-388-2709 or [dru@wyoming.com](mailto:dru@wyoming.com).

Sincerely,



Rusty R. Bell  
Chairman

Enclosure

CC: The Honorable Governor Mark Gordon  
United States Senator Mike Enzi  
United States Senator John Barrasso  
United States Congresswoman Liz Cheney  
Kipp Coddington – University of Wyoming - School of Energy Resources  
Jeremiah Reiman – Wyoming County Commissioner Association  
Travis Deti – Wyoming Mining Association

*The mission of Campbell County is to provide quality, efficient, and cost-effective services for all Campbell County residents through sound decision making and fiscal responsibility.*

# UNIVERSITY OF WYOMING

School of Energy Resources  
Department 3012 • 1000 E. University Ave. • Laramie, WY 82071-2000  
(307) 766-6731 • fax (307) 766-6078

August 13, 2019

Chairman Rusty Bell  
Campbell County Commissioners  
500 S. Gillette Ave.  
Suite 1100  
Gillette  
WY 82716

Re: Draft Supplemental Environmental Impact Statement and Resource Management Plan Amendment

As requested, this letter offers observations on the climate policy-related aspects of the Draft Supplemental Environmental Impact Statement (“SEIS”) and Resource Management Plan Amendment for the Approved Resource Management Plan for the Buffalo Field Office, Wyoming (*84 Fed. Red. 22515* (May 17, 2019)) that was prepared in furtherance of the Opinion and Amended Order dated March 26, 2018 in *Western Organization of Resource Councils, et al. v. U.S. Bureau of Land Management* (CV 16-21-GF-BMM) (“Order”); *see also* Order dated July 31, 2018.

## General Comments

The SEIS complies with the Order. Specifically as to climate policy, the court concluded that the SEIS must: (1) “consider ... the environmental consequences of the downstream combustion of the coal, oil and gas resources potentially open to development” with a focus on “foreseeable downstream emissions from estimated development” ... (Order, pp. 35, 36); and (2) explain the use of a “100-year time horizon” for Global Warming Potential (“GWP”) and otherwise explain the “changing science” related to GWP (Order, p. 41).

With the exception of our “Specific Comments” below, the SEIS does both. With respect to “foreseeable downstream emissions” associated with coal, the SEIS quantifies, using accepted methodologies, greenhouse gas (“GHG”) emissions from estimated future production, transportation and downstream combustion of PRB coal (SEIS, p. 3-11). Transportation data are based upon U.S. Energy Information Administration Coal Data Browser (SEIS, p. 3-12). The SEIS uses EPA Emission Factors (SEIS, p. 3-12). The SEIS adjusts GHG emissions based on both 20- and 100-year time horizons (SEIS, p. 3-12). The SEIS explains that 100-year GWPs were selected and why; 100-year GWPs are routinely used by regulators, particularly when considering long-lived substances such as carbon dioxide (“CO<sub>2</sub>”). As the SEIS also notes, 20-year GWPs are typically used for shorter-lived substances such as methane.

The SEIS is also in alignment with the White House Council on Environmental Quality’s (“CEQ”) recent draft guidance (Draft CEQ NEPA Guidance; June 26, 2019) regarding how National

Environmental Policy Act (“NEPA”) analysis and documentation should address GHG emissions.<sup>1</sup> The prior guidance was withdrawn effective April 5, 2017 (82 Fed. Reg. 16576 (April 5, 2017)). The Draft CEQ NEPA Guidance, for example, emphasizes the “rule of reason” approach that governs all NEPA analyses. Specifically with respect to downstream emissions, the Draft CEQ NEPA Guidance states (pp. 4-5; references omitted):

Agencies should attempt to quantify a proposed action’s project direct and reasonably foreseeable indirect GHG emissions when the amount of those emissions is substantial enough to warrant quantification, and when it is practicable to quantify them using available data and GHG quantification tools. Agencies should consider whether quantifying a proposed action’s projected reasonably foreseeable GHG emissions would be practicable and whether quantification would be over speculative. If an agency concludes that quantification would not be practicable or would be overly speculative, it should explain its decision.

Here again and with the exception of our “Specific Comments” below, the SEIS satisfies these pending requirements, the general goal of which is to simplify and streamline GHG assessments under NEPA. Following a rule of reason, the SEIS sets forth a reasonable and comprehensive assessment of GHG impacts associated with reasonably foreseeable future coal production from the PRB.

### Specific Comments

*Comment #1: Not all future coal to be produced will necessarily be combusted with unabated CO<sub>2</sub> emissions.* With respect to downstream GHG emissions for coal, the SEIS assumes that “[a]ll future coal produced is combusted in US energy generating units” (“EGUs”) (SEIS, p. 3-14).

It is reasonably foreseeable that in the future at least some amount of PRB coal may be combusted in EGUs utilizing carbon capture & storage (“CCS”) and/or carbon capture utilization & storage (“CCUS”) technologies. Congress has provided funding for research and projects related to CCS/CCUS technologies for decades.<sup>2</sup>

The U.S. Department of Energy (DOE) is currently funding research with the goal of siting one or more large-scale CCS/CCUS projects at coal-fired power plants and other large emitters of CO<sub>2</sub> by 2026. Known as the Carbon Storage Assurance Facility Enterprise (“CarbonSAFE”) initiative, this effort focuses on the development of geologic storage sites for the storage of 50+ million metric tons of CO<sub>2</sub> from industrial sources, including coal-fired power plants.<sup>3</sup> Researchers at the University of Wyoming are leading a CarbonSAFE project in Gillette, Wyoming.

Other CCS/CCUS projects are in operation and development worldwide.<sup>4</sup>

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<sup>1</sup> [https://ceq.doe.gov/guidance/ceq\\_guidance\\_nepa\\_ghg.html](https://ceq.doe.gov/guidance/ceq_guidance_nepa_ghg.html). The recently extended comment period on this draft guidance closes August 26, 2019 (84 Fed. Reg. 35607 (July 24, 2019)).

<sup>2</sup> See Folger, P. “Recovery Act Funding for DOE Carbon Capture and Sequestration (CCS) Projects,” R44387 (Congressional Research Service, Feb. 18, 2016) (available at <https://fas.org/sgp/crs/misc/R44387.pdf>).

<sup>3</sup> <https://www.netl.doe.gov/coal/carbon-storage/storage-infrastructure/carbonsafe>.

<sup>4</sup> <https://co2re.co/>.

Federal and state CCS/CCUS-related regulations are in place in anticipation of more projects being developed in the United States in the years ahead. Federally, for example, the U.S. Environmental Protection Agency (“EPA”) has issued regulations governing: (1) the injection of CO<sub>2</sub> in a variety of geologic formations<sup>5</sup>; and (2) the management of CO<sub>2</sub> emissions under a variety of Clean Air Act (“CAA”) regulatory programs that apply to major stationary sources, including coal-fired power plants. Under the CAA’s Prevention of Significant Deterioration program, technologies such as CCS/CCUS may be deemed a “Best Available Control Technology” (“BACT”) based upon consideration of a variety of technical, economic and related factors. Specifically with respect to BACT, EPA has stated the following:

For the purposes of a BACT analysis for GHGs, EPA classifies CCS as an add-on pollution control technology that is “available” for facilities emitting CO<sub>2</sub> in large amounts, including fossil fuel-fired power plants, and for industrial facilities with high-purity CO<sub>2</sub> streams (e.g., hydrogen production, ammonia production, natural gas processing, ethanol production, ethylene oxide production, cement production, and iron and steel manufacturing). For these types of facilities, CCS should be listed in Step 1 of a top-down BACT analysis for GHGs. This does not necessarily mean CCS should be selected as BACT for such sources. Many other case specific factors, such as the technical feasibility and cost of CCS technology for the specific application, size of the facility, proposed location of the source, and availability and access to transportation and storage opportunities, should be assessed at later steps of a top-down BACT analysis. However, for these types of facilities and particularly for new facilities, CCS is an option that merits initial consideration and, if the permitting authority eliminates this option at some later point in the top-down BACT process, the grounds for doing so should be reflected in the record with an appropriate level of detail.<sup>6</sup>

And although the recently finalized Affordable Clean Energy rule under section 111(d) of the CAA did not include CCS as a Best Source of Emission Reduction (“BSER”), EPA stated that CCS could nonetheless be used a compliance option by the states:

Nevertheless, while many commenters argued that CCS should not be considered part of the BSER, they supported its use as a potential compliance option for meeting an individual unit’s standard of performance. The EPA agrees with this assessment. Evaluation of the technical feasibility (e.g., space considerations, integration issues, etc.) and the economic viability (e.g., the prospects and availability of long-term contractual arrangements for sale of captured CO<sub>2</sub>, the cost of constructing a CO<sub>2</sub> pipeline, the availability of tax credits, etc.) of a CCS project is heavily dependent on source-specific characteristics.

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<sup>5</sup> <https://www.epa.gov/uic/class-vi-wells-used-geologic-sequestration-co2>.

<sup>6</sup> “PSD and Title V Permitting Guidance for Greenhouse Gases,” pp. 32-33 (EPA, March 2011) (available at <https://www.epa.gov/sites/production/files/2015-07/documents/ghgguid.pdf>).

Accordingly, state plans may authorize such projects for compliance with this rule.<sup>7</sup>

Congress has adopted CCS/CCUS-related incentives, too. For example, in the coming months, the Internal Revenue Service is expected to release implementation guidance for the recently amended section 45Q federal tax credit.<sup>8</sup> Many observers believe that the section 45Q tax credit has the potential to stimulate innovation and the use of carbon capture, utilization, transmission, and storage technologies. The University of Wyoming CarbonSAFE research team's economic model for the Gillette-based project considers the section 45Q credit.

CCS/CCUS is expected to grow in importance in the years ahead for a variety of reasons, including implementation of the Paris Agreement next year and state adoption of mid-century net-zero GHG emission standards. In January 2019, the California Air Resources Board recognized utilization of CCS/CCUS technologies as a compliance pathway under that State's Low Carbon Fuel Standard.<sup>9</sup>

*Comment #2: Not all future coal to be produced will necessarily be combusted with unabated emissions; some may be utilized for products.* As noted above, with respect to downstream GHG emissions for coal, the SEIS assumes that “[a]ll future coal produced is combusted in US energy generating units” (SEIS, p. 3-14).

It is reasonably foreseeable that at least some amount of PRB coal may be utilized for non-combustion purposes, such as in the production of high-value products. With funding from the State of Wyoming, for example, researchers at the University of Wyoming are in the midst of a multi-year carbon engineering research program that is investigating non-combustion coal products. Subject to potential resolution of technical and economic considerations, one day PRB coals may also serve as source of Rare Earth Elements and Critical Minerals that are needed in a variety of strategic and renewable energy systems.

*Comment #3: Disruptive changes to current technology used for coal development are possible.* The SEIS notes that “[t]here will be no disruptive changes to current technology uses for coal development.” As noted above in Comments ##2 & 3, the University of Wyoming, supported by DOE and the State of Wyoming, is advancing various technologies that we believe hold promise for the future use of coal when combusted and new markets for coal. While disruptive changes cannot be predicted, they also cannot be eliminated.

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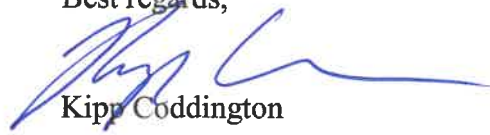
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<sup>7</sup> 84 Fed. Reg. 32520, 32549 (July 8, 2019) (available at <https://www.govinfo.gov/content/pkg/FR-2019-07-08/pdf/2019-13507.pdf>).

<sup>8</sup> 26 U.S.C. § 45Q (2019).

<sup>9</sup> “Carbon Capture and Sequestration Protocol under the Low Carbon Fuel Standard” (California Air Resources Board, Aug. 13, 2018) (available at [https://ww3.arb.ca.gov/fuels/lcfs/ccs\\_protocol\\_010919.pdf](https://ww3.arb.ca.gov/fuels/lcfs/ccs_protocol_010919.pdf)).

Best regards,



Kipp Coddington

Director  
Energy Policy & Economics  
School of Energy Resources

**Attachment #5**

**Campbell County Buffalo Coal Final Supplemental Environmental Impact Statement (SEIS)  
and Resource Management Plan Amendment Comments dated November 4, 2019**

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Carol J. Seeger  
Commissioners Administrative Director

**BOARD OF COMMISSIONERS**

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Mark A. Christensen  
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November 4, 2019

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RE: Buffalo Coal Final Supplemental Environmental Impact Statement (SEIS) and Resource Management Plan Amendment dated October of 2019

Dear Mr. Bills:

On behalf of the Campbell County Board of Commissioners, I want to thank you and the Bureau of Land Management (BLM) for allowing us the opportunity to submit comments regarding the above-referenced plan amendment. Campbell County's economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the county but within the state and across the country. Coal production is a critical component of the county's economic base and also has a direct impact on school districts and the overall socioeconomics of the area. Continued coal leasing and development is essential to the long-term health of our County and the State of Wyoming.

In compliance with the United States District Court for the District of Montana court order (Western Organization of Resource Councils et al. v. BLM), the BLM prepared a Supplemental Environmental Impact Statement (SDEIS) to possibly amend the 2015 Buffalo Resource Management Plan (RMP) which analyzed for the amount of coal available for leasing, considered climate change impacts to coal leasing, and considered consequences of downstream fossil fuel combustion from coal, oil and gas, including global warming potential over a 20-year or 100-year time horizon. Campbell County believes that BLM has sufficiently complied with the court order through this supplemental EIS and, therefore, has adequately addressed the court's concerns in this analysis.

While Campbell County is not submitting a formal protest, we did want to submit comments to express our support for BLM's modified Alternative B. On page ES-5 (ES.6.3 – Proposed Plan), the agency states "The BLM Field Manager recommends a modified Alternative B as the Proposed RMP Amendment for allocating BLM administered coal within the Buffalo Field Office. BLM added 39,784 acres to Alternative B to ensure flexibility for mining in the most efficient



manner, such as providing options for locating infrastructure in a manner that promotes the sensible use of the resource.” In addition, BLM recognizes on page 2-7 (2.2.4 Rationale for Identifying a Proposed Plan Amendment) that the “...Proposed Plan Amendment allows for conservation of resources while still providing for the expansion of existing mines and associated infrastructure and provides an opportunity for future new uses of coal, such as carbon fiber development.”

Campbell County has consistently provided input and expressed concerns regarding the adjustment to the Coal Development Potential Area (CDPA) identified in Alternative B. The County has supported modifications to the boundary on the east and north side of the CDPA but has opposed reductions on the west side. BLM has admitted that the most effective development opportunities are on the west side of the CDPA, and with advancements in technology, this area could be economical for development. Additionally, there are permitting advantages for coal companies if a prospective area is included in the CDPA, which provides for more timely resource access and a streamlined permitting process for leasing and ultimately development. Therefore, based on BLM’s decision to include the 39,784 acres on the west side of the CDPA boundary, we support the modified Alternative B as the Proposed Plan for this document.

We appreciate the opportunity to provide comments on this project, and we encourage the agency to move forward with the timely issuance of the Record of Decision. Should you have questions or require additional information, do not hesitate to contact Ms. Carol Seeger in our office at 307-682-7283 ([CJS06@ccgov.net](mailto:CJS06@ccgov.net)) or our natural resource policy advisor Dru Bower at 307-388-2709 ([dru@wyoming.com](mailto:dru@wyoming.com)).

Sincerely,



Rusty R. Bell  
Chairman

CC: The Honorable Governor Mark Gordon  
United States Senator Mike Enzi  
United States Senator John Barrasso  
United States Congresswoman Liz Cheney  
Kipp Coddington – University of Wyoming - School of Energy Resources  
Jeremiah Reiman – Wyoming County Commissioner Association  
Travis Deti – Wyoming Mining Association

**Attachment #6**  
**Campbell County Buffalo Resource Management Plan (RMP)**  
**Supplemental Draft Environmental Impact Statement (EIS)**  
**Scoping Comments dated November 1, 2022**

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Denton Knapp  
Executive Director of Administration

**BOARD OF COMMISSIONERS**

Del Shelstad, Chairman  
Rusty Bell  
Bob Maul  
Colleen Faber  
Don Hamm

November 1, 2022

Mr. Thomas Bills  
Project Manager  
Buffalo Field Office  
BUREAU OF LAND MANAGEMENT  
1425 Fort Street  
Buffalo, Wyoming 82834  
Email: [tbills@blm.gov](mailto:tbills@blm.gov)  
Website: <https://eplanning.blm.gov/eplanning-ui/project/2021239/510>

RE: Buffalo Resource Management Plan (RMP) Supplemental Draft Environmental Impact Statement (EIS)  
[Federal Register/Volume 87, No. 190/Monday, October 3, 2022/Notices/Page 59818]

Dear Mr. Bills:

On behalf of the Campbell County Board of Commissioners ("County"), I want to thank you and the Bureau of Land Management (BLM) for allowing us the opportunity to submit comments regarding the above-referenced document. Campbell County's economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the county but within the state and across the country. Coal production is a critical component of the county's economic base and also has a direct impact on school districts and the overall socio economics of the area. Continued coal leasing and development is essential to the long-term health of our County and the State of Wyoming.

The County has been engaged in this planning process with the BLM for years and will remain committed to continuing to work as a cooperating agency to finally resolve these issues. We have consistently provided input regarding adjustments to the Coal Development Potential Area (CDPA), the effects of global climate change and greenhouse gas emissions, along with environmental consequences of downstream combustion all of which have a direct and indirect impact to our County's economic health.

In 2019 and in compliance with the United States District Court for the District of Montana court order (Western Organization of Resource Councils et al. v. BLM), the BLM amended the Buffalo RMP. Campbell County participated in that plan amendment process and still believes that BLM sufficiently complied with the court order and therefore, adequately addressed the courts concerns. However, in August of 2022 the Court invalidated the Buffalo RMP based upon an inadequate environmental analysis violating NEPA and APA and is once again requiring additional analysis to be completed.

Specifically, the Court held that NEPA required BLM to undertake the following actions: 1) consider alternatives that would reduce the amount of available coal; 2) conduct new coal screenings; 3) supplement the EIS with an analysis of the environmental consequences of downstream combustion of coal, oil, and gas open to development under the RMP; and 4) provide a longer timeline for review of the impacts of coal development.

While the County does not have new or additional information to present beyond what has previously been put forward, we did want to submit comments to express our support for BLM's identified alternatives: 1) No Action -- Decision from the 2019 Approved RMP Amendment; 2) No Leasing Alternative -- No availability of federal coal for future consideration of leasing; and 3) Reduced Leasing Alternatives -- Reduced availability of federal coal for future consideration of leasing. In addition, BLM has been directed to again attempt to sufficiently analyze and "disclose the public health impacts, both climate and non-climate, of burning fossil fuels (coal, oil, and gas) from the planning areas" (Fed Reg/Volume 87, No. 190/Monday, October 3, 2022/Page 59819). The County is committed to working with the agency to satisfy the court.

Campbell County encourages BLM to again move forward with timely compliance of the court order as this document has a significant impact on the County's current and future socio and economic vitality. Should you have questions or require additional information, do not hesitate to contact Mr. Denton Knapp in our office at 307-682-7283 ([denton.knapp@campbellcountywyo.gov](mailto:denton.knapp@campbellcountywyo.gov)) or our natural resource policy advisor Dru Palmer at 307-388-2709 ([dru@wyoming.com](mailto:dru@wyoming.com)).

Sincerely,



Del Shelstad  
Chairman

CC: The Honorable Governor Mark Gordon  
United States Senator John Barrasso  
United States Senator Cynthia Lummis  
United States Congresswoman Liz Cheney  
Jerimiah Reiman – Wyoming County Commissioner Association  
Travis Deti – Wyoming Mining Association

**Attachment #7**

**Johnson County Notice of Intent to Prepare a Supplemental Environmental Impact Statement  
for the 2015 Resource Management Plan Comments dated December 24, 2018**

# JOHNSON COUNTY COMMISSIONERS



William J. Novotny, III

Linda Greenough

Robert Perry

December 24, 2018

Mr. Tom Bills  
Buffalo Field Office  
Bureau of Land Management  
1425 Fort Street  
Buffalo, WY 82834

Re: Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the 2015 Resource Management Plan

Dear Mr. Bills:

Johnson County is pleased to exercise its cooperating agency status and appreciates the opportunity to provide comments to the Supplemental Environmental Impact Statement (SEIS) for the 2015 approved resource management plan (RMP).

The SEIS must consider changes in the coal market as coal powered plants move offline and the industry fails to secure export terminals to absorb excess capacity in production. Enhanced carbon capture technologies are also becoming more widely used in industry and are lowering carbon dioxide emissions. The decline in coal usage must be factored into any examination of emissions as directed by the Ninth Circuit Court decision.

It is our view that the 2015 RMP made adequate protections for wildlife and the environment while promoting multiple use. The Judge's decision, driven by radical environmental groups, should have never enjoined the Buffalo RMP with the Montana RMP in the Ninth Circuit. Because our RMP was published in the Federal Register along with the Montana plan, it is not a logical reason to throw our decision into limbo and risk destroying Wyoming's economy.

Finally, Johnson County has grave concerns about the impact any revision to the RMP will have on our local economy. While none of the coal for lease deemed as suitable is located within the boundaries of our county, many of our residents travel to Sheridan or Campbell Counties to work in the coal extraction industry. Prohibiting or severely curtailing coal mining would have a devastating impact on our region and our state.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. J. Novotny, III", is written over a horizontal line.

William J. Novotny, III  
Chairman

**Attachment #8**  
**Campbell County Buffalo Resource Management Plan (RMP)**  
**Supplemental Draft Environmental Impact Statement (EIS)**  
**Scoping Comments dated November 1, 2022**

# JOHNSON COUNTY COMMISSIONERS



William J. Novotny, III

Linda Greenough

Robert Perry

November 2, 2022

Bureau of Land Management  
Buffalo Field Office  
1425 Fort Street  
Buffalo, WY 82834

Re: Buffalo Field Office Resource Management Plan Supplemental Environmental Impact Statement

Dear Field Manager Yeager:

On December 1, 2020, Johnson County formally adopted its Natural Resource Management Plan (Johnson County NRMP). Utilizing Johnson County's Cooperating Agency status and the consistency review process, Johnson County provides the following comments for the Supplemental Environmental Impact (EIS) to the 2019 Supplemental Buffalo Resource Management Plan Final EIS.

Consistent with provisions in the Johnson County NRMP, if the federal agency receives a local plan in the course of writing an EIS or Environmental Assessment, the National Environmental Policy Act commands the federal agency to "discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the [environmental impact] statement should describe the extent to which the [federal] agency would reconcile its proposed action with the [local government] plan or law." (40 C.F.R. §§ 1506.2, 1506.2(d))

Johnson County supports the no action taken alternative. Removing additional leasing acreages, as occurred in the 2018 revision to the RMP; reducing the availability of current and future lease acreages; or the prohibition of fossil fuel extraction would conflict with Johnson County's NRMP and inflict insurmountable economic hardships upon Johnson County and its residents.

Any revision to the Bureau of Land Management's RMP would conflict with the Johnson County NRMP's stated intent "to help protect the local citizens' use of, and access to, federally administered lands and resources and to ensure the socioeconomic wellbeing, culture, and customs of a local community are adequately considered in federal decisions." (Johnson County Natural Resource Plan, Page 41)

Specifically, Johnson County "supports the production of all minerals in an environmentally responsible manner by providing infrastructure and services such as roads, bridges, medical services, and law enforcement." (Johnson County Natural Resource Plan, Chapter 3, Section 3.3, Mining and Mineral Resources Page 47)



Further detailed in Resource Management Objective A: “The extraction of coal, oil, gas, bentonite, uranium, and other minerals within the County are continued in a sustainable and ecologically healthy way.” (Johnson County Natural Resource Plan, Chapter 3, Section 3.3, Mining and Mineral Resources, Page 48)

Under Wyoming statute, Johnson County is deemed to have special expertise on all subject matters for which it has statutory responsibility including, but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture, and socio-economic viability of a County (Wyo. Statute 18-5-208(a)). Revisions to the BLM’s RMP could directly impact the socio-economic viability of Johnson County. “The mining production in the county had an assessed valuation of \$181.7 million dollars in 2017. This valuation represented 45 percent of the total assessed valuation for the county. In 2016, the mining industry in the county supported 384 jobs earning \$14.5 million. This represented six percent of total employment and seven percent of total labor force.” (A Johnson County Profile: Socioeconomics, October 2018, Page 41)

The proposed alternatives being considered by the BLM are draconian, would have no measurable improvements on public health, and would eliminate ad valorem tax dollars generated from mineral production. The alternatives would also reduce the jobs directly and indirectly associated with this production which occurs primarily on public lands administered by the BLM.

In conclusion, Johnson County supports the no action alternative which would be consistent with the Johnson County NRMP.

Sincerely,



William J. Novotny, III  
Chairman

**Attachment #9**  
**Campbell County Supplemental Information Submitted to BLM**  
**regarding the 2023 Buffalo Draft Resource Management Plan Amendment and**  
**Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office**  
**Approved Resource Management Plan (RMP), Wyoming dated September 19, 2023**

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Denton Knapp  
Executive Director of Administration

**BOARD OF COMMISSIONERS**

Colleen Faber, Chairman  
Del Shelstad  
Jim Ford  
Butch Knutson  
Kelley McCreery

---

September 19, 2023

Mr. Todd D. Yeager  
Buffalo Field Manager  
Buffalo Field Office  
BUREAU OF LAND MANAGEMENT  
1425 Fort Street  
Buffalo, Wyoming 82834-2463  
Email: [tyeager@blm.gov](mailto:tyeager@blm.gov)  
[tbills@blm.gov](mailto:tbills@blm.gov)

RE: Supplemental Information Submitted to BLM regarding the 2023 Buffalo Draft Resource Management Plan Amendment and Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan (RMP), Wyoming

Dear Mr. Yeager:

On behalf of the Campbell County Board of Commissioners (County), we are submitting supplemental information for BLMs consideration and use regarding the above referenced document. Again, we stress that Campbell County's economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers not only in the County but within the State and across the country. Our ability to continue with a viable federal coal leasing program for either thermal or non-thermal uses is essential to our long-term socioeconomic health.

The County continues to be concerned with BLMs identification of the joint Preferred Alternative in the Draft Environmental Impact Statement (DEIS) as Alternative A (No Leasing) and Alternative C (Limited Leasing). Continued coal produced from Wyoming mines in the Powder River Basin (PRB) is essential to meet not only baseload electric generation needs in this country but to explore advanced technologies for non-thermal uses of coal in the future.

Through the Infrastructure and Investment Jobs Act (IIJA) and the Inflation Reduction Act (IRA) the Administration has appropriated DOE at unprecedented funding levels to promote the timely evolution of advanced technologies for coal (i.e. carbon management projects, REE/CM extraction from coal, etc.) to reduce carbon emissions. These demonstration projects are currently underway and they need a chance to ascertain whether or not commercialization is possible. New technology is being discovered every day and while many innovative ideas are either in the Research and Development or demonstration phases, some are advancing to commercialization faster than we realize. It would be premature to make a determination of no leasing or limited leasing until these projects reveal a clear path forward.

Furthermore, BLM is scheduled to initiate a Resource Management Plan Revision in 2035 and this timeframe would be more appropriate to look at land allocations and leasing. The market should be at a place where we can better determine actual coal needs for both thermal and non-thermal uses. Until then, the Coal Development Potential Area (CDPA) should

remain intact and coal should be made available for lease. Therefore, Campbell County contends that the only responsible and practical option is to support Alternative B (No Action).

In an effort to bolster the need for additional coal leasing and support for Alternative B, the County is submitting the attached information for BLMs consideration in the Final Environmental Impact Statement (FEIS) for the Buffalo Resource Management Plan Amendment. From the data and discussion provided in this submittal, the U.S. will require several hundred million tons of PRB coal to be mined annually to support a low carbon products industry, which include but are not limited to: critical mineral and materials recovery, asphalt materials from PRB coal, building materials from PRB coal, agriculture soil amendment products from PRB coal, and utilizing PRB coal for hydrogen production. Additionally, new sources are provided that support the thermal use of coal beyond 2040 which will have carbon capture and storage technologies associated with clean coal used for electricity generation. This will strengthen the need for coal products in the future and enforce the need to continue with a coal leasing program long-term.

In conclusion, Campbell County is committed to ensuring that we are part of the energy solution both domestically and abroad. Limited or no leasing of our fossil fuels is not the answer - advanced technology and innovation should be our focus and we must not eliminate or restrict our ability to access the feedstock before commercialization is realized. The County asks that BLM include this information as part of the analysis for the upcoming FEIS.

Upon review of this supplemental information, should you have questions or require additional information, do not hesitate to contact myself, Commissioner Jim Ford at 307-682-7283 [jim.ford@campbellcountywy.gov](mailto:jim.ford@campbellcountywy.gov) or our natural resource policy advisor Dru Palmer at 307-388-2709 ([dru@wyoming.com](mailto:dru@wyoming.com)).

Sincerely,



Colleen D. Faber  
Chairman

CC: The Honorable Governor Mark Gordon  
United States Senator John Barrasso  
United States Senator Cynthia Lummis  
United States Congresswoman Harriet Hageman  
Jerimiah Rieman, Wyoming County Commissioners Association  
Dr. Holly Krutka, University of Wyoming School of Energy Resources  
Travis Deti, Wyoming Mining Association  
Rusty Bell, Office of Economic Transformation

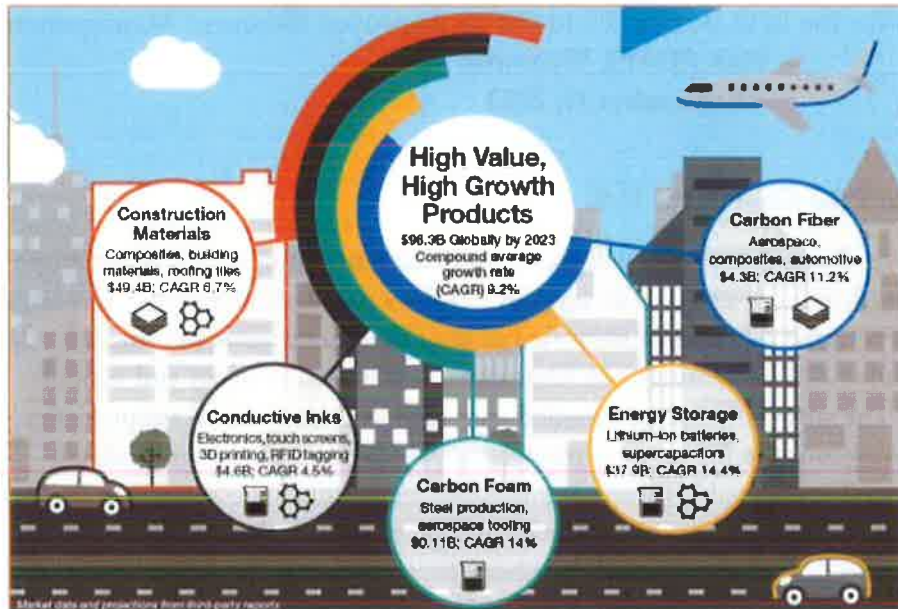
**Supplemental Information Submitted by Campbell County to BLM regarding the 2023  
Buffalo Draft Resource Management Plan Amendment and Supplemental Environmental  
Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management  
Plan (RMP), Wyoming  
September 19, 2023**

**Comments on Demand for PRB Coal in the U.S.**

The demand for Powder River Basin (PRB) coal will grow as the demand for clean low greenhouse gas products produced from carbon ore expands to support a carbon managed economy. The BLM should reconsider the joint Preferred Alternative identified in the Draft Environmental Impact Statement (DEIS) as Alternative A (No Leasing) and Alternative C (Limited Leasing) and support Alternative B (No Action). The supplemental information provided in this submittal supports the need for substantial coal leasing into the future to provide feedstock for low carbon products. PRB coal should be also viewed as a valuable carbon ore that has many unique properties to manufacture advanced materials for the future carbon managed economy. It also contains critical minerals and rare earth elements that when extracted can help the manufacture and deployment of renewable energy systems. Losing the ability to access the PRB coal resources will make the transition to a carbon managed society much longer and more costly. From the data and discussion provided below the U.S. will require several hundred million tons of PRB coal to be mined annually to support a low carbon products industry, critical mineral and materials recovery, hydrogen production, and continued use in the thermal power generation facilities.

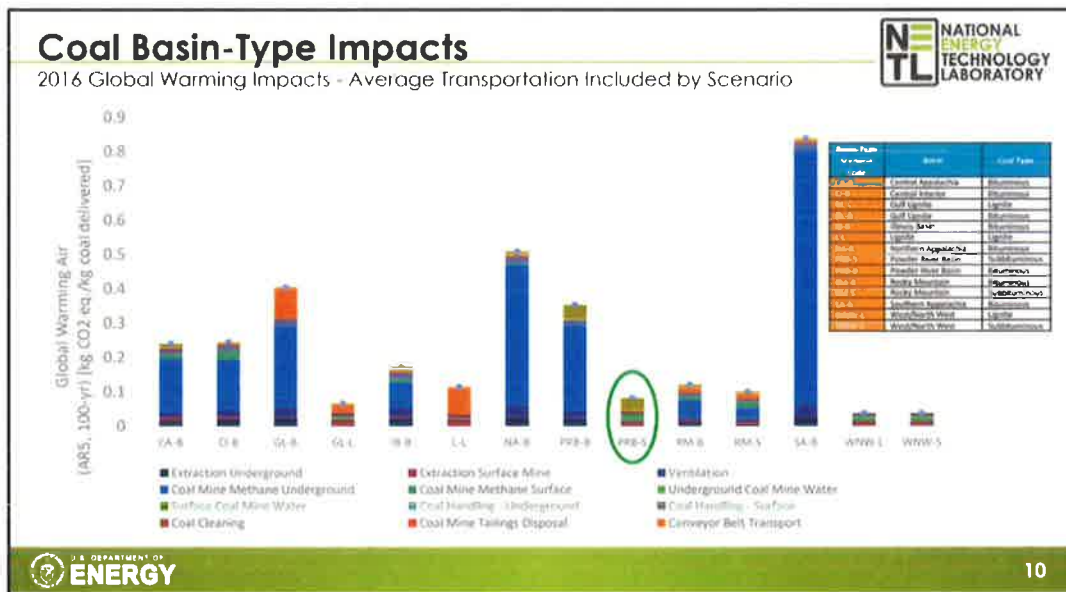
**Alternative Uses for Coal:** PRB coal/carbon ore is one of the most abundant raw materials, also referred to as carbon ore by industry, that can be used to manufacture advanced products to drive the U.S. and international economies to support carbon managed systems. PRB has unique properties and composition to manufacture critical minerals and materials; building materials and products; chemicals; and carbon free fuels to power an economy with a carbon managed energy system. Some of the materials and products from coal that will be produced from PRB coal/carbon-ore necessary for a clean energy future, market values, and compound annual growth rates are shown in the figure below.

**Figure 1D. Product & Application Market Potential of High-Value/High-Growth Products**



Source: National Energy Technology Laboratory

PRB coal/carbon ore is one of the only low cost and abundant feedstock with extraction (mining) and transport (rail) infrastructure in place to immediately start production of these materials in quantities to meet the domestic and international emerging markets now and through 2050. PRB coal/carbon ore also has an advantage over other coals in the world in that it has one of the lowest GHG footprints of any US produced coals as shown in the figure below. Producing Wyoming coal for the purpose of making products, results in lowering the GHG footprint of these materials over current products in the markets place. For example, coal/carbon ore can be used to create asphalt binder that has a GHG footprint that is at least 70% lower than conventional asphalt derived from petroleum products.



The National Coal Council published a comprehensive report in 2021 that highlight clean energy, building, chemical, and clean fuel products that can be produced using domestic coal/carbon ore making it a valuable asset in the transition of the economy to a clean energy system and support carbon managed energy systems both in Wyoming and the United States. The report highlights the market size in 2050 and coal required to manufacture these products as shown in the figure below. The NCC predicted that additional mining would need to produce at least 145 million tons to more than 345 million tons of additional coal to meet the demand in 2050. This does not reflect recent efforts to develop processes for new products and enter additional markets. For example, asphalt binder from PRB coal/carbon ore could require an additional 50 million metric tons of coal just to meet the annual growth in the United States alone. This does not take into account the even larger demand in international markets that will also be seeking low GHG alternative binders to conventional petroleum-based binders. This product alone could avoid more than 14 million tons of CO<sub>2</sub>e emissions annually by 2050<sup>1</sup>.

**Figure 1B. Potential Demand for New Coal Production & Employment Associated with Markets for Carbon Products**

Carbon Product	Potential U.S. Coal Industry Requirements - 2050*		U.S. Product Value -2050 (Million \$) *	Employment-2050 (Mfg.)*
	Coal Production (mmt)*	Coal Mining Employment*		
Activated Carbon	22	2,641	15,979	32,437
Carbon Anodes (incl. Aluminum, Li-Ion Battery Anodes)	35	4,257	31,289	63,476
Carbon Black	14.1	1,692	5,077	10,306
Graphite Electrodes/Needle Coke	12.5	1,502	41,315	83,869
Carbon Fiber (incl. CFRP, C-C composites, cement)	47.6	5,713	24,701	50,127
Carbon Nanomaterials (incl. cement)	12.1	1,457	14,125	28,300
Conductive Inks	0.001	1	264	500
Roofing Tile	2	243	7,192	14,500
Aggregate**	100+	15,000+	TBD	100,000+
Foam - Building Mat**	100+	15,000+	TBD	100,000+
<b>Total Carbon Products</b>	<b>145 to 345+</b>	<b>17,500 to 47,500+</b>	<b>139,000 +</b>	<b>280,000 to 480,000+</b>

\* Values reported in 2050 represent a high coal penetration scenario in which carbon-based products made from coal penetrate 80 percent of the overall product market. Additionally, several products (e.g., anodes/electrodes, CF & graphene) represent high demand growth scenarios.

\*\* Data from project estimates with technology developers for large commodity markets

Source: U.S. Department of Energy/Office of Fossil Energy

## Wyoming and PRB Coal/Carbon Ore Role in Developing Products

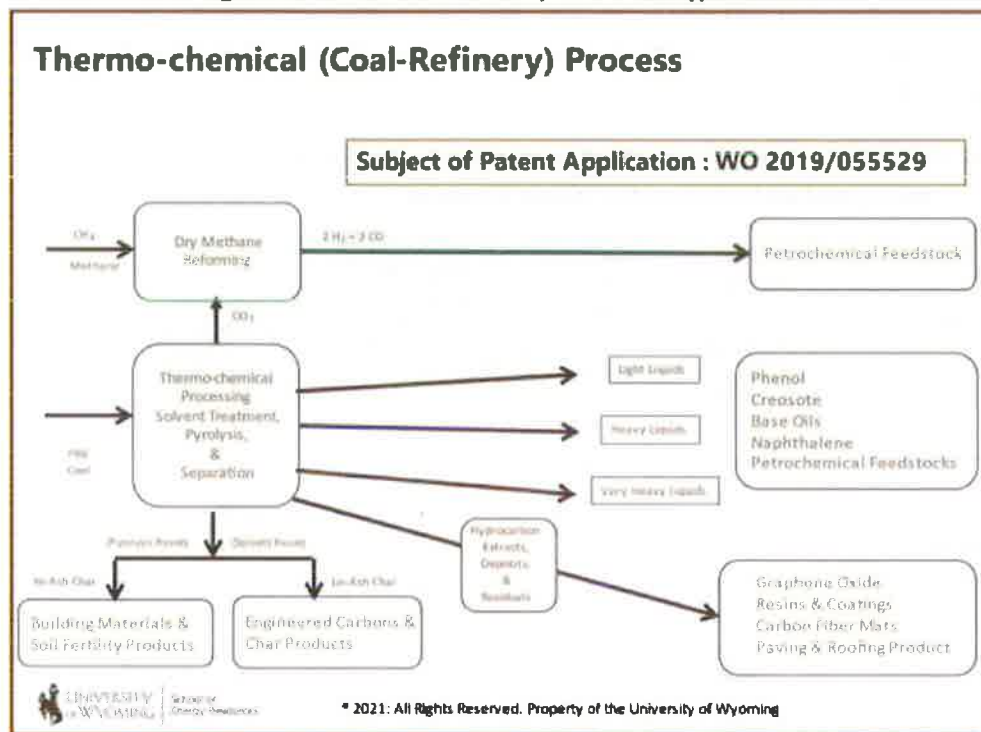
<sup>1</sup> <https://albertainnovates.ca/wp-content/uploads/2021/04/2020-ADI-AI-Asphalt-Binder-Market-Report-FINAL-Public.pdf>



Coupling PRB coal’s environmentally friendly characteristics with manufacturing processes that bind the carbon in the products and in some cases with CCS, make it one of the most environmentally friendly approaches to support the clean energy transition.

The University of Wyoming, with support from the State of Wyoming, is investing in a number of technologies to convert PRB Coal/carbon ore to valuable products with a low GHG footprint via gasification, solvent extraction, and pyrolysis. Some of these processes bind the carbon into the products and/or can be coupled with CCS to keep the GHG footprint low. The figure below shows the different products that PRB coal could be used to produce.

**Figure 2G. Thermo-chemical (Coal Refinery) Process**



**Source: University of Wyoming, School of Energy Resources**

Examples of the types of products from PRB coal/carbon ore and their benefits that will be valuable to a future carbon management energy system, are summarized below.

UW School of Energy Resources (SER) Coal Derived Products Technology Demonstrations: The coal refinery process produces intermediate products that can be used for a multitude of downstream products.

**Asphalt Materials from PRB Coal:** The extract from the process can be used for asphalt binder for paving and roofing products. Currently, 25MM tons of asphalt binder is needed on a yearly basis in the United States. Due to the continued efforts to reduce carbon emissions and stagnate growth in oil and gas production and refining, petroleum asphalt binder has become more difficult to acquire along with increased cost to the asphalt companies. The demand for asphalt binder market is projected to increase by 3.6% per year, compounded annually. By having coal derived asphalt penetrate the current asphalt market by just 10% the amount of coal that would be necessary to produce 2.5MM tons of asphalt binder is 2.94MM tons. The 3.6% CAGR in asphalt binder



consumption means that asphalt binder will require approximately 157% more asphalt binder in the US by 2050. If all this additional binder was supplied by the PRB coal refining process it would demand over 55 million tons of PRB coal a year to supply just the increased market demand.

UW SER is building a field demonstration plant in Gillette to field test the coal asphalt product on a  $\frac{3}{4}$  mile stretch of road in 2026. Once the product has met all the regulatory and performance requirements, the plan is to build a coal refinery to generate enough coal asphalt binder to help the asphalt company meet the growing demand for asphalt product. Product availability is key in this industry with PRB coal reserves being able to pave the entire US roadways for 900 years. The coal derived asphalt is also carbon friendly compared to petroleum derived asphalt. The coal derived asphalt emits 72 kg CO<sub>2</sub>e/ton of product vs petroleum derived asphalt which emits 376 kg CO<sub>2</sub>e/ton of product. Fulfilling the future market demand with PRB coal derived asphalt, in place of asphalt binder from other countries using petroleum derived binder, could avoid over 14 million tons of CO<sub>2</sub>e emissions each year. Further research is showing that using a plant-based oil (such as soybean oil) as part of the binder formula yields a net zero carbon process. At the Peterson Asphalt Conference in July, there was tremendous interest in the coal derived extract from both the asphalt industry and the roofing industry.

Building Materials from PRB Coal: Another intermediate product is coal char. The field demonstration plant in Gillette will have the pyrolysis unit which makes the char up and running by the fall of 2024. The data gathered from this plant will be used for the coal refinery commercial plant design. Using the coal char intermediate product yields several different types of downstream products. While there are a multitude of products being developed with this material, the one closest to commercialization would be the coal char bricks. These bricks are less expensive than the standard clay bricks, they weigh about 1/3 of standard bricks, have a class 'A' fire rating and have lower VOC's being emitted than the clay bricks. The bricks should be ready for the next step to commercialization by summer of 2024. The coal-derived bricks are made using low-energy, eco-friendly process technologies developed in the CCCC. In addition to the char bricks, researchers at UW have developed a multitude of coal-derived building materials, including mortar, plaster, flooring materials, roofing materials, insulation materials and structural units to supplement concrete, timber and steel. These products could require 10's of millions of tons of PRB coal and avoid millions of tons of CO<sub>2</sub>e emissions.

Agricultural Soil Amendment Product Augmented with Wyoming Sourced Nutrient: As part of the Carbon Engineering Initiative (CEI), the CCCC has developed coal-derived soil amendments to provide a new, non-thermal and a potentially high-volume use for Wyoming coal. The PRB coal char is being used as a soil amendment. Since coal is plant based, this is actually an advanced form of bio char. The coal char soil amendments promote increased crop yields, improve soil fertility and retain carbon and moisture in a sustainable way. The soil amendment is currently being evaluated in field trials at two locations: Powell and Torrington. Data shows that the soil amendment improves water retention and reduces nitrogen runoff. The soil amendment is currently being tested for reclamation at Peabody's NARM facility. Using the soil amendment for crop lands in Nebraska, Colorado, Montana (113MM acre) and Wyoming (2.72MM acre) the amount of coal needed is 2.8B tons. Reclamation would make the demand even higher<sup>2</sup>.

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<sup>2</sup> <https://www.uwyo.edu/ser/research/centers-of-excellence/carbon-capture-conversion/soil-amendments.html>

## Utilizing PRB Coal for Hydrogen Production:

Only 1% of the current U.S. hydrogen production is produced by electrolysis, in part due to the lack of electrolyzer production capacity and renewable energy to dedicate to electrolysis. Meeting the goals for clean hydrogen production using only electrolysis and curtailed renewable energy is not feasible in the time frames proposed by the EPA. Using low GHG PRB coal, coupled with improvements in carbon capture technologies to increase their removal efficiency, could meet the low GHG hydrogen standard in the future. Gasification of PRB coal with CCS offers a low-cost pathway to meeting the demand for low-carbon hydrogen from the industrial, power, and transportation sectors as the electrolysis and renewable energy sectors mature. This is a well demonstrated option for hydrogen production as coal gasification presently provides approximately 18% of the total hydrogen in the world and is the second-largest and most cost-effective way of producing hydrogen.<sup>3</sup>

Coal gasification appears to be a significant option for cleaner and more cost-effective generation of energy and other chemical products,<sup>4</sup> where the following advantages come to the forefront compared to the traditional coal combustion processes:

- Coal gasification converts more efficiently the high moisture and ash content of coal into useful outputs<sup>5</sup>
- Coal gasification provides synthesis gas production with high calorific value<sup>6</sup>
- As a result of coal gasification, carbon emissions are considerably decreased<sup>7,8</sup>

Gasification is the only commercial, large-scale option for converting solids into gases,<sup>9</sup> and the cleanest conversion technology for solid fuels. Hydrogen produced from coal-based gasification has recently been shown to be competitive with production from natural gas provided the cost of natural gas remains above US\$4/MMBtu, and the reliability of gasification-based processes can be demonstrated to be high.<sup>10</sup> The cost of producing hydrogen from coal could be reduced by 25–50%, even with the capture and sequestration

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<sup>3</sup> Adnan Midilli, Haydar Kucuk, Muhammed Emin Topal, Ugur Akbulut, Ibrahim Dincer, A comprehensive review on hydrogen production from coal gasification: Challenges and Opportunities, *International Journal of Hydrogen Energy*, Volume 46, Issue 50, 2021, Pages 25385-25412, ISSN 0360-3199, <https://doi.org/10.1016/j.ijhydene.2021.05.088>

<sup>4</sup> Y. Wu, *Impinging streams: fundamentals, properties and applications* (1st ed.), Elsevier Science (2007) <https://doi.org/10.1016/B978-0-444-53037-0.X5026-5>

<sup>5</sup> M. Gräbner *Industrial coal gasification technologies covering baseline and high-ash coal* (1st ed.), Wiley-VCH, Weinheim (2014), 10.1002/9783527336913

<sup>6</sup> J.C. Solarte-Toro, Y. Chacón-Pérez, C.A. Cardona-Alzate Evaluation of biogas and syngas as energy vectors for heat and power generation using lignocellulosic biomass as raw material *Electron J Biotechnol*, 33 (2018), pp. 52-62, 10.1016/j.ejbt.2018.03.005

<sup>7</sup> X. Lu, L. Cao, H. Wang, W. Peng, J. Xing, S. Wang, S. Cai, B. Shen, Q. Yang, C.P. Nielsen, M.B. McElroy, Gasification of coal and biomass as a net carbon-negative power source for environment-friendly electricity generation in China, *Proc Natl Acad Sci Unit States Am*, 116 (17) (2019), pp. 8206-8213, 10.1073/pnas.1812239116

<sup>8</sup> A.B. Rao, P.C. Phadke, CO<sub>2</sub> capture and storage in coal gasification projects, *IOP Conf Ser Earth Environ Sci*, 76 (2017), Article 012011, 10.1088/1755-1315/76/1/012011

<sup>9</sup> N.V. Gnanapragasam & M.A. Rosen, A review of hydrogen production using coal, biomass, and other solid fuels, Pages 725-745 | Received 08 Oct 2015, Accepted 08 Feb 2017, Published online: 28 Mar 2017, <https://doi.org/10.1080/17597269.2017.1302662>

<sup>10</sup> G.J. Stiegel, M. Ramezan, Hydrogen from coal gasification: an economical pathway to a sustainable energy future, *Int J Coal Geol*, 65 (3–4) (2006), pp. 173-190, 10.1016/j.coal.2005.05.002

of CO<sub>2</sub>.<sup>11</sup> Efforts are underway to increase the capture rate from gasification above 95%, which would further reduce the GHG intensity of hydrogen from PRB coal. In addition, hydrogen production technologies, such as chemical looping, could reach carbon capture rates above 99%.<sup>12</sup> The Wyoming Energy Authority is supporting a research project focused on developing chemical looping technology to produce hydrogen and electricity.

The costs of hydrogen production for natural gas and coal/biomass are much lower than for electrolysis (which presently has only a 4% market share) due to the production volume (which is much higher for hydrogen from fossil fuels) and the mature state of the technology. A comparison of efficiencies and costs for various hydrogen production methods<sup>13</sup> shows steam reforming of natural gas to be the most beneficial, with high efficiencies (65 to 75% based on LHV) and low production costs (5 to 8 US\$/GJ). Gasification of biomass and coal has an overall efficiency of 42 to 47% (LHV) with an average production cost at 9 to 13 US\$/GJ, while water electrolysis has the lowest efficiency (35 to 42% HHV) and highest production cost (on average 20 US\$/GJ) see the first figure below.

The DOE predicts that 10 million metric tonnes (MMT) of clean hydrogen will be produced annually by 2030, 20 MMT annually by 2040, and 50 MMT annually by 2050<sup>14</sup>. Assuming that 7.4 million tonnes of coal is required to produce 1 tonne of hydrogen, the amount of coal with CCS necessary to meet the future demand could be 74 million tonnes in 2030, 148 million tonnes in 2040, and 370 million tonnes by 2050<sup>15</sup>. Even if a quarter of that hydrogen production was sourced from PRB coal gasification with CCS we see a huge demand for PRB coal (>>100 million tonnes per year) to meet these clean hydrogen production goals. Wyoming PRB coal is critical to meeting the demand for low-cost low carbon hydrogen both domestically and internationally.

**Thermal Coal Use:** The EIA Annual Energy Outlook predicts that thermal coal use in the U.S. will decline through 2050, but both the EIA and the EPA predict that any coal-fired generating units operating after 2040 will have installed carbon capture and storage technologies and will remain in operation for at least 20-30 years (in order to secure financing) requiring a consistent supply for clean coal reduced carbon electricity generation<sup>16</sup>. Developing countries around the world will either see a steady or increased demand for coal since it is the most reliable, affordable and resilient energy

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<sup>11</sup> N.V. Gnanapragasam & M.A. Rosen, A review of hydrogen production using coal, biomass, and other solid fuels, Pages 725-745 | Received 08 Oct 2015, Accepted 08 Feb 2017, Published online: 28 Mar 2017, <https://doi.org/10.1080/17597269.2017.1302662>

<sup>12</sup> Sanjay Mukherjee†, Prashant Kumar\*†, Ali Hosseini‡, Aidong Yang§||, and Paul Fennell, Comparative Assessment of Gasification Based Coal Power Plants with Various CO<sub>2</sub> Capture Technologies Producing Electricity and Hydrogen, Energy Fuels ACS 2014, 28, 2, 1028-1040 - <https://pubs.acs.org/doi/full/10.1021/ef4024299>

<sup>13</sup> Shoko E, McLellan B, da Costa D. Hydrogen from coal: Production and utilization technologies. Int J Coal Geol. 2006;65:213–222

<sup>14</sup> <https://liftonn.energy.gov/wp-content/uploads/2023/05/20230523-Pathways-to-Commercial-Liftonn-Clean-Hydrogen.pdf>

<sup>15</sup> <https://www.nrel.gov/docs/fy09osti/42773.pdf>

<sup>16</sup> <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>

source available to support their access to clean affordable energy<sup>17</sup><sup>18</sup>. Recent analyses show that under several different policy scenarios, the global demand for coal either remains steady or grows, fueled by the demand for low-cost reliable energy for developing countries, specifically in Southeast Asia<sup>19</sup>. Global demand for clean low GHG coals, such as PRB coal, will become an opportunity to supply these developing countries to fuel their economies while also supporting the deployment of carbon capture and storage (CCS) technologies. Coal can be used in an environmentally responsible manner when CCS is deployed throughout the world, significantly reducing carbon dioxide emissions and reducing other pollutants associated with its use. Limiting the mining of PRB coal will result in dirtier international coals with higher GHG footprints and sulfur contents to meet the market demands.

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<sup>17</sup> <https://www.rff.org/publications/reports/global-energy-outlook-2023/>

<sup>18</sup> <https://www.spglobal.com/en/research-insights/featured/special-editorial/energy-transition-thermal-coal-will-remain-important-in-asia-pacific>

<sup>19</sup> [External-Thermal-Coal-Price-Forecasts.pdf \(whitehavencoal.com.au\)](#)

**Attachment #10**  
**Comments submitted by Wyoming Governor Mark Gordon**  
**Buffalo RMP Amendment SEIS: DOI-BLM-WY-P070-2022-0115-RMP-EIS dated August 3, 2023**



August 3, 2023

Thomas Bills, Project Manager  
BLM Buffalo Field Office  
1425 Fort Street  
Buffalo, WY 82834

Re: Buffalo RMP Amendment SEIS: DOI-BLM-WY-P070-2022-0115-RMP-EIS

Dear Mr. Bills,

Thank you for the opportunity to submit comments pertaining to the Bureau of Land Management's (BLM) Buffalo Field Office: Draft Supplemental Environmental Impact Statement (SEIS) and Potential Resource Management Plan (RMP). The U.S. District Court of Montana ordered the BLM to conduct new coal screening and National Environmental Policy Act (NEPA) analysis that considers no leasing and limited coal leasing alternatives, and disclose the public health impact, both climate and non-climate, of burning fossil fuels from the planning areas for the Buffalo RMP. Wyoming appreciates the BLM's engagement with the State of Wyoming and local governments to complete this task.

Over my numerous comments to the BLM regarding federal coal in Wyoming's Powder River Basin (PRB), I have stated that it is not in the public interest to decrease the amount available for leasing whether it be by acreage, or in this case, volume. Wyoming produced 244.3 million tons of coal in 2022, of which 80 percent of our federal coal is produced in the PRB. We are the top low-sulfur compliance coal producing state in the nation. In 2021, the financial contribution of this coal to both state and local governments was nearly \$480 million, paid in the form of taxes, royalties, and fees. Since 2003, approximately \$4.5 billion has been paid in bonus bids to the federal and state governments. Wyoming's share is used to fund K-12 schools, community colleges, highways and roads, mental health programs, law enforcement, and the University of Wyoming. Due to Wyoming's small population and rural nature, this funding is essential to maintaining these public services. These alternatives inherently and disproportionately impact Wyoming, especially the counties and communities physically and economically intertwined with PRB coal production.

As I mentioned, the PRB's Coal Development Potential Area (CDPA) continues to be whittled away by antagonistic administrations and incessant lawsuits. First, the BLM looked to reduce the

CDPA acreage. Now, it has changed the screening process to limit the volume of leasable coal. The federal government persists in forcing state and local governments, counties, communities, industries, and the businesses that support them all to accept their unpopular mandates. This fact is even recognized in the SEIS “Relationship to State and Local Plans” by the BLM’s statement that, “The no-leasing and limited-leasing alternatives are not consistent with the 2022 Campbell County Natural Resource Land Use Plan.” The two alternatives listed here are identified as the BLM’s co-preferred alternatives and both involve the further restriction of federal coal leasing. Dismissing local land use plans with one sentence shows an inadequate cooperative process that appears to be politically driven. This matter will be further explored during the Governor’s Consistency Review. Following the last iteration of the Buffalo Coal RMP which withdrew acreage from the Federal Mineral leasing Area, any alternative with additional limitations based on volume is inappropriate and not a part of the most recent court order.

In addition, the volume given by the BLM for its limited-leasing alternative is based on the estimated minimum amount of coal that the Energy Information Administration (EIA) forecasts would be needed by the next planning period ending in 2038. Taking the minimum extent of this range seems arbitrary, and not based on any additional analysis, environmental, economic, social, or otherwise. Many local cooperating agencies on this SEIS, my office included, raised these concerns during the review process and ask it be addressed before the final Record of Decision. No matter the alternative chosen, the BLM must still review any lease application and permit additional mining activities. Artificially constraining the total volume allowed to be leased during this time period ties the hands of the BLM and industry alike into the future.

While the BLM was ordered to analyze downstream climate and non-climate impacts, it was given a rushed timeframe that leaves the door open to include any and every negative climate and environmental justice analyses, while not allowing a great many other impacts to be a part of the larger discussion and final decision. The “Issues Considered but Not Analyzed Further” described emission control technologies and substitution analysis as being outside of the scope of this SEIS. Analysis is allowed based on market and environmental forecast models, only when it serves the purpose of diminishing the amount of coal approved to be leased. The significance of grid reliability, substitution of PRB product, emission control technologies, non-thermal coal uses, and the socioeconomic analysis area, all matters within the scope of the court order, are all bypassed in favor of findings bent towards lower amounts of potentially leasable coal.

No consideration is given to the importance of reliable 24-hour dispatchable power, especially to communities that may find themselves under the BLM’s definition of “environmental justice.” Recent winter storms and summer heat waves have drawn considerable attention to the importance of dependable electric grids. Table 3-33 in the SEIS uses “Air-Pollution-Related



Health Effects of Electricity Generation in Europe by Primary Energy Source” and claims 6.12-98 deaths per terawatt/hour. However, the *Nature Medicine* journal estimated that 61,672 people died of heat-related causes across thirty-five European nations during the summer of 2022.<sup>1</sup> These impacts are felt more heavily by the elderly and the impoverished. Dismissing the fact that both of these models are based in Europe, without the availability of affordable, reliable energy, these already economically and health challenged communities, even in the United States, will continue to be left behind and suffer higher risks.

Only coal from the PRB is being analyzed for any downstream impact in this document, but there is no discussion around the fact that coal will continue to be used globally, regardless of if this Administration is successful in eliminating federal leasing from this area. PRB coal is proven to be low-sulfur and burned with fewer emissions than other sources. The U.S. and the world requires more energy going forward, not less. Any decrease in mining from the PRB will be made up for from regions that do not have the environmental standards, good mineland reclamation reputations, and low-sulfur qualities that we enjoy in Wyoming. According to the EIA, in 2022, coal provided approximately 19.5 percent of the nation’s electricity and about 34 percent of the world’s electricity. To single out the PRB in this process while extrapolating climate deaths on a separate continent decades from now is intellectually and scientifically dishonest and improper.

The coal from the PRB itself is not the negative issue this SEIS paints it to be. The State of Wyoming is a leader in the advancement of Carbon Capture, Utilization, and Storage (CCUS) development. Emission mitigation technology is completely ignored in this analysis, which is unjustifiable when models and projections are used for coal production out to 2048. Even though the time-frames in their proposed rule are impossible, the Biden Administration has recognized that CCUS is a commercially available technology and could capture 90 percent of the CO2 from coal-fired power plants while reducing other criteria pollutants. One does not need to look further than the Integrated Test Center located in the PRB to see the work being done locally, in this very arena.

The Western Governors Association, of which I serve as Chair, began an initiative which, “will examine how CCUS technologies, including Direct Air Capture, can position western states at the forefront of emerging carbon markets and reduce the effects of carbon emissions on the environment.” This bipartisan initiative encompasses nineteen states and three territories, many of which are downstream recipients of PRB coal scrutinized in this SEIS. Since the entire

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<sup>1</sup> Ballester, J., Quijal-Zamorano, M., Méndez Turrubiates, R.F. *et al.* Heat-related mortality in Europe during the summer of 2022. *Nat Med* 29, 1857–1866 (2023).  
<https://doi.org/10.1038/s41591-023-02419-z>



volume of coal in the PRB can be analyzed into perpetuity in this document, there must be consideration of the regional and national support to advance these capabilities.

The BLM's approach also neglects to account for any coal that may be extracted for purposes other than thermal. Earlier this year, this Administration's Department of Energy's Office of Fossil Energy and Carbon Management announced \$6 million to develop useful products from coal and coal wastes. Their February 16, 2023 press release noted, "Coal's unique structure and composition make it well-suited for use as a raw material for producing various high-value carbon products like carbon nano-materials, activated carbons, and graphite, which may be used for computer memory devices, LED lighting, solar photovoltaic cells, batteries, capacitors, sorbents, catalysts, membranes, and medical imaging."<sup>2</sup> Again, artificially limiting the volume of coal allowed to be leased will prevent any additional uses of coal to be explored beyond what is deemed by the EIA to be minimum demand.

There will be a significant socioeconomic impact to counties outside the CDPA. However, this is also regarded as beyond the scope of this SEIS. Johnson County's scoping comments show concern for the economic well-being of their residents due to the closing or limiting of fossil fuel development. In the BLM's response, they note that the county is not within the physical CDPA area, so only the oil and gas production being analyzed would pertain to them, and they are not changing its RMP allocation.

This raises two important issues. First, if the BLM deems the court is not requiring them to change RMP allocations for oil and gas, then why are they also choosing to change the RMP allocations for coal? The court order was to consider additional alternatives, and disclose additional analysis. According to the BLM, this can be accomplished without the need for allocation changes and coal leasing should be given the same treatment.

Second, Johnson County, as well as Sheridan, Natrona, Weston, Crook, and others, are left out of the Buffalo Field Office's Local Socioeconomic Analysis Area. Miners rarely live within the CDPA boundary and commute from many of the surrounding communities. There are more counties, towns, and jobs impacted than are analyzed here which will suffer from the direct, indirect and induced effects that are listed in Chapter 3. Revenues listed for Wyoming, Campbell, and Converse Counties frequently compared 2015 and 2021 numbers as proof that the coal industry in the PRB is in decline. While coal production hit an all-time high in 2008, 2015 was one of the best years among the last 50 in the state. On the other hand, 2021 was amidst COVID-19 and reeling economies across the globe. Selecting these dates while omitting other

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<sup>2</sup> <https://www.energy.gov/fecm/articles/doe-invests-6-million-develop-useful-products-coal-and-coal-wastes-support-clean>

regions is disingenuous and only exacerbates concerns that the BLM is cherry picking its data to further curtail the coal industry.

The use of the Biden Administration's Interagency Working Group on the Social Cost of Greenhouse Gases' (IWG) latest estimates regarding the "Social Cost of Carbon" in this analysis illustrates yet another example of the federal government solely considering information which leads to its predetermined desired outcome. Its use in the context of this RMP amendment is premature, beyond the scope of the EIS and lacks legal and scientific support. For example, the cost per ton of CO2 has ranged in recent years from \$1 to \$340. The estimates are politically driven and not based on any sort of scientific certainty. This arbitrary figure is difficult to rectify when compared to the very real budgets of the families of Wyoming's miners struggling to pay their bills and the State's ability to provide services that are currently paid for by mineral royalties. This also affects families across America struggling to pay ever increasing energy costs.

Along with my staff, state agencies, impacted counties, local communities, researchers, and industry have provided comments during the BLM Buffalo Field Office's cooperative agency and public meetings. Also included with this letter are comments from the Wyoming Department of Environmental Quality.

Thank you for your consideration of these comments and the State of Wyoming as the BLM moves forward in the SEIS process. Please contact Nolan Rap in my office if you have any questions: [nolan.rap@wyo.gov](mailto:nolan.rap@wyo.gov) or 307-777-7521.

Sincerely,



Mark Gordon  
Governor

MG:nr:kh



# Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.*



Mark Gordon, Governor

Todd Parfitt, Director

August 1, 2023

Mr. Todd D. Yeager  
Buffalo Field Manager  
RMP SEIS Project Manager  
Buffalo Field Office  
1425 Fort Street  
Buffalo WY, 82834

Mr. Tom Bills  
RMP SEIS Project Manager  
Buffalo Field Office  
1425 Fort Street  
Buffalo WY, 82834

**RE: Buffalo Resource Management Plan Draft Supplemental Environmental Impact Statement (SEIS) for the 2015 Buffalo Field Office Approved Resource Management Plan, 83 Fed. Reg. 61165 (November 28, 2018) (Federal Register/Vol.88, No. 88/Monday, May 8, 2023/Notices/Page 29691)**

Dear Mr. Yeager and Mr. Bills:

Thank you for the opportunity to comment on the Bureau of Land Management (BLM) Draft Supplemental Environmental Impact Statement (DSEIS) and potential amendment to the approved 2015 Buffalo Field Office Resource Management Plan (RMP). Please find the Wyoming Department of Environmental Quality (WDEQ) comments to the SEIS below.

Thermal Coal, Leasing, and Use:

According to BLM, federal coal produced from the Powder River Basin in Wyoming and Montana accounts for over 85 percent of all federal coal production. The BLM Buffalo and Casper Field Office(s) administer approximately 4.7-million acres of subsurface federal mineral estate in Campbell, Converse, Johnson, and Sheridan Counties in north-central Wyoming. The coal is produced from within the Coal Development Potential Area (CDPA). The CDPA is a defined mineral resource boundary in which coal has been established as the primary resource for development. The coal sale and recovery within the CDPA is governed under the Federal Mineral Leasing Act of 1920 (FMLA) as amended for the benefit of the public.

The DSEIS proposed coal screening process and analysis as drafted within the DSEIS is fatally flawed. The DSEIS proposed process fails to take into account the requirements as set forth in the Federal Mineral Leasing Act of 1920 (FMLA) as amended, the Federal Land Management Policy Act

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of 1976 (FLPMA) as amended, the Mining and Mineral Policy of 1970, and the Fair Market Value Policy for Leasing Federal Coal of 1984. As written, the DSEIS fails to detail a separate Alternative Action to remove the CDPA boundary, coal acreage, and surface acreage through a formal mineral withdrawal prior to initiating a No Leasing (Alternative A) or Limited Leasing (Alternative C) alternative.

As proposed the No leasing (Alternative A) and Limited Leasing (Alternative C) allow the BLM to prioritize the non-use or limited use of public lands and minerals within a defined mineral resource boundary without conducting the required mineral withdrawal. The FMLA and FLPMA as amended, obligate the BLM to recognize, facilitate, and prioritize mineral development on BLM-managed lands and minerals within the CDPA for the purpose of generating revenue for the public interest. This is of particular importance when considering mineral withdrawals within a BLM defined mineral resource boundary, such as the Powder River Basin CDPA. As the state agency with primary regulatory authority over mining activities in the State of Wyoming, DEQ is concerned that Alternatives A and C as proposed exceed BLM's statutory authority under other controlling federal law.

The BLM's decision to change the preferred No Action (Alternative B) to a new co-preferred alternative(s) Alternatives A and C, effectively act as an arbitrary mineral and land withdrawal. In proposing to withdraw lands through the RMP DSEIS, BLM has effectively sidestep the required mineral withdrawal process. The DSEIS Alternatives should have included an evaluation and process for the mineral withdrawal of the coal and surface estate within the CDPA first, and then an evaluation and alternative for No or Limited leasing actions within the RMP. BLM has chosen to ignore the required formal mineral withdrawal process. BLM has effectively proposed through the DSEIS Alternatives A and C a defacto mineral withdrawal without conducting the formal mineral withdrawal process and notification of this action to the public.

In the event the BLM elects to move forward without addressing the required mineral withdrawal process, Alternative A should be removed, and Alternative C should be revised. The state recognizes the need and value in having a diverse energy production portfolio. The compliance coal (low in SO<sub>2</sub>) produced in Wyoming is available to power the nation's need for baseload thermal energy production. Even under the most aggressive energy transition predictions, the need for thermal coal baseload power will continue well into the 2040 to 2050 timeframe. Therefore, Alternative C is deficient in only evaluating and providing 10 years of projected coal development. Alternative C effectively "kicks the can down the road" to the next RMP required review and does not address the need to provide the nation with a reliable and affordable fuel for required dispatchable baseload thermal power production. The BLM analysis relies on only one source of data to support Alternative C. The BLM used the Energy Information Administration (EIA) data to forecast a 10 year limited projected demand for coal. The BLM should have relied on multiple sources and based Alternative C on a 20 year minimum leasing alternative that included historical leasing volumes in the CDPA.

#### Carbon Capture:

The DSEIS ignores the fact that coal is not the issue at hand, the release of CO<sub>2</sub> is the issue to be resolved. The Draft SEIS fails to incorporate an adequate discussion and analysis on Carbon Capture Utilization and Storage (CCUS). Advances in carbon capture and storage technologies make PRB coal even more environmentally protective and beneficial. The Administration has recognized in its proposed greenhouse gas emission standards for fossil-fuel fired electric generating units that CCUS is a commercially available technology for the mitigation of carbon dioxide emissions from

coal-fired power plants and could capture up to 90 percent of the CO<sub>2</sub> from these facilities while reducing other criteria pollutants (see 88 Fed Reg 33240 (May 23, 2023)). The DSEIS also fails to include in its analysis a discussion of the 45Q and Carbon-Safe programs. The DSEIS is deficient and inadequately address the complete and critical role of CCUS.

Non-Thermal Coal Uses:

BLM assumes coal for this DSEIS will only be used for thermal power production. The DSEIS fails to adequately address the use of coal as a feedstock to produce many materials and other products needed and of national-security value. For example, PRB federal coal seams are currently being evaluated as a source for rare earth elements and critical minerals needed for energy technologies such as wind turbines and batteries. Materials in or associated with coal can also be used for advanced technology industries such as battery production, solar panel production, and aerospace technologies (among other advanced manufacturing sectors). BLM does discuss these alternative uses within the DSEIS, however, the analysis conducted is brief and incomplete.

Conclusion:

The DEIS fails to meet the requirements for a formal mineral withdrawal of a CDPA, which should have been addressed first. Therefore, the only alternative that can move forward is Alternative B, “No Action”. The BLM does not have the authority to sidestep the formal mineral withdrawal process through the RMP DSEIS process within the CDPA. Further evaluation of CCUS and non-thermal coal uses needs to be developed and included in the DEIS. The public should have the opportunity for full disclosure and review of all relevant facts related to the Alternatives proposed in the DSEIS.

In summary, the DEIS process should be pulled back and restarted only after meeting all procedural requirements.

Sincerely,



Todd Parfitt  
Director  
Wyoming Department of Environmental Quality

cc: Randall Luthi, Wyoming Chief Energy Advisor  
Kyle J. Wendtland, LQD Administrator

**Attachment #11**  
**WDEQ Non-Discrimination and Inclusion Policy dated July 10, 2023**

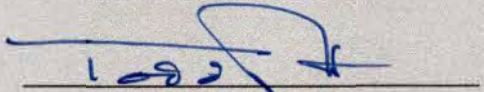


**WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
DEPARTMENT POLICY**

DATE: July 10, 2023

Policy #32

SUBJECT: NON-DISCRIMINATION AND  
INCLUSION

  
\_\_\_\_\_  
Director

## **OVERVIEW**

Title VI of the federal Civil Rights Act of 1964 requires each state agency administering a continuing program which receives federal financial assistance to adhere to its provisions. These programs must ensure that no person, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any federal program or activity receiving federal financial assistance. Wyoming has supported and enforced, and will continue to support and enforce, the provisions of the federal Civil Rights Act of 1964.

The WDEQ, in consultation with the Wyoming Attorney General's Office, conducted a review of its non-discrimination and inclusion policy, and found that this policy is in compliance with state and federal laws. The following items constitute the Wyoming Department of Environmental Quality's (WDEQ's) non-discrimination guidance and complies with the Governor's Executive Order 2000-4.

## **NON-DISCRIMINATION COORDINATOR**

Designation of a Non-discrimination Coordinator:

Activities required of this position are delegated by the Director and identified on the WDEQ website at <https://deq.wyoming.gov/nondiscrimination-policy/>. WDEQ's Management Services Administrator is WDEQ's designated Non-discrimination Coordinator and can be reached by phone at: 307-777-7198

- Grievance Procedures – A link to a non-discrimination complaint form is available on the WDEQ website as indicated above. Individuals or entities who feel they have been subject to discrimination, as defined, may complete and submit this form. This form is automatically submitted to the Non-discrimination Coordinator. With the assistance of the Wyoming Attorney General's Office, the Non-discrimination Coordinator will receive, review, make a judgment, and effectuate any necessary actions on all grievances submitted in a timely manner. A written notice will be provided to the claimant regarding the agency's determination and actions taken.
- Non-discrimination policy statement – A statement has been included on the WDEQ website stating that WDEQ complies with Title VI of the Civil Rights Act of 1964.

- Non-discrimination posters – The WDEQ has printed and installed posters at its headquarters and field offices. These posters provide the WDEQ’s non-discrimination policy in English and Spanish and are placed in a prominent location for public access and viewing.

### **LIMITED ENGLISH PROFICIENCY**

- It has been determined, as of the date of this policy, that no ZIP code in Wyoming has a significant population of a Limited English Proficiency (LEP) population which speaks a language other than Spanish. With the introduction of a Spanish translator function on the WDEQ website, use of the DEQ Screen Mapping Tool is at the discretion of the Administrator of each respective WDEQ Division, in consultation with the Non-discrimination Coordinator.
- Spanish translator – A function is incorporated on the WDEQ website to allow individuals to translate website content and all public notifications. All public notices will include a Spanish translator link.
- Spanish notification on printed notices – All notices required to be placed in a newspaper of general circulation shall include a short statement, in Spanish, directing individuals with LEP to the WDEQ website for further information and a description of how to access the google translator found on the website.
- For all public notices, whether placed in a newspaper or by written publication, the following language shall be included:
  - **Para español, visite [deq.wyoming.gov](http://deq.wyoming.gov).** *Americans with Disabilities Act: special assistance or alternative formats will be made available upon request for individuals with disabilities. Please provide at least fourteen (14) days before the close of the public comment period for such requests.*

### **SMALL AND SPECIAL FOCUS COMMUNITIES**

- Small and special focus communities are defined by meeting one or more of the following five (5) criteria:
  1. Population of 10,000 or less and with an annual median household income (AMHI) lower than the state AMHI, or
  2. Population of 3,300 or less; or
  3. Communities with an annual median household income (AMHI) of ninety percent (90%) or less than the state AMHI as established by the most recently released American Community Survey 5-year estimates; or
  4. Communities whose unemployment rate is greater than the state unemployment rate as published by the Wyoming Department of Workforce Services; or
  5. Communities that lost population since the previous census report.



- *Communities deemed small and special focus are located on a WDEQ GIS map that Administrators can refer to [\(WDEQ SPECIAL FOCUS MAP \(wyo.gov\)\)](#).*
- *Where financial resources are available, the WDEQ may provide additional technical support to assist small and special focus communities applying for those financial resources.*

### **SCREENING AND MAPPING TOOLS**

- *WDEQ incorporates the use of its Special focus Mapping tool if there is reason to believe that additional outreach may be necessary for permitting. Staff should capture and save the screen shot for any search through the WDEQ Small and Special Focus GIS Map in the files for the project being searched regardless on the result.*
- *WDEQ incorporates the optional use of the U.S. Environmental Protection Agency's EJ Screening and Mapping Tool if the administrator and the director believe additional information may be beneficial. To access the tool:*
  - *Go to <https://ejscreen.epa.gov/mapper/>*

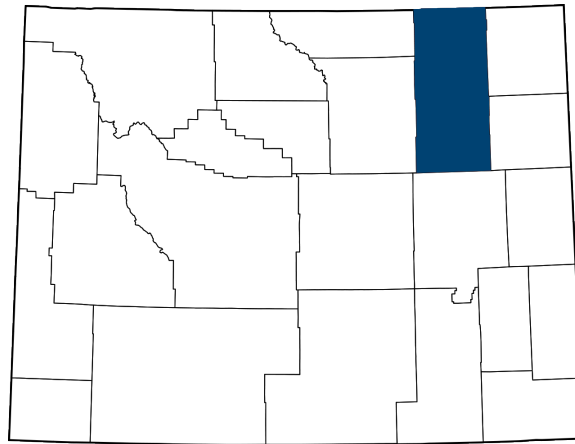
### **ADMINISTRATORS**

- *Administrators shall base all remediation, reclamation and permitting decisions on the risk to human health and the environment utilizing standards identified in Wyoming statute, rule and state guidance.*

*The policy and website will be reviewed and revised as appropriate.*

**Attachment #12**  
**Campbell County Socioeconomic Profile dated April of 2017**

# A Campbell County Profile: Socioeconomics



## **Campbell County Board of County Commissioners**

Rusty Bell, Chair  
Mark Christensen  
Matt Avery  
Micky Shober  
Clark Kissack

The goal of this document is to provide an accurate picture of Campbell County's socioeconomic attributes. Accomplishing this requires verifiable and universally accepted substantive data that is objectively incorporated into a narrative format.

Those requirements provide the foundation for this document. The resulting document not only serves the county as it moves forward with its own educational and planning efforts, but also serves to inform state and federal educational and planning efforts as well.

*This socioeconomic profile of Campbell County is made possible  
with the collaborative support of:*



UNIVERSITY  
OF WYOMING  
EXTENSION



Wyoming County  
Commissioners  
Association

# INTRODUCTION

In a rapidly changing world, timely and accurate information is essential to good decision making. Local officials, state government, federal agencies, and the general public need information on the structure and trends within a region's economy in order to more effectively conduct and participate in public policy decision making processes. Information describing regional economic conditions can aid in the public policy decision making process by providing a perspective on economic structure and changes over time. In addition, the identification of long-term trends can help residents, local official, state government, and federal agencies plan for the future. This report has been developed to provide baseline information on the structure and trends of the Campbell County economy.

Four types of information are discussed in this report, including: 1) Demographics, 2) Land Characteristics, 3) County Government Finances, and 4) Natural Resource Based Industry Profiles. The Demographic section provides information on the characteristics of the residents of county. The Land Characteristic section provides a perspective on the physical setting of the county. The County Government Finances section considers county government's ability to meet the needs of residents in terms of public services and public infrastructure. The Industry profile section discusses the economic importance of natural resource based industries in the county.

Each type of information is discussed separately in the report. To put Campbell County's information in perspective, the county data is compared to corresponding data for Wyoming and the United States. A variety of data sources were used to development this socio-economic profile including the Wyoming Department of Administration & Information – Economic Analysis Division's Wyoming County Profiles. The most current data available from these data sources was used in the report. All time series data involving dollars were adjusted for inflation to 2009 dollars since these deflators are latest that are currently available. This report is part of an ongoing cooperative effort between the University of Wyoming, the Wyoming County Commissioners Association, and the Wyoming Department of Administration and Information to develop a socio-economic database for Wyoming Counties. Due to lags in the availability of current county-level data, this profile does not include information on the relatively recent declines in the oil, gas, and coal industry in Campbell County.

# **COUNTY SUMMARY**

## Demographics

Campbell County experienced significant population growth between 2000 and 2015, increasing from 33,979 residents in 2000 to 49,220 residents in 2015 (+45 percent). The county's population growth rate was 2.4 times the Wyoming growth rate (19 percent) and 3.2 times the U.S. growth rate (14 percent) between 2000 and 2015. More than 76 percent of the county's population growth occurred from 2000 through 2009 when the average annual rate of growth was 3.4 percent. Since 2009, the county's average annual population growth rate has slowed, declining by 60 percent to 1.3 percent per year. Recently released Census data indicates that the county's population declined by 1 percent between 2015 and 2016.

Population increases can occur in one of two ways: 1) Natural Increase (more births than deaths) or 2) Net In-Migration (more people moving in than moving out). Between 2000 and 2015 Campbell County experienced substantial increase from both types of population growth. The county's population growth from net in-migration (23 percent) was 2.6 times the growth from net in-migration for Wyoming (9 percent) and 4.0 times the growth from net in-migration for the U.S. (6 percent). Much of this net in-migration was probably due to the growth in employment opportunities in the county during this time period. Due to the relative young age of the county's population, the county also experienced substantial population increase from natural increase. The younger age of county residents results in more births and less deaths. In fact, in 2015 Campbell County had the highest birth rate in the state with 16.2 births per 1,000 population. This birth rate was 23 percent above the state average in 2015. The county's population growth rate from natural increase (22%) was 2.2 times the growth from natural increase for Wyoming (10 percent) and 2.7 times the growth from natural increase for the U.S. (8 percent). Overall, the total population increase for the county from 2000 through 2015 was about one-half from net in-migration and one-half from natural increase. This ratio was similar to that for the population growth in Wyoming. However, for the U.S. 60 percent of the population growth came from natural increase with 40 percent coming from net in-migration. The percent of population increases from net in-migration would be expected to be lower at the national level due to greater restrictions on immigration. Recently released Census data indicates that between 2015 and 2016 county population growth from natural increase was +434 but county net in-migration was -996 resulting in a net population loss of 1 percent.

People move to an area for a variety of reasons ranging from economic to aesthetic. Data from the Wyoming Housing Database Partnership for 2000 through 2016 indicates that the most frequent reason given by new residents to Campbell County for moving to Wyoming were job related factors (65 percent). Job related factors included Job Transfers, New Jobs, Better Employment Opportunities, and Starting or Expanding a Business. The second most frequent reason was that friends or relatives already resided in the area (15 percent). Less than four percent of new residents surveyed indicated that a better quality of life was the primary reason for moving to the county with 16 percent indicating some other reason. This data is from the Housing Needs Assessment Survey conducted by the Wyoming Housing Database Partnership in cooperation with the Wyoming Department of Transportation. The

survey results are based on a random sample of new residents who were exchanging their previous state's driver's licenses for Wyoming licenses.

In 2015 the largest age groups for Campbell County were adults 25 to 44 years old (30 percent) and adults 45 to 64 years old (26 percent). Combined, these two age groups represented 56 percent of the total county population. The next largest age group was youth 5 to 17 (20 percent), followed by young adults 18 to 24 (9 percent), youth under 5 (8 percent) and lastly retirement aged adults 65 and over (7 percent). The population distribution for the county was over represented at the lower ends of the age spectrum and under represented at the upper ends of the age spectrum relative to Wyoming and the U.S. Compared to Wyoming and the U.S., the county had a higher proportion of its overall population in the younger age groups of Under 5 and 5 to 17. The county also had a higher proportion of its overall population in the adults 25 to 44 age group. However, the proportion of the county's population in the 18 to 24 age group was less than Wyoming and the U.S. On the other end of the age spectrum, the county had a lower proportion of its overall population in the older age groups of 45 to 65 and 65 and over, especially the 65 and over age category which was 48 percent lower than Wyoming and 50 percent lower than the U.S. Overall, the median age for the county in 2014 (32.9 years) was 11 percent younger than the median age for Wyoming (36.9 years) and 13 percent younger than the median age for the U.S. (37.8 years). Given the relatively high proportion of the county's residents in the younger age groups, the county's population is likely to continue to remain relatively younger over time.

White is the predominate category of race in Campbell County, accounting for 95 percent of the total population. The percentage of the population that is White in the county is 2 percent higher than the percentage for Wyoming (93 percent) and 17 percent higher than the percentage for the U.S. (78 percent). The other five races identified by the federal government account for the remaining 5 percent with Two or More Races being the most common (2.0 percent), followed by Native American (1.6 percent), Black (0.8 percent), Asian (0.6 percent), and Pacific Islanders (0.1 percent). The proportion of the county's population that was Black (0.8 percent versus 1.4 percent and 13.0 percent), Asian (0.6 percent versus 1.0 percent and 4.9 percent), Pacific Islander (0.1 percent versus 0.1 percent and 0.2 percent), or Two or More Races (2.0 percent versus 2.1 percent and 2.3 percent) was less than either Wyoming or the U.S. The proportion of the county's population that was Native American was less than Wyoming but higher than the U.S. (1.6 percent versus 2.7 percent versus 1.2 percent).

The federal government defines the term "Hispanic" as an ethnicity rather than a specific race. Thus Hispanics can be individuals of any race that self-identify themselves as "Hispanic" or "Latino" based on heritage, nationality group, lineage, or country of birth of the person or person's parents or ancestors before their arrival in the United States. In Campbell County, the percentage of the population classifying themselves as Hispanic (9 percent) was 51 percent less than the U.S. percentage (18 percent) and 13 percent less than the Wyoming percentage (10 percent).

Per capita income can serve as a general indicator of the economic well-being of a county's population. In 2000, per capita income in Campbell County was \$33,249 in 2009 dollars. The per capita income for the county in 2000 was 6 percent below Wyoming's per capita income (\$35,373) and 11 percent below



the U.S. per capita income (\$37,371). From 2000 to 2015, after adjusting for inflation, per capita income for the county increased by 49 percent to \$49,686. As a result of this increase, in 2015 the county's per capita income was only 2 percent lower than Wyoming's (\$50,984), and 14 percent higher than the U.S. (\$43,739). There are three sources of per capita income: 1) net labor earnings including wages, salaries, and proprietor (self-employed) income, 2) government transfer payments such as Social Security, Medicare, Medicaid, and various income assistance program payments, and 3) investment income representing property income in the form of dividends, interest, and rents. The majority of the growth in the county's per capita income between 2000 and 2015 was the result of growth of net labor earnings (79 percent) with 9 percent coming from increased transfer payments and 12 percent coming from increased investment income. Transfer payments were the fastest growing individual source of per capita income between 2000 and 2015 increasing by 55 percent, while labor earnings increased by 51 percent and investment income increased by 38 percent. In 2000, net labor earnings represented 76 percent of total per capita income, with investment income representing 15 percent, and transfer payments representing 8 percent. In 2015 the distribution of sources of per capita income was essentially unchanged with net labor income represented 77 percent of total per capita income, investment income representing 14 percent, and transfer payments representing 9 percent.

In 2015 per capita income for Campbell County was \$54,654 in 2015 dollars. This level of income was 2 percent below per capita income for Wyoming (\$56,081) and 14 percent above per capita income for the U.S. (\$48,112). Among the three regions, the county had the highest per capita labor earnings (\$42,256) which was 30 percent above per capita labor earnings for Wyoming (\$32,578) and 37 percent above per capita labor earnings for the U.S. (\$30,729). Conversely, the county had the lowest per capita transfer payments (\$4,710) which was 33 percent lower than per capita transfer payments for Wyoming (\$7,061), and 43 percent lower than per capita transfer payments for the U.S. (\$8,334). The county's per capita investment income (\$7,688) was 53 percent below per capita investment income for Wyoming (\$16,442), and 15 percent lower than per capita investment income for the U.S. (\$9,049). The relatively greater importance of labor earnings and the relatively lesser importance of transfer payments and investment income for the county may be a reflection of the younger age of the county's population.

The county's 2015 unemployment rate (3.8 percent) was lower than Wyoming's unemployment rate (4.2 percent) and lower than the U.S. unemployment rate (5.3 percent). While total per capita income for the county was 2 percent below the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2015 was 7 percent above the state average. This difference suggests that, on average, the county's residents were economically slightly worse-off than the rest of the state in 2015. However, the percent of the county's population that was below the poverty level (7 percent) was 29 percent below Wyoming's rate (11 percent) and 44 percent below the U.S. rate (13 percent).

Overall, the educational attainment of Campbell County's adult population in terms of a high school degree or higher (91 percent) was comparable to Wyoming's (92 percent) and higher than the U.S. (87 percent). The county's adult population was somewhat less educated in terms of college or advanced degrees than Wyoming (19 percent vs. 26 percent) and the U.S. (19 percent vs 30 percent). The

percentage of the county population without a high school degree (9 percent) was slightly higher than Wyoming's (8 percent) and lower than the U.S. (13 percent). The percentage of the county's population with a high school degree (34 percent) was much higher than Wyoming's (29 percent) and the U.S. (28 percent). The percentage of the county's population with some college (26 percent) or an associate degree (11 percent) was similar to both Wyoming (27 percent and 10 percent) and the U.S. (21 percent and 8 percent). The percentage of the county's population with either a bachelors (15 percent) or graduate/professional degree (5 percent) was below Wyoming's (17 percent and 9 percent) and the U.S. (18 percent and 11 percent).

In terms of access to educational resources, the county has one public school district with a total of 21 schools and a 2014 fall enrollment of 8,826. The graduation rate for the public school system was 77 percent compared to a state average of 79 percent. The public school system had 656 certified teachers, 152 certified staff, 47 administrators, and 757 classified staff. Total general fund expenditures for the county's public school system was \$125.6 million in 2014 with an operating cost of \$16,420 per average daily membership. This compares with an average operating cost of \$17,229 per average daily membership for the state. Gillette College which is part of the Northern Wyoming Community College District is located in the county

Campbell County experienced significant employment growth between 2000 and 2015. Employment in the county increased by 61 percent from 2000 through 2015 growing from 23,262 jobs in 2000 to 37,491 jobs in 2015. During this time period Wyoming employment increased by 25 percent and the U.S. employment increased by 15 percent. Most of the growth in county employment occurred between 2000 and 2008 with employment peaking at 37,868 jobs in 2008. Since 2008, county employment has been fairly flat. All three regions were negatively affected by 2008-2009 recession. However, the county's employment bottom out later than Wyoming or the U.S. (2011 vs. 2010 vs. 2010) and the county's employment recovered more slowly than Wyoming or the U.S. not exceeding 2008 employment levels until 2014 compared to 2013 for Wyoming and the U.S. County employment then declined between 2014 and 2015 to below 2008 levels. Preliminary Bureau of Labor Statistic data indicates that total county employment declined by 11 percent from September 2015 to September 2016 and by 16 percent from September 2014 to September 2016. Meanwhile, county Natural Resource & Mining employment declined by 24 percent between September 2015 and September 2016 and 33 percent between September 2014 and September 2016.

From 2000 to 2015, employment in Campbell County increased by 61 percent. This increase was 2.4 times the employment increase for Wyoming (25 percent) and 4.1 times the employment increase for the U.S. (15 percent) during the same time period. The county experienced strong growth in both wage and salary employment and self-employed jobs between 2000 and 2015. Of the 61 percent increase in total employment 40 percent was from growth in wage and salary jobs. This compares to 16 percent growth for wage and salary jobs in Wyoming and 6 percent for growth for wage and salary jobs in the U.S. Growth in self-employed jobs in the county was also strong representing 21 percent of the growth between 2000 and 2015 compared to 10 percent for Wyoming and 9 percent of the U.S. Overall, wage and salary jobs accounted for two-thirds of the total job growth in the county between 2000 and 2015

with self-employed jobs accounting for one-third. Self-employment was the fastest growing source of jobs in the county increasing by 2.7 times from 2000 to 2015. Wage and salary jobs had slower growth increasing by 46 percent between 2000 and 2015.

The mining sector (which includes oil and gas for statistical purposes) was the largest source of employment in Campbell County representing 23 percent of total county employment. Following Mining was Local Government (13%), which includes all employment associated with county government, towns and city government in the county, and the county's public school districts. Other major sources of employment were Retail Trade (9 percent), Construction (8 percent), and Accommodations & Food Service (6 percent). Combined these five sectors represent sixty percent of the employment in the county. The Economic Research Service defines a county as mining dependent if 8 percent or more of total county employment is derived from Mining. Campbell County exceeds this threshold by nearly 3 times, indicating a very high dependency on Mining.

The location quotients (LQ), in the fourth column of Figure 12, were used to identify Defining Industries in the county. A location quotient is the ratio of an industry's share of total employment in the region relative to the industry's share of total employment at the national level. A large location quotient is an indication of specialization within the county's economy. Defining Industries are important because they play a significant role in a region's growth over time. The Federal Reserve Bank of Kansas City considers Defining Industries as those with a locational quotient of at least 1.25 that account for at least 0.2 percent of total employment in the region. On this basis Campbell County has six Defining Industries including: Mining (29.61), Utilities (3.28), Local Government (1.73), Agriculture (1.72), Construction (1.63), and Wholesale Trade (1.42). Transportation & Warehousing is close to the definition of a Defining Industry (1.23).

Employment in Campbell County increased by 38 percent from 2001 through 2015. This compares to a 23 percent increase in employment for Wyoming and a 15 percent increase in employment for the U.S. during this time period. The largest increases in employment came from Mining (+2,141 jobs), Local Government (+1,799 jobs), Real Estate, Rental, & Leasing (+1,004 jobs), and Wholesale Trade (+928 jobs). Combined these four sectors represented 57 percent of the total employment growth in the county. On the other hand, one sector lost employment between 2001 and 2015: Forestry, Fishing, and Ag Support (-126 jobs). In terms of individual sectors the fastest growing sectors were private Education Services (+149 percent), Utilities (+141 percent), and Real Estate, Rentals & Leasing (+141 percent).

In addition to the number of jobs, the labor earnings associated with those jobs is an important consideration. Overall average earnings per job are a general measure of the economic well-being of the local workforce. The Campbell County economy has had continuing success with generating relatively high paying jobs. In 2000, the average earnings per job for the county were \$47,480, in 2009 dollars, which was 29 percent above the Wyoming average earnings per job (\$36,862) and only 3 percent below the U.S. average earnings per job (\$48,821). From 2000 through 2015, after adjusting for inflation, county average earnings per job increased by 36 percent to \$64,747. As a result of this increase, 2015 county average earnings per job were 32 percent above the Wyoming average earnings per job (\$48,978) and 22 percent above the U.S. average earnings per job (\$52,936). While county average

earnings per job were 32 percent above the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2014 was 7 percent above the state average. This difference suggests that, on average, the county's workforce was economically substantially better-off than the rest of the state in 2015.

Average earnings per job (AEPJ), which includes benefits, varies substantially by sector. In 2015 AEPJ in Campbell County ranged from over \$129,000 for the Mining sector to nearly -\$3,000 for Agriculture. After Mining, the next highest AEPJ was in the Utilities sector (\$125,874). Following those two sectors, Federal-Civilian, Transportation & Warehousing, Wholesale Trade, and State Government all had AEPJ of more than \$80,000. Local Government and Manufacturing also had AEPJ about the county average (\$71,220). Of the 23 sectors in the county's economy 11 had AEPJ greater than the Wyoming average (\$53,875) and 9 had AEPJ greater than the U.S. average (\$58,228). The 11 sectors with AEPJ greater than the Wyoming and the 9 sectors with AEPJ greater than the U.S. represented 65 percent and 58 percent of the employment in the county. The negative AEPJ for the Agricultural sector was due to the part-time nature of many agricultural operations and a \$12.3 million loss in realized net income for the county's agricultural sector in 2015.

The combination of the number of jobs and the average earnings per job determines the relative importance of individual sectors in terms of total labor earnings in the Campbell County economy. Labor earnings are important because they represent the major source of personal income for county residents. Overall county employment generated \$2.7 billion in labor earnings in 2015. Mining, due to its large number of employees and relatively high average earnings per job, represents 42 percent of total county labor earnings. Following Mining were Local Government (13 percent), and Construction (8 percent). The Economic Research Service defines a county as mining dependent if 13 percent or more of total county labor income is derived from Mining. Campbell County exceeds this threshold by 3.2 times, indicating a very high dependency on Mining.

### **Land Characteristics**

Campbell County contains 3.1 million acres of land. The Federal government manages 12 percent of this land area (364,480 acres). The Forest Service manages 38 percent of the total Federal land in the county, with the BLM managing 62 percent. State land represents 6 percent of the county's land area (185,664 acres). All of the state land in the county is state trust land. Finally, local government owns 0.1 percent of the county's land area (3,712 acres). Fifty-three percent of the local government land is held by the county, with cities holding 33 percent, and school districts/colleges holding 14 percent. Private land is the largest type of landownership in the county accounting 82 percent of the surface area in the county (2.5 million acres). Information from the Wyoming Department of Revenue on acres taxed as agricultural land indicates that 96 percent of the private land in the county is in agricultural use (2.3 million acres). Of this total 96 percent is classified as range land (2.2 million acres), 4 percent is classified as dry cropland (95,732 acres), and less than one percent is classified as irrigated crop land (928 acres).

Federal lands are managed for different purposes under differing statutory authority. Three possible categories of designation are: 1) Protected, 2) Restricted., and 3) General Use. Protected areas include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Water Fowl Protection Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS). Restricted areas include Wilderness Study Areas (NPS, FWS, FS, BLM) and Inventoried Roadless Areas (FS). General Use areas include Public Domain Lands (BLM) and National Forests and Grasslands (FS). This data was obtained from the Economic Profile System – Human Dimension Toolkit (NPS = National Park Service, FWS = Fish and Wildlife, FS = Forest Service, and BLM = Bureau of Land Management). In Campbell County, Economic Profile System data indicates that no federal lands are designated as protected. Meanwhile, 7 percent of federal lands are designated as restricted (26,182 acres) and 93 percent are designated for general use (345,423 acres). In comparison 65 percent of the total federal lands in Wyoming are designated for general use.

## **County Government Finances**

Wyoming Department of Audit information indicates that the total revenue for Campbell County Government was \$118.0 million in FY2016. Of this total, the largest source was Taxes which included property taxes and any optional sales tax revenue (67 percent). Following Taxes was State Aid which included the county's share of the 4 percent sales and use tax revenue (18 percent), Charges for Services (8 percent), and Direct Federal Aid, including PILT payments (4 percent). Combined these four sources represented 97 percent of the total county government revenue in FY2016. Other sources of county government revenue included Other Local Government Revenue and Miscellaneous Revenue. Combined these revenue sources represented 3 percent of the total county government revenue in FY2016.

Compared to all counties in Wyoming, the county had a higher proportion of revenue from Taxes (67 percent vs. 52 percent). The county's proportion of revenue from State Aid was slightly lower relative to all counties in the state (18 percent vs. 24 percent), the proportion from Charges for Services was slightly higher relative to all counties in the state (8 percent vs. 7 percent) and the proportion from Direct Federal Aid was lower relative to all counties in the state (4 percent vs. 6 percent). Other sources of revenue were lower compared to all other counties in the state in terms of Other Local Government (1 percent vs. 4 percent) and Miscellaneous Revenue (2 percent vs. 7 percent). Overall, the county's per capita revenue (\$2,396) was 73 percent above the average for all counties in Wyoming (\$1,384). Between FY2015 and FY2016 total county government revenue declined by 6 percent.

The total assessed valuation for Campbell County in 2016 was \$5.3 billion. Seventy-nine percent of the total valuation was from Mineral Production. Following minerals was Industrial Property (9 percent), Residential Property (5 percent), and Utilities (4 percent). Combined these four sources represented 98 percent of the county's total assessed valuation. Other sources of assessed valuation included Commercial Property (2 percent) and Agricultural Lands (less than 1 percent). Combined these sources represented 2 percent of the county's assessed valuation.

Compared to Wyoming, the county had a much higher proportion of assessed valuation from Mineral Production (80 percent vs. 50 percent). The county's proportion of assessed valuation from Industrial Property was comparable to Wyoming's (9 percent vs. 10 percent). The county's proportion of assessed valuation from Residential Property was much lower than Wyoming's (5 percent vs. 24 percent). The county's assessed valuation from Utilities, Commercial Property and Agricultural land was lower than Wyoming's (7 percent vs. 15 percent). In terms of Mineral Production, coal represented 75 percent of total county mineral assessed valuation, crude oil represented 21 percent of total county mineral assessed valuation, and natural gas represented 4 percent of total county mineral assessed valuation. In terms of Industrial Property, oil and gas extraction (29 percent) and coal mining facilities (66 percent) represented 95 percent of total county industrial property assessed valuation. Overall, oil and gas production and coal mining, the associated production facilities, and the associated transportation infrastructure represented 89 percent of the county's total assessed valuation. County per capita assessed valuation for 2016 was \$107,446 and was 3.0 times the per capita assessed valuation for the state (\$35,715). Between 2015 and 2016 total county assessed valuation declined by 15 percent.

In FY2016 Campbell County's sales and use tax generated \$129.8 million in sales and use tax revenue. Of this total, 55 percent (\$71.4 million) was retained by state government and 45 percent (\$58.4 million) was returned to local governments in the county. In FY2016 county government's share of the returned sales and use tax revenue was approximately \$18.7 million (32 percent) with the remaining \$39.7 million (68 percent) going to municipal governments in the county. Twenty-nine percent of the county's total sales and use tax revenue came from Mining. Following Mining was Retail Trade (22 percent), Wholesale (16 percent), Public Administration (7 percent), Other Services (6 percent), and Finances (6 percent). Combined these six sectors contributed 86 percent of the county's total sales and use tax revenue. Public Administration represents sales and use tax revenue on motor vehicle purchases which are collected at the time of registration in Wyoming. Leisure & Hospitality, Utilities, Manufacturing, and Other combined contribute 14 percent of total county sales and use tax revenue.

Compared to total sales and use tax revenue for Wyoming, the county had a substantially higher proportion of sales and use tax revenue from Mining (29 percent vs. 13 percent). The county's proportion of sales and use tax revenue from Retail Trade was substantially lower than Wyoming's (22 percent vs. 32 percent). The proportion of county sales and use tax revenue from Wholesale Trade was much higher than Wyoming's (16 percent vs. 8 percent) and the proportion from Public Administration was lower compared to Wyoming's (7 percent vs. 10 percent). The proportion of county sales and use tax revenue from Other Services and Financial Activities were both higher than Wyoming's (6 percent vs. 4 percent and 6 percent vs. 5 percent). Between FY2015 and FY2016 total county sales and use tax revenue declined by 31 percent, while Mining sector sales and use tax revenue declined by 46 percent.

The Economic Profile System-Human Dimensions Toolkit indicates that federal land payments to local governments in Campbell County totaled \$1.1 million in FY2015. The largest source of federal land payments to the county was Payment in Lieu of Taxes (PILT) representing 61 percent of the total amount (\$684,330). PILT payments are intended to compensate county governments for non-taxable federal

lands within their borders. It is based on a maximum per-acre payment reduced by other federal revenue sharing payments and subject to a per capita population cap. The second largest source of federal payments to the county was Forest Service payments representing 24 percent of the total amount (\$273,584). Forest Service payments can include 25 Percent Revenue Sharing funds, Secure Rural School & Community Self Determination Act funds, and Bankhead-Jones Forest Grasslands funds. The third largest source of federal payments to the county was BLM Payments representing 14 percent of the total amount (\$161,352). BLM payments represent revenue sharing funds including grazing fees through the Taylor Grazing Act. Of the \$1.1 million in Federal land payments to the county in FY2054, 69 percent went to county government (\$774,715), 6 percent went to grazing districts (\$70,967, with the remaining 24 percent (\$273,584) going to other entities. In FY2015 Federal Land Payments to the county represented \$3.07 per acre of Federal land.

The total cost of maintaining county government for Campbell County in FY2014 was \$93.7 million. This represents a per capita cost of \$1,901 which was 61 percent above the average for all counties in Wyoming (\$1,183). The largest cost categories were Parks/ Recreation/Museum (10 percent), Construction (9 percent), Jail (9 percent), Social Services (9 percent), Sheriff (8 percent), and Road and Bridge (7 percent).

### **Natural Resourced Based Industry Profiles**

In 2015, the Mining sector in Campbell County produced 340.7 million tons of coal, 22.9 million barrels of crude oil and 96.1 million mcf of natural gas in addition to sand, gravel, aggregate, and uranium. The county's mining sector production represented 91 percent of the total coal production in the state, 26 percent of the total oil production in the state, and 5 percent of the total gas production in the state. The mining industry in the county, including the associated industrial property, had an assessed valuation of \$4.7 billion dollars in 2016 (2016 assessed valuation for mineral production is based on 2015 production). This valuation represented 89 percent of the total assessed valuation for the county. Based on the county levy, the mineral industry generated \$281.3 million in property tax revenue in 2016. Of this total, 75 percent went to K-12 schools (\$210.1 million), 19 percent went to county government (\$52.6 million), and 7 percent went to county special districts (\$18.6 million). Special districts in the county included: Hospital, Cemetery, and Water & Sewer. In 2015 the mining industry in the county supported 8,781 jobs with labor earnings of \$1.1 billion. This represented 23 percent of total employment and 42 percent of total labor earnings in the county. The percent of total employment in mining for the county was 30 times the national percentage (0.8%) indicating a high degree of specialization in Mining in the county. The average earnings per job for mining in the county were \$129,170 which was 1.8 times the county average (\$71,220). The mining industry ranked 1th out of 23 sectors in the county's economy in terms of total employment and 1nd out of 23 sectors in terms of total labor earnings.

In 2012 there were 744 agricultural operations in Campbell County. These operations managed 2.9 million acres in the county (Figure 25). Included in this acreage is 90 percent of the private land in the county. Of the total land in agriculture, 94 percent is classified as grazing land, 5 percent as cropland, 1

percent as woodlands, and 0.5 percent as farmsteads and buildings. The average size of an agricultural operation in the county was 3,868 acres. The total cattle and sheep inventory in the county was 107,267 head including 79,670 head of cattle and calves and 27,597 head of sheep and lambs. In 2014, the county ranked 5<sup>th</sup> out of 23 counties in Wyoming in terms of all cattle inventory and 5<sup>th</sup> out of 23 counties in terms of all sheep. It also ranked 4<sup>th</sup> in winter wheat production, and 12<sup>th</sup> in alfalfa hay production. In terms of investment by agricultural operators, the estimated total market value of lands, buildings, and equipment for agriculture in the county was \$1.7 billion. This total included \$1.6 billion in land and buildings and \$70.4 million for equipment and machinery. The average investment per agricultural operation was \$2.3 million. In 2012 agricultural operations in the county paid \$2.0 million in property taxes.

The gross revenue for the agricultural industry in the county in 2015 was \$76.9 million. Of this total 83 percent was from cash receipts for livestock, 4 percent was from cash receipts for crops, 7 percent was from miscellaneous sources, and 5 percent was from government payments. Total employment for agriculture in 2015 was 898 jobs with labor earnings of -\$2.7 million. This represented 2 percent of the total jobs in the county. The percent of total employment in agriculture for the county was 1.7 times the national percentage (1.4 percent). The average earnings per job for agriculture in the county were -\$2,980. The negative AEPJ for the Agricultural sector was due to the part-time nature of many agricultural operations and a \$12.3 million loss in realized net income for the county's agricultural sector in 2015. In addition, average earnings per job in agriculture tend to be low because most employment in agriculture is self-employment and includes a large number of small part-time and lifestyle operations that generate limited labor earnings. Bureau of Labor Statistics (BLS) data, which is based on employment covered by unemployment insurance, may be a better indicator of average earnings per job for commercial agricultural employment in the county. For 2015, BLS data indicates that the average earnings per job for agricultural employment in Campbell County were \$30,210. The agriculture industry ranked 13<sup>th</sup> out of 23 sectors in the county's economy in terms of total employment and 23<sup>th</sup> out of 23 sectors in terms of total labor earnings.

In addition to jobs and income, agriculture also provides important natural resource amenities such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community. Out of economic necessity, most agricultural operations in the county cover large areas of land; as a result, agriculture can contribute substantially to maintaining open spaces on private lands in a region. As noted above, 90 percent of the private land in county is in agricultural use. Due to the natural resource amenities associated with agricultural land there is public support for the retention of lands in agriculture. For example, a recent survey sponsored by the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, the Nature Conservancy, and the University of Wyoming found that nearly 80 percent of Wyoming residents felt that they personally benefit from the presence of farms and ranches in Wyoming. In addition, 76 percent of respondents were concerned with the loss of family farms and ranches in the State. Other issues of serious concerns to respondents included the availability of water for farming and ranching (71 percent), and natural areas and ranchland being split up by new development (66 percent).

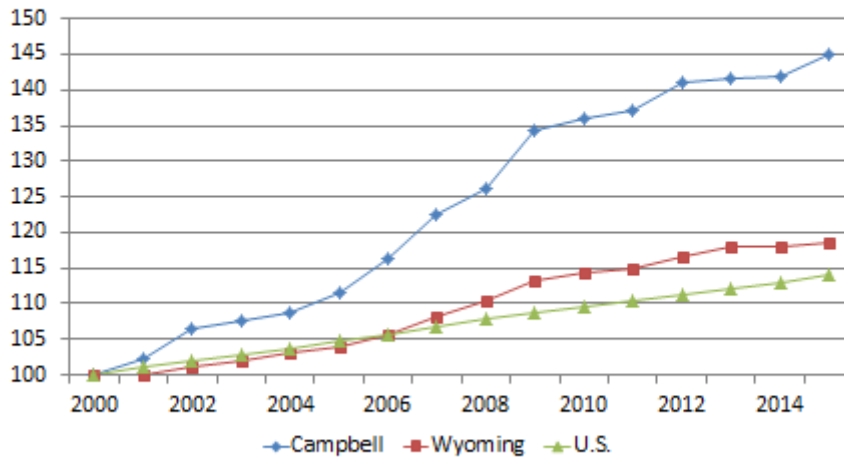


Dean Runyan Associates estimates that visitors spent \$117.4 million while in Campbell County in 2015. In terms of accommodations, 63 percent of this spending was by visitors staying in hotels/motels, 14 percent by visitors staying in campgrounds, 14 percent was by visitors staying in private homes, 1 percent was by visitors staying in vacation homes, and 8 percent was by visitors not staying overnight. In terms of purchases, 28 percent was spent accommodations, 21 percent was spent on food services, 6 percent was spent at food stores, 21 percent was spent on local transportation & gas, 12 percent was spent on arts, entertainment & recreation, 12 percent was spent on retail items, and 1 percent was spent for air transportation.

Dean Runyan estimated that the travel industry generated 1,220 direct jobs in the county in 2015. This represents 3 percent of total employment in the county. Fifty-four percent of these jobs were in the accommodations and food service sector, 28 percent were in the arts/entertainment/recreation sector, and 11 percent were in the retail trade sector. The labor earnings associated with this employment was estimated to be \$30.9 million. This represents 1 percent of the total labor earnings for the county. Average earnings per job for the travel industry in the county for 2015 were \$25,328. Average earnings per job for the travel industry were 36 percent the county average (\$71,220). The tax revenue associated with the county's travel industry is estimated to be \$5.9 million with \$2.2 million (37 percent) going to local government and \$3.7 million (63 percent) going to state government.

# DEMOGRAPHICS

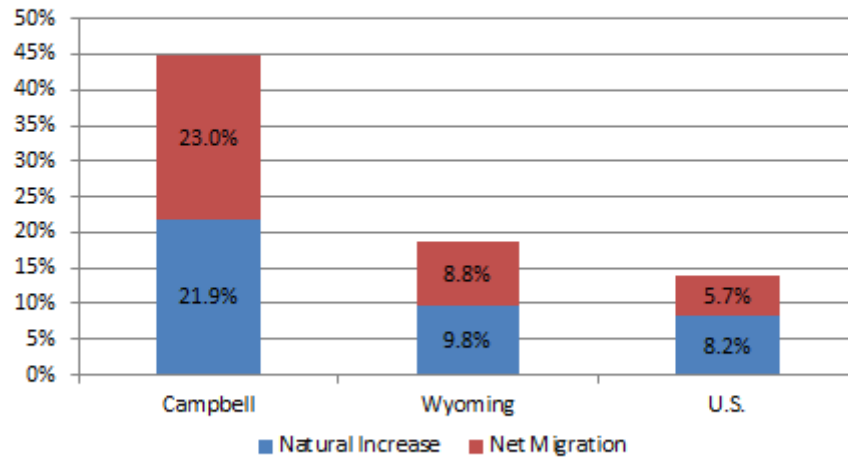
Figure 1.  
Population Growth Index: 2000-2015



Campbell County experienced significant population growth between 2000 and 2015, increasing from 33,979 residents in 2000 to 49,220 residents in 2015 (+45 percent). The county’s population growth rate was 2.4 times the Wyoming growth rate (19 percent) and 3.2 times the U.S. growth rate (14 percent) between 2000 and 2015. More than 76 percent of the county’s population growth occurred from 2000 through 2009 when the average annual rate of growth was 3.4 percent. Since 2009, the county’s average annual population growth rate has slowed, declining by 60 percent to 1.3 percent per year. Recently released Census data indicates that the county’s population declined by 1 percent between 2015 and 2016.

**Data Sources:** Wyoming Department of Administration and Information. 2017. Economic Analysis Division, Table 1. Intercensal Estimates of the Resident Population for Counties of Wyoming: April 1, 2000 to July 1, 2010 and Table 1. Annual Estimates of the Resident Population for Counties of Wyoming: April 1, 2010 to July 1, 2015.

Figure 2.  
Comparison of Source of Population Change: 2000-2015

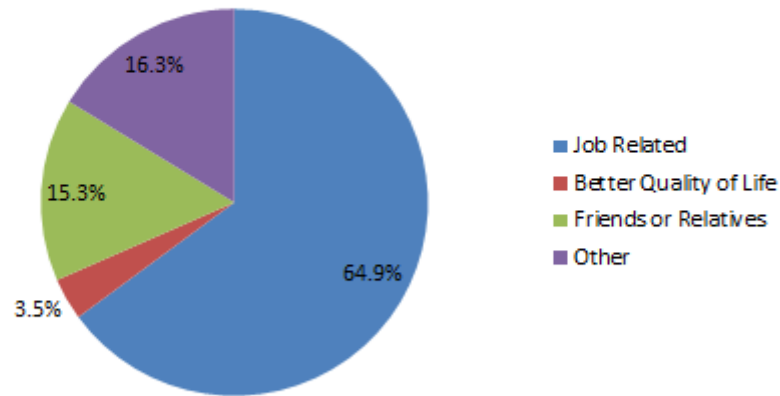


Population increases can occur in one of two ways: 1) Natural Increase (more births than deaths) or 2) Net In-Migration (more people moving in than moving out). Between 2000 and 2015 Campbell County experienced substantial increase from both types of population growth (Figure 2). The county's population growth from net in-migration (23 percent) was 2.6 times the growth from net in-migration for Wyoming (9 percent) and 4.0 times the growth from net in-migration for the U.S. (6 percent). Much of this net in-migration was probably due to the growth in employment opportunities in the county during this time period.

Due to the relative young age of the county's population, the county also experienced substantial population increase from natural increase. The younger age of county residents results in more births and less deaths. In fact, in 2015 Campbell County had the highest birth rate in the state with 16.2 births per 1,000 population. This birth rate was 23 percent above the state average in 2015. The county's population growth rate from natural increase (22%) was 2.2 times the growth from natural increase for Wyoming (10 percent) and 2.7 times the growth from natural increase for the U.S. (8 percent). Overall, the total population increase for the county from 2000 through 2015 was about one-half from net in-migration and one-half from natural increase. This ratio was similar to that for the population growth in Wyoming. However, for the U.S. 60 percent of the population growth came from natural increase with 40 percent coming from net in-migration. The percent of population increases from net in-migration would be expected to be lower at the national level due to greater restrictions on immigration. Recently released Census data indicates that between 2015 and 2016 county population growth from natural increase was +434 but county net in-migration was -996 resulting in a net population loss of 1 percent.

**Data Source:** Wyoming Department of Administration and Information. 2017. Economic Analysis Division, Annual Births, Deaths, and Net Migration by County of Residence: 1971-2015.

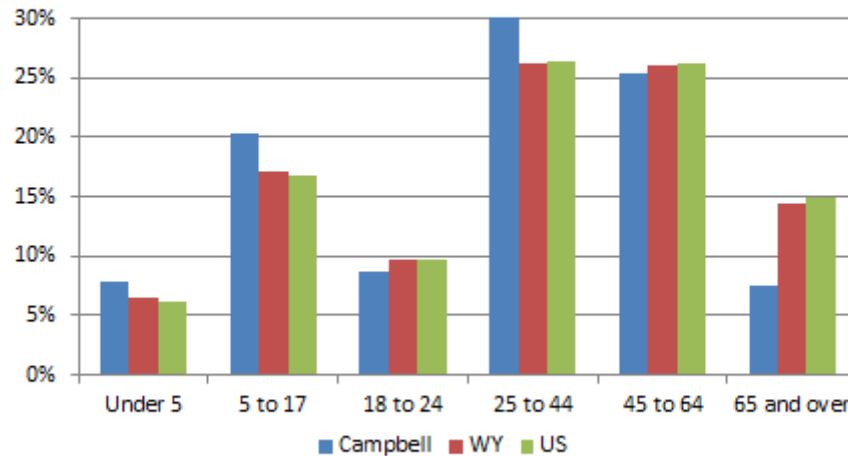
Figure 3.  
Primary Reason for Moving to Campbell County: 2000-2016



People move to an area for a variety of reasons ranging from economic to aesthetic. Data from the Wyoming Housing Database Partnership for 2000 through 2016 (Figure 3) indicates that the most frequent reason given by new residents to Campbell County for moving to Wyoming were job related factors (65 percent). Job related factors included Job Transfers, New Jobs, Better Employment Opportunities, and Starting or Expanding a Business. The second most frequent reason was that friends or relatives already resided in the area (15 percent). Less than four percent of new residents surveyed indicated that a better quality of life was the primary reason for moving to the county with 16 percent indicating some other reason. This data is from the Housing Needs Assessment Survey conducted by the Wyoming Housing Database Partnership in cooperation with the Wyoming Department of Transportation. The survey results are based on a random sample of new residents who were exchanging their previous state's driver's licenses for Wyoming licenses.

**Data Source:** Wyoming Community Development Authority. 2016. Wyoming Housing Database Partnership, Wyoming Profile of Demographics, Economics, and Housing; Volume II: Technical Appendix, Semiannual Report, Appendix G: Housing Needs Assessment Survey Data, 2000-2015.

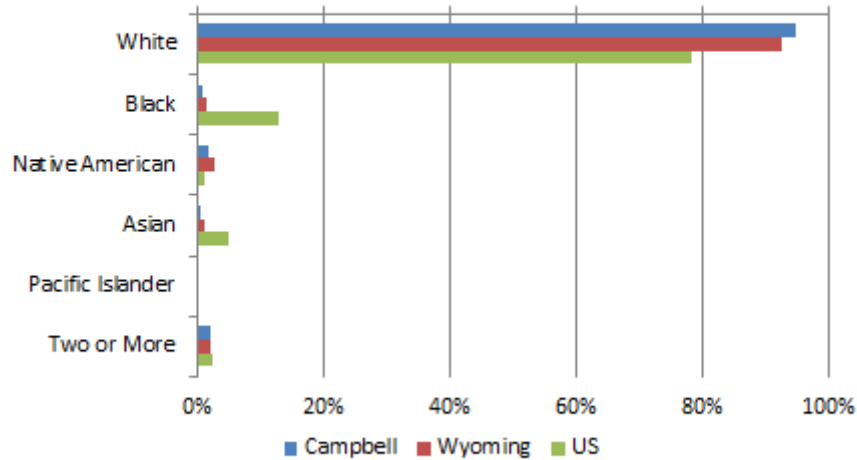
Figure 4.  
Comparison of Population Age Distribution: 2015



In 2015 the largest age groups for Campbell County were adults 25 to 44 years old (30 percent) and adults 45 to 64 years old (26 percent). Combined, these two age groups represented 56 percent of the total county population (Figure 4). The next largest age group was youth 5 to 17 (20 percent), followed by young adults 18 to 24 (9 percent), youth under 5 (8 percent) and lastly retirement aged adults 65 and over (7 percent). The population distribution for the county was over represented at the lower ends of the age spectrum and under represented at the upper ends of the age spectrum relative to Wyoming and the U.S. Compared to Wyoming and the U.S., the county had a higher proportion of its overall population in the younger age groups of Under 5 and 5 to 17. The county also had a higher proportion of its overall population in the adults 25 to 44 age group. However, the proportion of the county's population in the 18 to 24 age group was less than Wyoming and the U.S. On the other end of the age spectrum, the county had a lower proportion of its overall population in the older age groups of 45 to 65 and 65 and over, especially the 65 and over age category which was 48 percent lower than Wyoming and 50 percent lower than the U.S. Overall, the median age for the county in 2014 (32.9 years) was 11 percent younger than the median age for Wyoming (36.9 years) and 13 percent younger than the median age for the U.S. (37.8 years). Given the relatively high proportion of the county's residents in the younger age groups, the county's population is likely to continue to remain relatively younger over time.

**Data Source:** Wyoming Department of Administration and Information. 2017. Economic Analysis Division, Annual Estimation of the Resident Population for Selected Age Groups by Sex for Wyoming: April 1, 2010 to July 1, 2015.

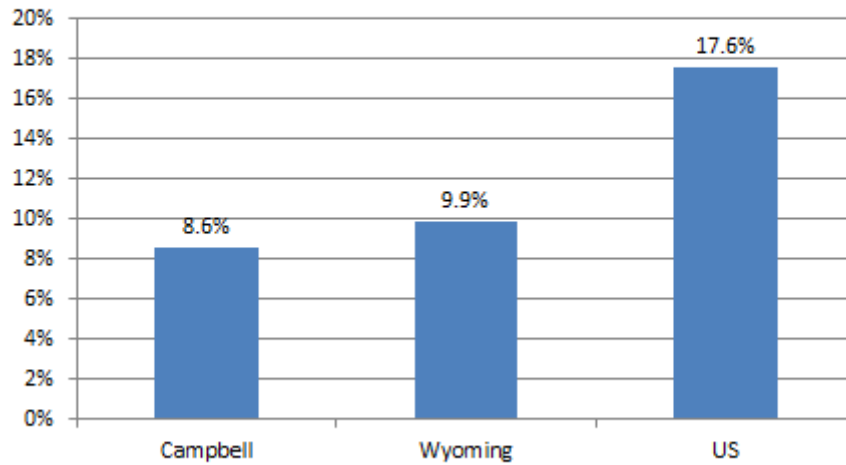
Figure 5.  
Comparison of Population by Race: 2015



White is the predominate category of race in Campbell County, accounting for 95 percent of the total population (Figure 5). The percentage of the population that is White in the county is 2 percent higher than the percentage for Wyoming (93 percent) and 17 percent higher than the percentage for the U.S. (78 percent). The other five races identified by the federal government account for the remaining 5 percent with Two or More Races being the most common (2.0 percent), followed by Native American (1.6 percent), Black (0.8 percent), Asian (0.6 percent), and Pacific Islanders (0.1 percent). The proportion of the county's population that was Black (0.8 percent versus 1.4 percent and 13.0 percent), Asian (0.6 percent versus 1.0 percent and 4.9 percent), Pacific Islander (0.1 percent versus 0.1 percent and 0.2 percent), or Two or More Races (2.0 percent versus 2.1 percent and 2.3 percent) was less than either Wyoming or the U.S. The proportion of the county's population that was Native American was less than Wyoming but higher than the U.S. (1.6 percent versus 2.7 percent versus 1.2 percent).

**Data Source:** Wyoming Department of Administration and Information. 2017. Economic Analysis Division, Table 6. Annual Estimate of the Resident Population by Race for the United States, Wyoming, and Counties: July 1, 2015.

Figure 6.  
Comparison Percent of Population Hispanic: 2015

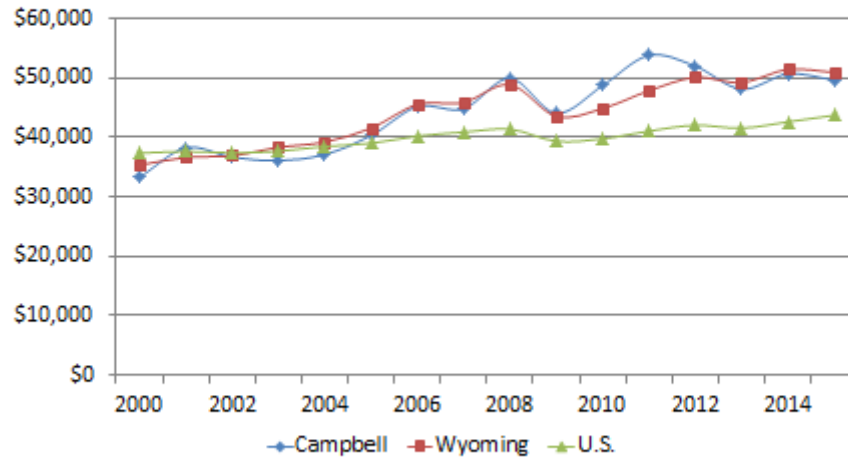


The federal government defines the term “Hispanic” as an ethnicity rather than a specific race. Thus Hispanics can be individuals of any race that self-identify themselves as “Hispanic” or “Latino” based on heritage, nationality group, lineage, or country of birth of the person or person’s parents or ancestors before their arrival in the United States. In Campbell County, as shown in Figure 6, the percentage of the population classifying themselves as Hispanic (9 percent) was 51 percent less than the U.S. percentage (18 percent) and 13 percent less than the Wyoming percentage (10 percent).

**Data Source:** Wyoming Department of Administration and Information. 2017. Economic Analysis Division, Table 6. Annual Estimates of the Resident Population by Race and Hispanic Origin for the United States, Wyoming, and Counties: July 1, 2015.



Figure 7.  
Per Capita Income: 2000-2015  
(Adjusted for Inflation)

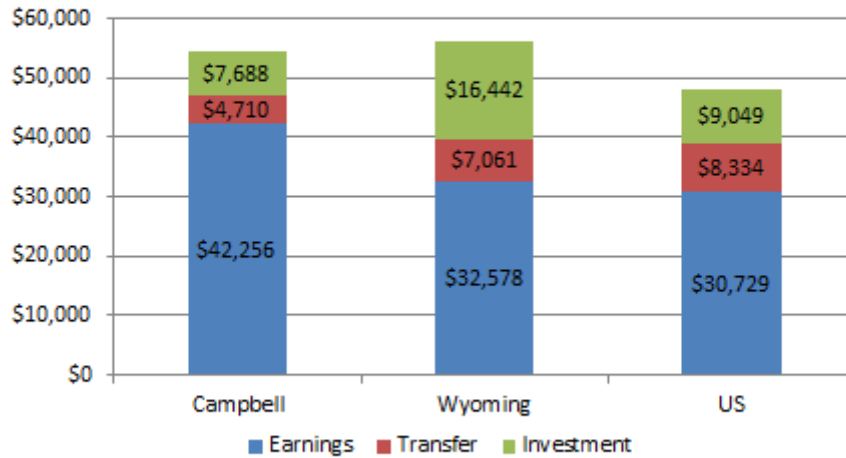


Per capita income can serve as a general indicator of the economic well-being of a county's population. In 2000, per capita income in Campbell County was \$33,249 in 2009 dollars (Figure 7). The per capita income for the county in 2000 was 6 percent below Wyoming's per capita income (\$35,373) and 11 percent below the U.S. per capita income (\$37,371). From 2000 to 2015, after adjusting for inflation, per capita income for the county increased by 49 percent to \$49,686. As a result of this increase, in 2015 the county's per capita income was only 2 percent lower than Wyoming's (\$50,984), and 14 percent higher than the U.S. (\$43,739).

There are three sources of per capita income: 1) net labor earnings including wages, salaries, and proprietor (self-employed) income, 2) government transfer payments such as Social Security, Medicare, Medicaid, and various income assistance program payments, and 3) investment income representing property income in the form of dividends, interest, and rents. The majority of the growth in the county's per capita income between 2000 and 2015 was the result of growth of net labor earnings (79 percent) with 9 percent coming from increased transfer payments and 12 percent coming from increased investment income. Transfer payments were the fastest growing individual source of per capita income between 2000 and 2015 increasing by 55 percent, while labor earnings increased by 51 percent and investment income increased by 38 percent. In 2000, net labor earnings represented 76 percent of total per capita income, with investment income representing 15 percent, and transfer payments representing 8 percent. In 2015 the distribution of sources of per capita income was essentially unchanged with net labor income represented 77 percent of total per capita income, investment income representing 14 percent, and transfer payments representing 9 percent.

**Data Source:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

**Figure 8.**  
**Comparison of Per Capita Income by Source 2015**

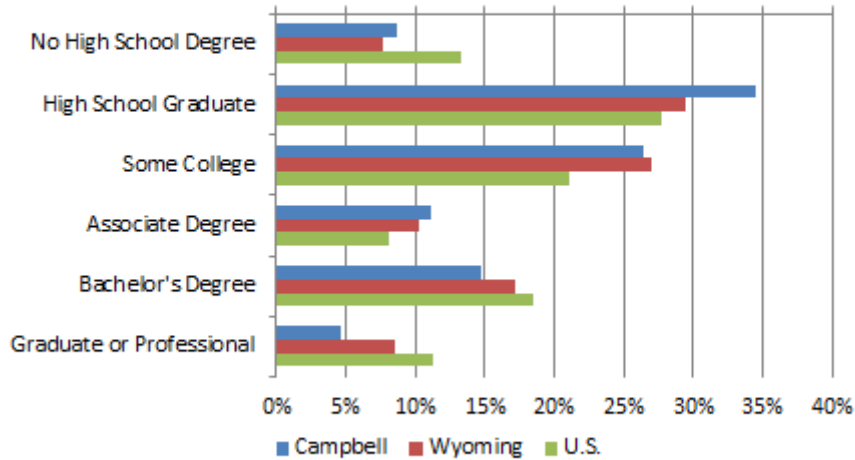


In 2015 per capita income for Campbell County was \$54,654 in 2015 dollars (Figure 8). This level of income was 2 percent below per capita income for Wyoming (\$56,081) and 14 percent above per capita income for the U.S. (\$48,112). Among the three regions, the county had the highest per capita labor earnings (\$42,256) which was 30 percent above per capita labor earnings for Wyoming (\$32,578) and 37 percent above per capita labor earnings for the U.S. (\$30,729). Conversely, the county had the lowest per capita transfer payments (\$4,710) which was 33 percent lower than per capita transfer payments for Wyoming (\$7,061), and 43 percent lower than per capita transfer payments for the U.S. (\$8,334). The county's per capita investment income (\$7,688) was 53 percent below per capita investment income for Wyoming (\$16,442), and 15 percent lower than per capita investment income for the U.S. (\$9,049). The relatively greater importance of labor earnings and the relatively lesser importance of transfer payments and investment income for the county may be a reflection of the younger age of the county's population.

The county's 2015 unemployment rate (3.8 percent) was lower than Wyoming's unemployment rate (4.2 percent) and lower than the U.S. unemployment rate (5.3 percent). While total per capita income for the county was 2 percent below the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2015 was 7 percent above the state average. This difference suggests that, on average, the county's residents were economically slightly worse-off than the rest of the state in 2015. However, the percent of the county's population that was below the poverty level (7 percent) was 29 percent below Wyoming's rate (11 percent) and 44 percent below the U.S. rate (13 percent).

**Data Source:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

**Figure 9.**  
**Level of Educational Attainment, 2011-2015**  
**(Population 25 Years or Older)**

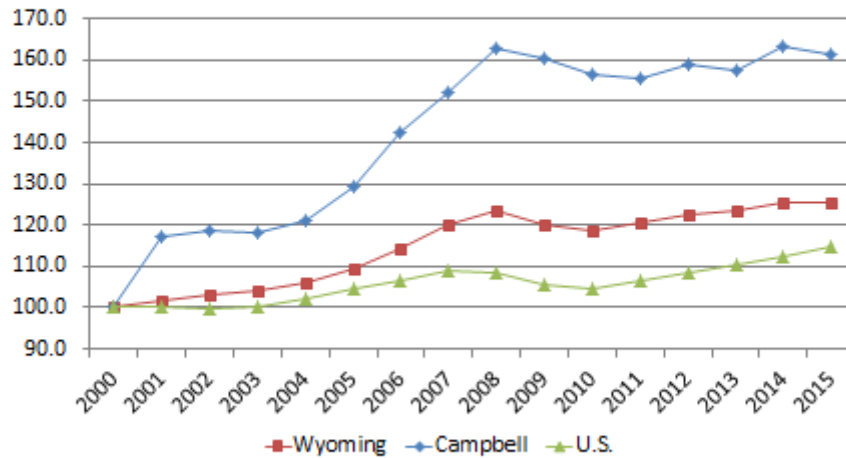


Overall, the educational attainment of Campbell County’s adult population in terms of a high school degree or higher (91 percent) was comparable to Wyoming’s (92 percent) and higher than the U.S. (87 percent). The county’s adult population was somewhat less educated in terms of college or advanced degrees than Wyoming (19 percent vs. 26 percent) and the U.S. (19 percent vs 30 percent). The percentage of the county population without a high school degree (9 percent) was slightly higher than Wyoming’s (8 percent) and lower than the U.S. (13 percent). The percentage of the county’s population with a high school degree (34 percent) was much higher than Wyoming’s (29 percent) and the U.S. (28 percent). The percentage of the county’s population with some college (26 percent) or an associate degree (11 percent) was similar to both Wyoming (27 percent and 10 percent) and the U.S. (21 percent and 8 percent). The percentage of the county’s population with either a bachelors (15 percent) or graduate/professional degree (5 percent) was below Wyoming’s (17 percent and 9 percent) and the U.S. (18 percent and 11 percent).

In terms of access to educational resources, the county has one public school district with a total of 21 schools and a 2014 fall enrollment of 8,826. The graduation rate for the public school system was 77 percent compared to a state average of 79 percent. The public school system had 656 certified teachers, 152 certified staff, 47 administrators, and 757 classified staff. Total general fund expenditures for the county’s public school system was \$125.6 million in 2014 with an operating cost of \$16,420 per average daily membership. This compares with an average operating cost of \$17,229 per average daily membership for the state. Gillette College which is part of the Northern Wyoming Community College District is located in the county.

**Data Source:** Wyoming Department of Administration and Information. 2015. Economic Analysis Division, Wyoming County Profiles 2015.

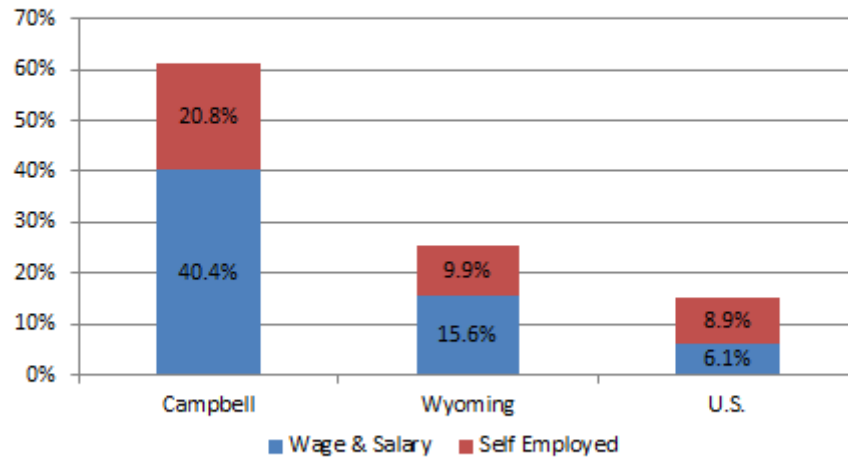
Figure 10.  
Employment Growth Index: 2000-2015



Campbell County experienced significant employment growth between 2000 and 2015. Employment in the county increased by 61 percent from 2000 through 2015 growing from 23,262 jobs in 2000 to 37,491 jobs in 2015 (Figure 10). During this time period Wyoming employment increased by 25 percent and the U.S. employment increased by 15 percent. Most of the growth in county employment occurred between 2000 and 2008 with employment peaking at 37,868 jobs in 2008. Since 2008, county employment has been fairly flat. All three regions were negatively affected by 2008-2009 recession. However, the county's employment bottomed out later than Wyoming or the U.S. (2011 vs. 2010 vs. 2010) and the county's employment recovered more slowly than Wyoming or the U.S. not exceeding 2008 employment levels until 2014 compared to 2013 for Wyoming and the U.S. County employment then declined between 2014 and 2015 to below 2008 levels. Preliminary Bureau of Labor Statistics data indicates that total county employment declined by 11 percent from September 2015 to September 2016 and by 16 percent from September 2014 to September 2016. Meanwhile, county Natural Resource & Mining employment declined by 24 percent between September 2015 and September 2016 and 33 percent between September 2014 and September 2016.

**Data Source:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

Figure 11.  
Comparison of Employment Growth: 2000-2015



From 2000 to 2015, employment in Campbell County increased by 61 percent (Figure 11). This increase was 2.4 times the employment increase for Wyoming (25 percent) and 4.1 times the employment increase for the U.S. (15 percent) during the same time period. The county experienced strong growth in both wage and salary employment and self-employed jobs between 2000 and 2015. Of the 61 percent increase in total employment 40 percent was from growth in wage and salary jobs. This compares to 16 percent growth for wage and salary jobs in Wyoming and 6 percent for growth for wage and salary jobs in the U.S. Growth in self-employed jobs in the county was also strong representing 21 percent of the growth between 2000 and 2015 compared to 10 percent for Wyoming and 9 percent of the U.S. Overall, wage and salary jobs accounted for two-thirds of the total job growth in the county between 2000 and 2015 with self-employed jobs accounting for one-third. Self-employment was the fastest growing source of jobs in the county increasing by 2.7 times from 2000 to 2015. Wage and salary jobs had slower growth increasing by 46 percent between 2000 and 2015.

**Data Source:** U.S. Department of Commerce. 2015. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

**Figure 12.**

**Campbell County Employment by Sector: 2015**

Sector	Jobs	Percent	LQ
Mining	8,781	23.4%	29.61
Local Government	4,805	12.8%	1.73
Retail Trade	3,316	8.8%	0.88
Construction	3,194	8.5%	1.63
Accommodations & Food Service	2,440	6.5%	0.88
Wholesale Trade	1,896	5.1%	1.42
Real Estate, Rental, & Leasing	1,718	4.6%	1.00
Transportation & Warehousing	1,595	4.3%	1.23
Other Services	1,518	4.0%	0.70
Management Services	1,428	3.8%	0.50
Health Care & Social Assistance	1,364	3.6%	0.32
Professional Services	1,171	3.1%	0.45
Agriculture	898	2.4%	1.72
Manufacturing	730	1.9%	0.28
Finance & Insurance	722	1.9%	0.38
Arts, Entertainment, & Recreation	395	1.1%	0.47
Utilities	381	1.0%	3.28
Military	258	0.7%	0.67
Information	253	0.7%	0.38
Educational Services	194	0.5%	0.21
State Government	183	0.5%	0.18
Forestry, Fishing, & Ag Support	164	0.4%	0.86
Federal - Civilian	87	0.2%	0.16
<b>Total</b>	<b>37,491</b>	<b>100.0%</b>	<b>N.A.</b>

The mining sector (which includes oil and gas for statistical purposes) was the largest source of employment in Campbell County representing 23 percent of total county employment (Figure 12). Following Mining was Local Government (13%), which includes all employment associated with county government, towns and city government in the county, and the county's public school districts. Other major sources of employment were Retail Trade (9 percent), Construction (8 percent), and Accommodations & Food Service (6 percent). Combined these five sectors represent sixty percent of the employment in the county. The Economic Research Service defines a county as mining dependent if 8 percent or more of total county employment is derived from Mining. Campbell County exceeds this threshold by nearly 3 times, indicating a very high dependency on Mining.

The location quotients (LQ), in the fourth column of Figure 12, were used to identify Defining Industries in the county. A location quotient is the ratio of an industry's share of total employment in the region relative to the industry's share of total employment at the national level. A large location quotient is an indication of specialization within the county's economy. Defining Industries are important because they

play a significant role in a region's growth over time. The Federal Reserve Bank of Kansas City considers Defining Industries as those with a locational quotient of at least 1.25 that account for at least 0.2 percent of total employment in the region. On this basis Campbell County has six Defining Industries including: Mining (29.61), Utilities (3.28), Local Government (1.73), Agriculture (1.72), Construction (1.63), and Wholesale Trade (1.42). Transportation & Warehousing is close to the definition of a Defining Industry (1.23).

**Data Source:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

**Figure 13.****Change in Campbell County Employment by Sector: 2001-2015**

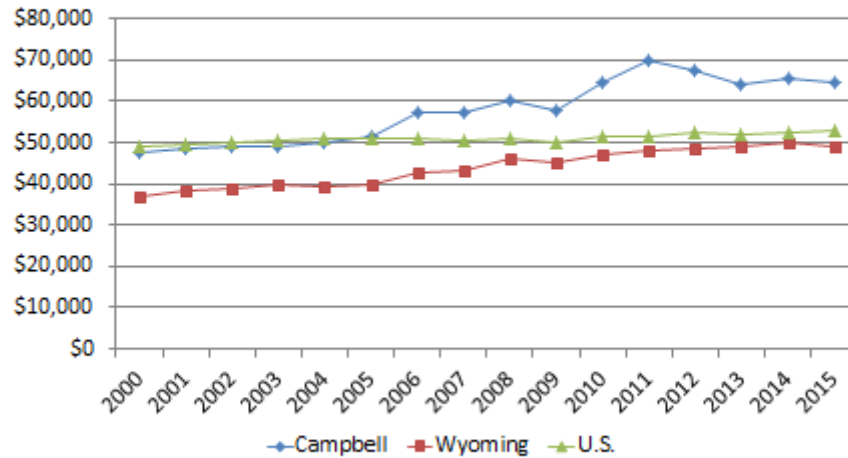
Sector	2001	2015	Change 2001-2015	Percent of Change	Percent Change
Mining	6,640	8,781	2,141	20.9%	32.2%
Local Government	3,006	4,805	1,799	17.5%	59.8%
Real Estate, Rental, & Leasing	714	1,718	1,004	9.8%	140.6%
Wholesale Trade	968	1,896	928	9.0%	95.9%
Accommodations & Food Service	1,752	2,440	688	6.7%	39.3%
Retail Trade	2,637	3,316	679	6.6%	25.7%
Transportation & Warehousing	1,065	1,595	530	5.2%	49.8%
Other Services	1,053	1,518	465	4.5%	44.2%
Construction	2,895	3,194	299	2.9%	10.3%
Professional Services	898	1,171	273	2.7%	30.4%
Agriculture	674	898	224	2.2%	33.2%
Utilities	158	381	223	2.2%	141.1%
Manufacturing	514	730	216	2.1%	42.0%
Arts, Entertainment, & Recreation	203	395	192	1.9%	94.6%
Finance & Insurance	535	722	187	1.8%	35.0%
Health Care & Social Assistance	1,183	1,364	181	1.8%	15.3%
Management Services	1,257	1,428	171	1.7%	13.6%
Educational Services	78	194	116	1.1%	148.7%
Military	200	258	58	0.6%	29.0%
Information	246	253	7	0.1%	2.8%
State Government	181	183	2	0.0%	1.1%
Federal - Civilian	86	87	1	0.0%	1.2%
Forestry, Fishing, & Ag Support	290	164	-126	-1.2%	-43.4%
<b>Total</b>	<b>27,233</b>	<b>37,491</b>	<b>10,258</b>	<b>100.0%</b>	<b>37.7%</b>

Employment in Campbell County increased by 38 percent from 2001 through 2015 (Figure 13). This compares to a 23 percent increase in employment for Wyoming and a 15 percent increase in employment for the U.S. during this time period. The largest increases in employment came from Mining (+2,141 jobs), Local Government (+1,799 jobs), Real Estate, Rental, & Leasing (+1,004 jobs), and Wholesale Trade (+928 jobs). Combined these four sectors represented 57 percent of the total employment growth in the county. On the other hand, one sector lost employment between 2001 and 2015: Forestry, Fishing, and Ag Support (-126 jobs). In terms of individual sectors the fastest growing sectors were private Education Services (+149 percent), Utilities (+141 percent), and Real Estate, Rentals & Leasing (+141 percent).

**Data Source:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.



Figure 14.  
Comparison of Average Earnings Per Job: 2000-2015  
(Adjusted for Inflation)



In addition to the number of jobs, the labor earnings associated with those jobs is an important consideration. Overall average earnings per job are a general measure of the economic well-being of the local workforce. Figure 14 illustrates the continuing success that the Campbell County economy has had with generating relatively high paying jobs. In 2000, the average earnings per job for the county were \$47,480, in 2009 dollars, which was 29 percent above the Wyoming average earnings per job (\$36,862) and only 3 percent below the U.S. average earnings per job (\$48,821). From 2000 through 2015, after adjusting for inflation, county average earnings per job increased by 36 percent to \$64,747. As a result of this increase, 2015 county average earnings per job were 32 percent above the Wyoming average earnings per job (\$48,978) and 22 percent above the U.S. average earnings per job (\$52,936). While county average earnings per job were 32 percent above the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2014 was 7 percent above the state average. This difference suggests that, on average, the county's workforce was economically substantially better-off than the rest of the state in 2015.

**Data Source:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

**Figure 15.****Average Earnings Per Job for Campbell County: 2015**

Sector	Jobs	Earnings (\$1,000)	AEPJ
Mining	8,781	\$1,134,240	\$129,170
Utilities	381	\$47,958	\$125,874
Federal - Civilian	87	\$7,610	\$87,471
Transportation & Warehousing	1,595	\$137,609	\$86,275
Wholesale Trade	1,896	\$159,988	\$84,382
State Government	183	\$14,806	\$80,907
Local Government	4,805	\$352,523	\$73,366
Manufacturing	730	\$52,781	\$72,303
Construction	3,194	\$203,324	\$63,658
Professional Services	1,171	\$64,151	\$54,783
Management Services	1,428	\$78,060	\$54,664
Health Care & Social Assistance	1,364	\$70,306	\$51,544
Finance & Insurance	722	\$33,147	\$45,910
Information	253	\$10,964	\$43,336
Other Services	1,518	\$65,662	\$43,256
Retail Trade	3,316	\$124,729	\$37,614
Military	258	\$7,451	\$28,880
Educational Services	194	\$5,248	\$27,052
Real Estate, Rental, & Leasing	1,718	\$43,856	\$25,527
Accommodations & Food Service	2,440	\$52,507	\$21,519
Forestry, Fishing, & Ag Support	164	\$2,644	\$16,121
Arts, Entertainment, & Recreation	395	\$3,225	\$8,165
Agriculture	898	-\$2,676	-\$2,980
<b>Total</b>	<b>37,491</b>	<b>\$2,670,113</b>	<b>\$71,220</b>

Average earnings per job (AEPJ), which includes benefits, varies substantially by sector. In 2015 AEPJ in Campbell County ranged from over \$129,000 for the Mining sector to nearly -\$3,000 for Agriculture (Figure 15). After Mining, the next highest AEPJ was in the Utilities sector (\$125,874). Following those two sectors, Federal-Civilian, Transportation & Warehousing, Wholesale Trade, and State Government all had AEPJ of more than \$80,000. Local Government and Manufacturing also had AEPJ about the county average (\$71,220). Of the 23 sectors in the county's economy 11 had AEPJ greater than the Wyoming average (\$53,875) and 9 had AEPJ greater than the U.S. average (\$58,228). The 11 sectors with AEPJ greater than the Wyoming and the 9 sectors with AEPJ greater than the U.S. represented 65 percent and 58 percent of the employment in the county. The negative AEPJ for the Agricultural sector was due to the part-time nature of many agricultural operations and a \$12.3 million loss in realized net income for the county's agricultural sector in 2015.

**Data Sources:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA25 & CA5.

**Figure 16.**  
**Total Labor Earnings for Campbell County: 2015**

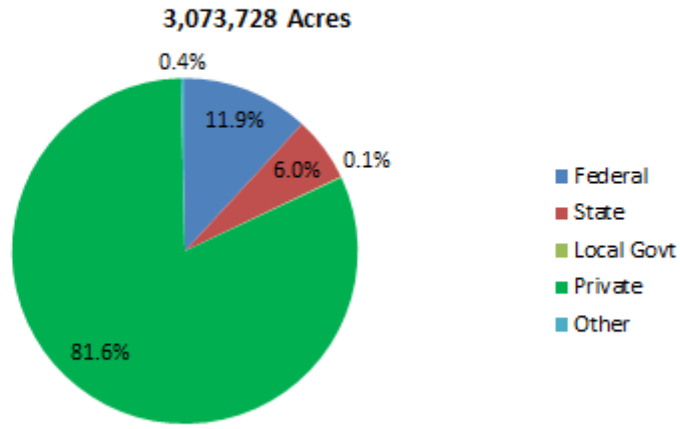
Sector	Jobs	AEPJ	Earnings	
			(\$1,000)	Percent
Mining	8,781	\$129,170	\$1,134,240	42.5%
Local Government	4,805	\$73,366	\$352,523	13.2%
Construction	3,194	\$63,658	\$203,324	7.6%
Wholesale Trade	1,896	\$84,382	\$159,988	6.0%
Transportation & Warehousing	1,595	\$86,275	\$137,609	5.2%
Retail Trade	3,316	\$37,614	\$124,729	4.7%
Management Services	1,428	\$54,664	\$78,060	2.9%
Health Care & Social Assistance	1,364	\$51,544	\$70,306	2.6%
Other Services	1,518	\$43,256	\$65,662	2.5%
Professional Services	1,171	\$54,783	\$64,151	2.4%
Manufacturing	730	\$72,303	\$52,781	2.0%
Accommodations & Food Service	2,440	\$21,519	\$52,507	2.0%
Utilities	381	\$125,874	\$47,958	1.8%
Real Estate, Rental, & Leasing	1,718	\$25,527	\$43,856	1.6%
Finance & Insurance	722	\$45,910	\$33,147	1.2%
State Government	183	\$80,907	\$14,806	0.6%
Information	253	\$43,336	\$10,964	0.4%
Federal - Civilian	87	\$87,471	\$7,610	0.3%
Military	258	\$28,880	\$7,451	0.3%
Educational Services	194	\$27,052	\$5,248	0.2%
Arts, Entertainment, & Recreation	395	\$8,165	\$3,225	0.1%
Forestry, Fishing, & Ag Support	164	\$16,121	\$2,644	0.1%
Agriculture	898	-\$2,980	-\$2,676	-0.1%
<b>Total</b>	<b>37,491</b>	<b>\$71,220</b>	<b>\$2,670,113</b>	<b>100.0%</b>

The combination of the number of jobs and the average earnings per job determines the relative importance of individual sectors in terms of total labor earnings in the Campbell County economy (Figure 16). Labor earnings are important because they represent the major source of personal income for county residents. Overall county employment generated \$2.7 billion in labor earnings in 2015. Mining, due to its large number of employees and relatively high average earnings per job, represents 42 percent of total county labor earnings. Following Mining were Local Government (13 percent), and Construction (8 percent). The Economic Research Service defines a county as mining dependent if 13 percent or more of total county labor income is derived from Mining. Campbell County exceeds this threshold by 3.2 times, indicating a very high dependency on Mining.

**Data Sources:** U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA25 & CA5.

# **LAND CHARACTERISTICS**

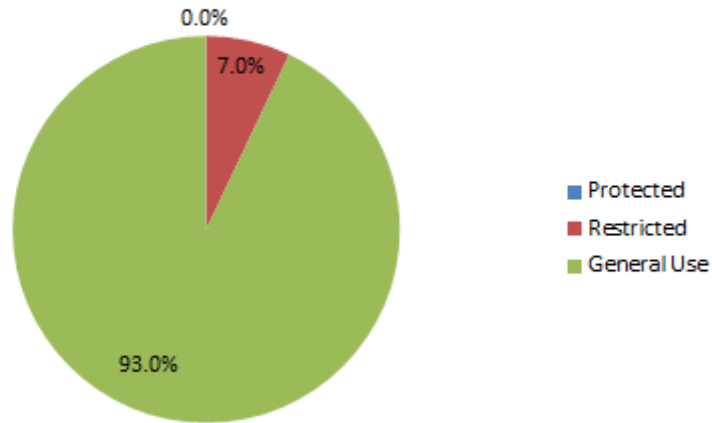
Figure 17.  
Land Ownership in Campbell County: 2012



Campbell County contains 3.1 million acres of land (Figure 17). The Federal government manages 12 percent of this land area (364,480 acres). The Forest Service manages 38 percent of the total Federal land in the county, with the BLM managing 62 percent. State land represents 6 percent of the county’s land area (185,664 acres). All of the state land in the county is state trust land. Finally, local government owns 0.1 percent of the county’s land area (3,712 acres). Fifty-three percent of the local government land is held by the county, with cities holding 33 percent, and school districts/colleges holding 14 percent. Private land is the largest type of landownership in the county accounting 82 percent of the surface area in the county (2.5 million acres). Information from the Wyoming Department of Revenue on acres taxed as agricultural land indicates that 96 percent of the private land in the county is in agricultural use (2.3 million acres). Of this total 96 percent is classified as range land (2.2 million acres), 4 percent is classified as dry cropland (95,732 acres), and less than one percent is classified as irrigated crop land (928 acres).

**Data Source:** Wyoming Department of Administration and Information. 2015. Wyoming and County Profiles 2015.

Figure 18.  
Management Designation of Federal Lands in Campbell County



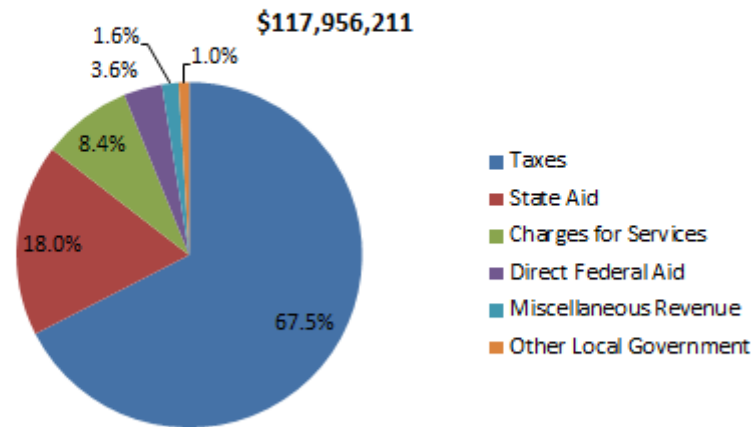
Federal lands are managed for different purposes under differing statutory authority. Three categories of designation are presented in Figure 18: 1) Protected, 2) Restricted., and 3) General Use. Protected areas include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Water Fowl Protection Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS). Restricted areas include Wilderness Study Areas (NPS, FWS, FS, BLM) and Inventoried Roadless Areas (FS). General Use areas include Public Domain Lands (BLM) and National Forests and Grasslands (FS). This data was obtained from the Economic Profile System – Human Dimension Toolkit (NPS = National Park Service, FWS = Fish and Wildlife, FS = Forest Service, and BLM = Bureau of Land Management).

In Campbell County, Economic Profile System data indicates that no federal lands are designated as protected. Meanwhile, 7 percent of federal lands are designated as restricted (26,182 acres) and 93 percent are designated for general use (345,423 acres). In comparison 65 percent of the total federal lands in Wyoming are designated for general use.

**Data Source:** Headwaters Economics. 2016. Economic Profile System-Human Dimension Toolkit, A Profile of Land Use (page 3).

# **County Government Finances**

Figure 19.  
Campbell County Government Revenue: FY2016



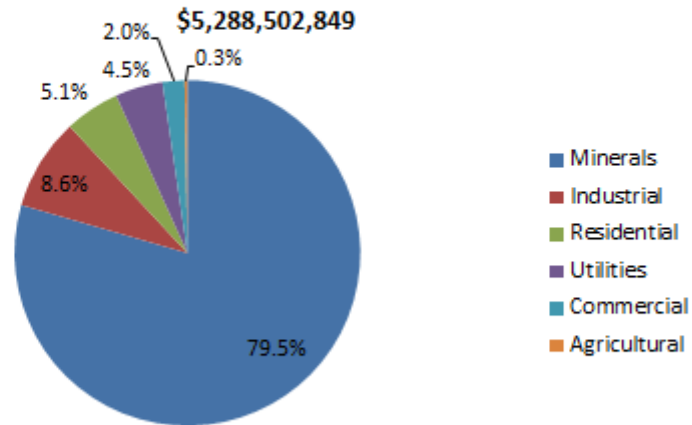
Wyoming Department of Audit information indicates that the total revenue for Campbell County Government was \$118.0 million in FY2016 (Figure 19). Of this total, the largest source was Taxes which included property taxes and any optional sales tax revenue (67 percent). Following Taxes was State Aid which included the county’s share of the 4 percent sales and use tax revenue (18 percent), Charges for Services (8 percent), and Direct Federal Aid, including PILT payments (4 percent). Combined these four sources represented 97 percent of the total county government revenue in FY2016. Other sources of county government revenue included Other Local Government Revenue and Miscellaneous Revenue. Combined these revenue sources represented 3 percent of the total county government revenue in FY2016.

Compared to all counties in Wyoming, the county had a higher proportion of revenue from Taxes (67 percent vs. 52 percent). The county’s proportion of revenue from State Aid was slightly lower relative to all counties in the state (18 percent vs. 24 percent), the proportion from Charges for Services was slightly higher relative to all counties in the state (8 percent vs. 7 percent) and the proportion from Direct Federal Aid was lower relative to all counties in the state (4 percent vs. 6 percent). Other sources of revenue were lower compared to all other counties in the state in terms of Other Local Government (1 percent vs. 4 percent) and Miscellaneous Revenue (2 percent vs. 7 percent). Overall, the county’s per capita revenue (\$2,396) was 73 percent above the average for all counties in Wyoming (\$1,384). Between FY2015 and FY2016 total county government revenue declined by 6 percent.

**Data Source:** Wyoming Department of Audit. 2016. Cost of Maintaining County Government in Wyoming: For Fiscal Year July 1, 2015-June 30, 2016: As prepared from Reports submitted to the Department of Audit Public Funds.



Figure 20.  
Campbell County Assessed Valuation: 2016

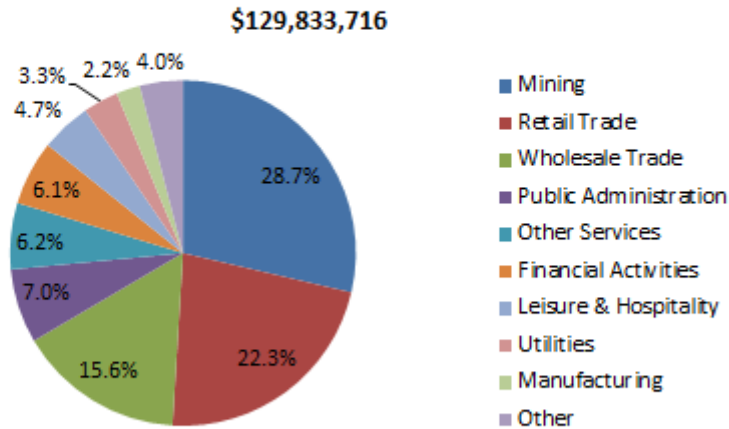


The total assessed valuation for Campbell County in 2016 was \$5.3 billion (Figure 20). Seventy-nine percent of the total valuation was from Mineral Production. Following minerals was Industrial Property (9 percent), Residential Property (5 percent), and Utilities (4 percent). Combined these four sources represented 98 percent of the county's total assessed valuation. Other sources of assessed valuation included Commercial Property (2 percent) and Agricultural Lands (less than 1 percent). Combined these sources represented 2 percent of the county's assessed valuation.

Compared to Wyoming, the county had a much higher proportion of assessed valuation from Mineral Production (80 percent vs. 50 percent). The county's proportion of assessed valuation from Industrial Property was comparable to Wyoming's (9 percent vs. 10 percent). The county's proportion of assessed valuation from Residential Property was much lower than Wyoming's (5 percent vs. 24 percent). The county's assessed valuation from Utilities, Commercial Property and Agricultural land was lower than Wyoming's (7 percent vs. 15 percent). In terms of Mineral Production, coal represented 75 percent of total county mineral assessed valuation, crude oil represented 21 percent of total county mineral assessed valuation, and natural gas represented 4 percent of total county mineral assessed valuation. In terms of Industrial Property, oil and gas extraction (29 percent) and coal mining facilities (66 percent) represented 95 percent of total county industrial property assessed valuation. Overall, oil and gas production and coal mining, the associated production facilities, and the associated transportation infrastructure represented 89 percent of the county's total assessed valuation. County per capita assessed valuation for 2016 was \$107,446 and was 3.0 times the per capita assessed valuation for the state (\$35,715). Between 2015 and 2016 total county assessed valuation declined by 15 percent.

**Data Sources:** Wyoming Department of Revenue. 2016. 2016 Annual Report.

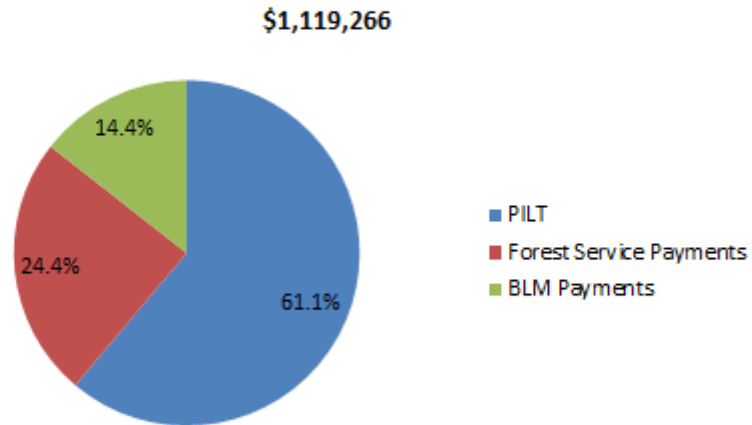
Figure 21.  
Campbell County Sales & Use Tax Revenue: FY2016



In FY2016 Campbell County’s sales and use tax generated \$129.8 million in sales and use tax revenue (Figure 21). Of this total, 55 percent (\$71.4 million) was retained by state government and 45 percent (\$58.4 million) was returned to local governments in the county. In FY2016 county government’s share of the returned sales and use tax revenue was approximately \$18.7 million (32 percent) with the remaining \$39.7 million (68 percent) going to municipal governments in the county. Twenty-nine percent of the county’s total sales and use tax revenue came from Mining. Following Mining was Retail Trade (22 percent), Wholesale (16 percent), Public Administration (7 percent), Other Services (6 percent), and Finances (6 percent). Combined these six sectors contributed 86 percent of the county’s total sales and use tax revenue. Public Administration represents sales and use tax revenue on motor vehicle purchases which are collected at the time of registration in Wyoming. Leisure & Hospitality, Utilities, Manufacturing, and Other combined contribute 14 percent of total county sales and use tax revenue. Compared to total sales and use tax revenue for Wyoming, the county had a substantially higher proportion of sales and use tax revenue from Mining (29 percent vs. 13 percent). The county’s proportion of sales and use tax revenue from Retail Trade was substantially lower than Wyoming’s (22 percent vs. 32 percent). The proportion of county sales and use tax revenue from Wholesale Trade was much higher than Wyoming’s (16 percent vs. 8 percent) and the proportion from Public Administration was lower compared to Wyoming’s (7 percent vs. 10 percent). The proportion of county sales and use tax revenue from Other Services and Financial Activities were both higher than Wyoming’s (6 percent vs. 4 percent and 6 percent vs. 5 percent). Between FY2015 and FY2016 total county sales and use tax revenue declined by 31 percent, while Mining sector sales and use tax revenue declined by 46 percent.

**Data Sources:** Wyoming Department of Administration and Information, Economic Analysis Division. 2016. Wyoming Sales, Use, and Lodging Tax Revenue Report, 41<sup>th</sup> Edition.

Figure 22.  
Campbell County Federal Land Payment: FY2015



The Economic Profile System-Human Dimensions Toolkit indicates that federal land payments to local governments in Campbell County totaled \$1.1 million in FY2015 (Figure 22). The largest source of federal land payments to the county was Payment in Lieu of Taxes (PILT) representing 61 percent of the total amount (\$684,330). PILT payments are intended to compensate county governments for non-taxable federal lands within their borders. It is based on a maximum per-acre payment reduced by other federal revenue sharing payments and subject to a per capita population cap. The second largest source of federal payments to the county was Forest Service payments representing 24 percent of the total amount (\$273,584). Forest Service payments can include 25 Percent Revenue Sharing funds, Secure Rural School & Community Self Determination Act funds, and Bankhead-Jones Forest Grasslands funds. The third largest source of federal payments to the county was BLM Payments representing 14 percent of the total amount (\$161,352). BLM payments represent revenue sharing funds including grazing fees through the Taylor Grazing Act. Of the \$1.1 million in Federal land payments to the county in FY2015, 69 percent went to county government (\$774,715), 6 percent went to grazing districts (\$70,967), with the remaining 24 percent (\$273,584) going to other entities. In FY2015 Federal Land Payments to the county represented \$3.07 per acre of Federal land.

**Data Source:** Headwaters Economics. 2016. Economic Profile System-Human Dimension Toolkit, A Profile of Federal Land Payments (page 1).

**Figure 23.****Campbell County Government Costs, FY2016**

Costs	Amount	Percent	Per Capita
Parks/Recreation/Museum	\$9,633,831	10.3%	\$195.73
Construction	\$8,908,880	9.5%	\$181.00
Jail	\$8,859,616	9.5%	\$180.00
Social Services	\$8,266,503	8.8%	\$167.95
County Sheriff	\$7,815,534	8.3%	\$158.79
Road and Bridge	\$6,575,577	7.0%	\$133.60
Capital	\$5,239,301	5.6%	\$106.45
Fire	\$4,623,401	4.9%	\$93.93
Library	\$3,768,271	4.0%	\$76.56
County Administration	\$3,364,792	3.6%	\$68.36
County Attorney	\$3,308,326	3.5%	\$67.22
Courthouse	\$2,939,658	3.1%	\$59.72
Finacial Administration	\$2,877,801	3.1%	\$58.47
Trash Colletion/Landfill	\$2,720,345	2.9%	\$55.27
Health (Not Hospital)	\$2,342,882	2.5%	\$47.60
County Clerk	\$1,762,266	1.9%	\$35.80
Distict Court	\$1,611,453	1.7%	\$32.74
County Surveyor	\$1,519,791	1.6%	\$30.88
County Airport	\$1,449,083	1.5%	\$29.44
County Treasurer	\$1,348,843	1.4%	\$27.40
County Assessor	\$1,202,567	1.3%	\$24.43
Juvenile Probation	\$1,028,496	1.1%	\$20.90
Fair	\$542,535	0.6%	\$11.02
Agricultural Department	\$447,006	0.5%	\$9.08
Natural Resources	\$333,261	0.4%	\$6.77
County Commissioners	\$332,958	0.4%	\$6.76
County Coroner	\$302,401	0.3%	\$6.14
Circuit/Drug Court	\$198,937	0.2%	\$4.04
Civil Defense/Emergency	\$189,462	0.2%	\$3.85
Elections	\$137,075	0.1%	\$2.78
Other Expenses	\$45,000	0.0%	\$0.91
<b>Total</b>	<b>\$93,695,852</b>	<b>100.0%</b>	<b>\$1,903.61</b>

The total cost of maintaining county government for Campbell County in FY2014 was \$93.7 million (Figure 23). This represents a per capita cost of \$1,901 which was 61 percent above the average for all counties in Wyoming (\$1,183). The largest cost categories were Parks/ Recreation/Museum (10 percent), Construction (9 percent), Jail (9 percent), Social Services (9 percent), Sheriff (8 percent), and Road and Bridge (7 percent).

**Data Source:** Wyoming Department of Audit. 2016. Cost of Maintaining County Government in Wyoming: For Fiscal Year July 1, 2015-June 30, 2016, As prepared from Reports submitted to the Department of Audit Public Funds

# **NATURAL RESOURCE BASED INDUSTRY PROFILES**

**Figure 24.**  
**Campbell County Mining Industry**

	Amount
<u>Mineral Production (2015)</u>	
Coal (Tons)	340,675,046
Crude Oil (Barrels)	22,924,542
Natural Gas (MCF)	96,144,468
Sand, Gravel, & Aggregate (Tons)	2,850,160
Uranium (LBS)	416,058
<u>Tax Revenue (2015 from 2014 Production)</u>	
Assessed Valuation	\$4,721,479,758
Property Tax Revenue	\$281,343,536
<u>Employment (2014)</u>	
Full & Part-time Jobs	8,781
Labor Earnings	\$1,134,240,000
Average Earnings Per Job	\$129,170

In 2015, the Mining sector in Campbell County produced 340.7 million tons of coal, 22.9 million barrels of crude oil and 96.1 million mcf of natural gas in addition to sand, gravel, aggregate, and uranium (Figure 24). The county's mining sector production represented 91 percent of the total coal production in the state, 26 percent of the total oil production in the state, and 5 percent of the total gas production in the state. The mining industry in the county, including the associated industrial property, had an assessed valuation of \$4.7 billion dollars in 2016 (2016 assessed valuation for mineral production is based on 2015 production). This valuation represented 89 percent of the total assessed valuation for the county. Based on the county levy, the mineral industry generated \$281.3 million in property tax revenue in 2016. Of this total, 75 percent went to K-12 schools (\$210.1 million), 19 percent went to county government (\$52.6 million), and 7 percent went to county special districts (\$18.6 million). Special districts in the county included: Hospital, Cemetery, and Water & Sewer. In 2015 the mining industry in the county supported 8,781 jobs with labor earnings of \$1.1 billion. This represented 23 percent of total employment and 42 percent of total labor earnings in the county. The percent of total employment in mining for the county was 30 times the national percentage (0.8%) indicating a high degree of specialization in Mining in the county. The average earnings per job for mining in the county were \$129,170 which was 1.8 times the county average (\$71,220). The mining industry ranked 1th out of 23 sectors in the county's economy in terms of total employment and 1nd out of 23 sectors in terms of total labor earnings.

**Data Sources:** Wyoming Oil and Gas Conservation Commission. 2016. OnLine Stats Book, 2015 County Report. Wyoming Department of Revenue. 2016. 2016 Annual Report, State Assessed Valuation: Production Year 2014. U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25 & CA5.

**Figure 25.**  
**Campbell County Agricultural Industry**

	Amount
<u>Assets (2012)</u>	
Total Land in Agriculture (Acres)	2,878,017
Cattle Inventory (Head)	79,670
Sheep Inventory (Head)	27,597
Investment – Land, Buildings, Equipment	\$1,736,342,000
Property Taxes Paid	\$2,029,000
<u>Gross Revenue (2015)</u>	
	\$76,888,000
<u>Employment (2015)</u>	
Jobs	898
Labor Earnings	-\$2,676,000
Average Earnings Per Job	-\$2,980

In 2012 there were 744 agricultural operations in Campbell County. These operations managed 2.9 million acres in the county (Figure 25). Included in this acreage is 90 percent of the private land in the county. Of the total land in agriculture, 94 percent is classified as grazing land, 5 percent as cropland, 1 percent as woodlands, and 0.5 percent as farmsteads and buildings. The average size of an agricultural operation in the county was 3,868 acres. The total cattle and sheep inventory in the county was 107,267 head including 79,670 head of cattle and calves and 27,597 head of sheep and lambs. In 2014, the county ranked 5<sup>th</sup> out of 23 counties in Wyoming in terms of all cattle inventory and 5<sup>th</sup> out of 23 counties in terms of all sheep. It also ranked 4<sup>th</sup> in winter wheat production, and 12<sup>th</sup> in alfalfa hay production. In terms of investment by agricultural operators, the estimated total market value of lands, buildings, and equipment for agriculture in the county was \$1.7 billion. This total included \$1.6 billion in land and buildings and \$70.4 million for equipment and machinery. The average investment per agricultural operation was \$2.3 million. In 2012 agricultural operations in the county paid \$2.0 million in property taxes.

The gross revenue for the agricultural industry in the county in 2015 was \$76.9 million. Of this total 83 percent was from cash receipts for livestock, 4 percent was from cash receipts for crops, 7 percent was from miscellaneous sources, and 5 percent was from government payments. Total employment for agriculture in 2015 was 898 jobs with labor earnings of -\$2.7 million. This represented 2 percent of the total jobs in the county. The percent of total employment in agriculture for the county was 1.7 times the national percentage (1.4 percent). The average earnings per job for agriculture in the county were -\$2,980. The negative AEPJ for the Agricultural sector was due to the part-time nature of many agricultural operations and a \$12.3 million loss in realized net income for the county's agricultural sector in 2015. In addition, average earnings per job in agriculture tend to be low because most employment in agriculture is self-employment and includes a large number of small part-time and lifestyle operations



that generate limited labor earnings. Bureau of Labor Statistics (BLS) data, which is based on employment covered by unemployment insurance, may be a better indicator of average earnings per job for commercial agricultural employment in the county. For 2015, BLS data indicates that the average earnings per job for agricultural employment in Campbell County were \$30,210. The agriculture industry ranked 13<sup>th</sup> out of 23 sectors in the county's economy in terms of total employment and 23<sup>th</sup> out of 23 sectors in terms of total labor earnings.

In addition to jobs and income, agriculture also provides important natural resource amenities such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community. Out of economic necessity, most agricultural operations in the county cover large areas of land; as a result, agriculture can contribute substantially to maintaining open spaces on private lands in a region. As noted above, 90 percent of the private land in county is in agricultural use. Due to the natural resource amenities associated with agricultural land there is public support for the retention of lands in agriculture. For example, a recent survey sponsored by the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, the Nature Conservancy, and the University of Wyoming found that nearly 80 percent of Wyoming residents felt that they personally benefit from the presence of farms and ranches in Wyoming. In addition, 76 percent of respondents were concerned with the loss of family farms and ranches in the State. Other issues of serious concerns to respondents included the availability of water for farming and ranching (71 percent), and natural areas and ranchland being split up by new development (66 percent).

**Data Sources:** USDA. 2015. National Agricultural Statistics Service, 2012 Census of Agriculture: Wyoming State and County Data, Volume 1, Geographic Series Part 50, AC-12-A-50, Table 1. County Summary Highlights: 2012 and Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2012 and 2007. U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA45, CA25, & CA5. Freedman, K.S. and N.M. Koranta. 2014. Public Opinion on Natural Resource Conservation in Wyoming: Wyoming Open Space Initiative, Ruckelshaus Institute, A Division of the Haub School of Environment and Natural Resources, UW Extension B-1258, October 2014.

**Figure 26.**  
**Campbell County Travel Industry, 2015**

	Amount
Visitor Spending	\$117.4 Million
Employment	1,220 Jobs
Labor Income	\$30.9 Million
Average Earnings Per Job	\$25,328
Local Tax Revenue	\$2.2 million

Dean Runyan Associates estimates that visitors spent \$117.4 million while in Campbell County in 2015 (Figure 26). In terms of accommodations, 63 percent of this spending was by visitors staying in hotels/motels, 14 percent by visitors staying in campgrounds, 14 percent was by visitors staying in private homes, 1 percent was by visitors staying in vacation homes, and 8 percent was by visitors not staying overnight. In terms of purchases, 28 percent was spent accommodations, 21 percent was spent on food services, 6 percent was spent at food stores, 21 percent was spent on local transportation & gas, 12 percent was spent on arts, entertainment & recreation, 12 percent was spent on retail items, and 1 percent was spent for air transportation.

Dean Runyan estimated that the travel industry generated 1,220 direct jobs in the county in 2015. This represents 3 percent of total employment in the county. Fifty-four percent of these jobs were in the accommodations and food service sector, 28 percent were in the arts/entertainment/recreation sector, and 11 percent were in the retail trade sector. The labor earnings associated with this employment was estimated to be \$30.9 million. This represents 1 percent of the total labor earnings for the county. Average earnings per job for the travel industry in the county for 2015 were \$25,328. Average earnings per job for the travel industry were 36 percent the county average (\$71,220).

The tax revenue associated with the county's travel industry is estimated to be \$5.9 million with \$2.2 million (37 percent) going to local government and \$3.7 million (63 percent) going to state government.

**Data Source:** Dean Runyan Associates. 2016. Wyoming Travel Impacts: 2000-2015, Prepared for Wyoming Office of Tourism, Cheyenne, Wyoming.

# **TABLES**

<b>Table 1. Population, 2000-2015</b>			
Year	Campbell	Wyoming	U.S.
2000	33,979	494,300	282,162,411
2001	34,699	494,657	284,968,955
2002	36,193	500,017	287,625,193
2003	36,586	503,453	290,107,933
2004	36,907	509,106	292,805,298
2005	37,888	514,157	295,516,599
2006	39,497	522,667	298,379,912
2007	41,651	534,876	301,231,207
2008	42,846	546,043	304,093,966
2009	45,650	559,851	306,771,529
2010	46,244	564,513	309,348,193
2011	46,600	567,725	311,663,358
2012	47,881	576,765	313,998,379
2013	48,121	582,684	316,204,908
2014	48,243	583,642	318,563,456
2015	49,220	586,107	321,418,820
Change	15,241	91,807	39,256,409
Percent	44.9%	18.6%	13.9%
Source	Campbell	Wyoming	U.S.
Natural Increase	7,436	48,508	23,201,405
Net Migration	7,805	43,299	16,055,004
Total Change	15,241	91,807	39,256,409
Source: WY Department of A & I - Economic Analysis Division			
<b>Table 2. Primary Reason for Moving to Campbell County, 2000-2015</b>			
Reason	Number	Percent	
Job Related	2,489	64.9%	
Better Quality of Life	136	3.5%	
Friends or Relatives	587	15.3%	
Other	624	16.3%	
Total	3,835	100.0%	
Source: Wyoming Community Development Authority			

<b>Table 3. Age of Population, 2015</b>						
				Campbell	Wyoming	U.S.
Age	Campbell	Wyoming	U.S.	Percent	Percent	Percent
Under 5	3,852	38,395	19,907,281	7.8%	6.6%	6.2%
5 to 17	9,964	100,500	53,737,830	20.2%	17.1%	16.7%
18 to 24	4,283	56,514	31,219,892	8.7%	9.6%	9.7%
25 to 44	14,912	153,641	84,726,985	30.3%	26.2%	26.4%
45 to 64	12,535	152,358	84,065,980	25.5%	26.0%	26.2%
65 and over	3,674	84,699	47,760,852	7.5%	14.5%	14.9%
<b>Total</b>	<b>49,220</b>	<b>586,107</b>	<b>321,418,820</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Median Age	32.9	36.9	37.8			

Source: WY Department of A & I - Economic Analysis Division

<b>Table 4. Race of Population, 2015</b>						
				Campbell	Wyoming	U.S.
Race	Campbell	Wyoming	U.S.	Percent	Percent	Percent
White	46,685	543,292	251,868,011	94.8%	92.7%	78.4%
Black	373	8,286	41,902,829	0.8%	1.4%	13.0%
Native American	807	15,757	3,893,004	1.6%	2.7%	1.2%
Asian	312	6,072	15,781,779	0.6%	1.0%	4.9%
Pacific Islander	43	676	702,317	0.1%	0.1%	0.2%
Two or More	1,000	12,024	7,270,880	2.0%	2.1%	2.3%
<b>Total</b>	<b>49,220</b>	<b>586,107</b>	<b>321,418,820</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Identity	Campbell	Wyoming	U.S.	Percent	Percent	Percent
Hispanic	4,242	58,207	56,592,793	8.6%	9.9%	17.6%
Non-Hispanic	44,978	527,900	264,826,027	91.4%	90.1%	82.4%
<b>Total</b>	<b>49,220</b>	<b>586,107</b>	<b>321,418,820</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: WY Department of A & I - Economic Analysis Division

<b>Table 5. Per Capita Income, 2015</b>						
Type	Campbell	Wyoming	U.S.	Campbell Percent	Wyoming Percent	U.S. Percent
Net Earnings	\$42,256	\$32,578	\$30,729	77.3%	58.1%	63.9%
Transfer Payments	\$4,710	\$7,061	\$8,334	8.6%	12.6%	17.3%
Investment	\$7,688	\$16,442	\$9,049	14.1%	29.3%	18.8%
<b>Total</b>	<b>\$54,654</b>	<b>\$56,081</b>	<b>\$48,112</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
	Deflated	Deflated	Deflated	Deflated	Deflated	Deflated
	Campbell	Campbell	Campbell	Campbell	Wyoming	U.S.
<b>Year</b>	<b>Earnings</b>	<b>Transfer</b>	<b>Investment</b>	<b>Total</b>	<b>Total</b>	<b>Total</b>
2000	\$25,416	\$2,759	\$5,075	\$33,249	\$35,373	\$37,371
2001	\$30,053	\$2,923	\$5,283	\$38,260	\$36,632	\$37,658
2002	\$29,265	\$2,926	\$4,477	\$36,668	\$36,943	\$37,412
2003	\$28,331	\$3,104	\$4,664	\$36,098	\$38,351	\$37,692
2004	\$28,999	\$3,217	\$4,936	\$37,152	\$39,244	\$38,505
2005	\$30,963	\$3,235	\$6,127	\$40,325	\$41,562	\$39,031
2006	\$35,691	\$3,233	\$6,291	\$45,215	\$45,571	\$40,230
2007	\$35,748	\$3,264	\$5,845	\$44,857	\$45,942	\$40,910
2008	\$39,512	\$3,723	\$6,753	\$49,988	\$48,910	\$41,394
2009	\$34,739	\$3,839	\$5,494	\$44,072	\$43,549	\$39,376
2010	\$38,439	\$4,152	\$6,168	\$48,759	\$44,901	\$39,791
2011	\$42,871	\$3,958	\$7,012	\$53,840	\$47,892	\$41,092
2012	\$40,765	\$3,816	\$7,453	\$52,035	\$50,125	\$42,073
2013	\$37,501	\$3,916	\$6,728	\$48,145	\$49,271	\$41,587
2014	\$39,680	\$4,028	\$7,011	\$50,719	\$51,461	\$42,649
2015	\$38,415	\$4,282	\$6,989	\$49,686	\$50,984	\$43,739
Change	\$13,000	\$1,523	\$1,914	\$16,437	\$15,611	\$6,368
Percent of Total	79.1%	9.3%	11.6%	100.0%	N.A.	N.A.
Percent Change	51.1%	55.2%	37.7%	49.4%	44.1%	17.0%
Source: Bureau of Economic Analysis						

Degree	Campbell	Wyoming	U.S.	Campbell Percent	Wyoming Percent	U.S. Percent
No High School Degree	2,614	29,566	28,229,094	8.7%	7.7%	13.3%
High School Graduate	10,385	112,872	58,722,528	34.4%	29.4%	27.8%
Some College	7,981	103,479	44,529,161	26.4%	26.9%	21.1%
Associate Degree	3,364	39,555	17,029,467	11.1%	10.3%	8.1%
Bachelor's Degree	4,438	65,787	39,166,047	14.7%	17.1%	18.5%
Graduate or Professional	1,396	33,013	23,786,225	4.6%	8.6%	11.2%
<b>Total Population 25 Yrs or Older</b>	<b>30,178</b>	<b>384,272</b>	<b>211,462,522</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
High School Degree or Higher	27,564	354,706	183,233,428	91.3%	92.3%	86.7%
Bachelor's Degree or Higher	5,834	98,800	62,952,272	19.3%	25.7%	29.8%

Source: WY Department of A & I - Economic Analysis Division

Year	Campbell W&S	Campbell SelfEmpl	Campbell Total	Wyoming Total	U.S. Total
2000	20,447	2,815	23,262	324,018	165,370,800
2001	22,473	4,760	27,233	330,154	165,519,200
2002	22,872	4,743	27,615	334,232	165,159,100
2003	22,553	4,883	27,436	337,010	166,026,500
2004	23,213	4,903	28,116	343,853	169,036,700
2005	24,952	5,163	30,115	354,786	172,557,400
2006	27,608	5,512	33,120	370,803	176,123,600
2007	29,394	5,962	35,356	389,074	179,885,700
2008	31,500	6,368	37,868	399,728	179,639,900
2009	30,952	6,333	37,285	388,641	174,233,700
2010	29,779	6,590	36,369	385,217	173,034,700
2011	29,410	6,806	36,216	390,568	176,278,700
2012	29,753	7,209	36,962	396,774	179,081,700
2013	29,217	7,460	36,677	400,424	182,408,100
2014	30,511	7,486	37,997	406,028	186,168,100
2015	29,846	7,645	37,491	406,576	190,195,400
Percent Change 2000-2014	46.0%	171.6%	61.2%	25.5%	15.0%

Source: Bureau of Economic Analysis

**Table 8. Campbell County Employment by Sector, 2015**

Sector	Jobs	Percent	LQ
Mining (Including Oil & Gas)	8,781	23.4%	29.61
Local Government	4,805	12.8%	1.73
Retail Trade	3,316	8.8%	0.88
Construction	3,194	8.5%	1.63
Accommodations & Food Service	2,440	6.5%	0.88
Wholesale Trade	1,896	5.1%	1.42
Real Estate, Rental, & Leasing	1,718	4.6%	1.00
Transportation & Warehousing	1,595	4.3%	1.23
Other Services	1,518	4.0%	0.70
Management Services	1,428	3.8%	0.50
Health Care & Social Assistance	1,364	3.6%	0.32
Professional Services	1,171	3.1%	0.45
Agriculture	898	2.4%	1.72
Manufacturing	730	1.9%	0.28
Finance & Insurance	722	1.9%	0.38
Arts, Entertainment, & Recreation	395	1.1%	0.47
Utilities	381	1.0%	3.28
Military	258	0.7%	0.67
Information	253	0.7%	0.38
Educational Services	194	0.5%	0.21
State Government	183	0.5%	0.18
Forestry, Fishing, & Ag Support	164	0.4%	0.86
Federal - Civilian	87	0.2%	0.16
<b>Total</b>	<b>37,491</b>	<b>100.0%</b>	<b>N.A.</b>
Source: Bureau of Economic Analysis			



Sector	2001	2015	Change 2001-2015	Percent of Change	Percent Change
Mining (Including Oil & Gas)	6,640	8,781	2,141	20.9%	32.2%
Local Government	3,006	4,805	1,799	17.5%	59.8%
Real Estate, Rental, & Leasing	714	1,718	1,004	9.8%	140.6%
Wholesale Trade	968	1,896	928	9.0%	95.9%
Accommodations & Food Service	1,752	2,440	688	6.7%	39.3%
Retail Trade	2,637	3,316	679	6.6%	25.7%
Transportation & Warehousing	1,065	1,595	530	5.2%	49.8%
Other Services	1,053	1,518	465	4.5%	44.2%
Construction	2,895	3,194	299	2.9%	10.3%
Professional Services	898	1,171	273	2.7%	30.4%
Agriculture	674	898	224	2.2%	33.2%
Utilities	158	381	223	2.2%	141.1%
Manufacturing	514	730	216	2.1%	42.0%
Arts, Entertainment, & Recreation	203	395	192	1.9%	94.6%
Finance & Insurance	535	722	187	1.8%	35.0%
Health Care & Social Assistance	1,183	1,364	181	1.8%	15.3%
Management Services	1,257	1,428	171	1.7%	13.6%
Educational Services	78	194	116	1.1%	148.7%
Military	200	258	58	0.6%	29.0%
Information	246	253	7	0.1%	2.8%
State Government	181	183	2	0.0%	1.1%
Federal - Civilian	86	87	1	0.0%	1.2%
Forestry, Fishing, & Ag Support	290	164	-126	-1.2%	-43.4%
<b>Total</b>	<b>27,233</b>	<b>37,491</b>	<b>10,258</b>	<b>100.0%</b>	<b>37.7%</b>
Source: Bureau of Economic Analysis					

**Table 10. Average Earnings Per Job, 2000-2015**

	Deflated	Deflated	Deflated
Year	Campbell	Wyoming	U.S.
2000	\$47,480	\$36,862	\$48,821
2001	\$48,693	\$38,189	\$49,618
2002	\$49,080	\$38,761	\$49,904
2003	\$48,956	\$39,639	\$50,395
2004	\$49,938	\$39,392	\$51,086
2005	\$51,401	\$39,997	\$50,786
2006	\$57,172	\$42,786	\$51,158
2007	\$57,098	\$43,041	\$50,670
2008	\$60,406	\$46,293	\$51,011
2009	\$57,934	\$45,203	\$50,184
2010	\$64,580	\$47,005	\$51,247
2011	\$70,001	\$48,173	\$51,568
2012	\$67,512	\$48,667	\$52,225
2013	\$63,926	\$48,963	\$51,902
2014	\$65,336	\$50,166	\$52,233
2015	\$64,747	\$48,978	\$52,936
Percent Change	36.4%	32.9%	8.4%
Source: Bureau of Economic Analysis			

**Table 10a. Average Earnings Per Job for Campbell County, 2015**

Sector	Jobs	Earnings	
		(\$1,000)	AEPJ
Mining	8,781	\$1,134,240	\$129,170
Utilities	381	\$47,958	\$125,874
Federal - Civilian	87	\$7,610	\$87,471
Transportation & Warehousing	1,595	\$137,609	\$86,275
Wholesale Trade	1,896	\$159,988	\$84,382
State Government	183	\$14,806	\$80,907
Local Government	4,805	\$352,523	\$73,366
Manufacturing	730	\$52,781	\$72,303
Construction	3,194	\$203,324	\$63,658
Professional Services	1,171	\$64,151	\$54,783
Management Services	1,428	\$78,060	\$54,664
Health Care & Social Assistance	1,364	\$70,306	\$51,544
Finance & Insurance	722	\$33,147	\$45,910
Information	253	\$10,964	\$43,336
Other Services	1,518	\$65,662	\$43,256
Retail Trade	3,316	\$124,729	\$37,614
Military	258	\$7,451	\$28,880
Educational Services	194	\$5,248	\$27,052
Real Estate, Rental, & Leasing	1,718	\$43,856	\$25,527
Accommodations & Food Service	2,440	\$52,507	\$21,519
Forestry, Fishing, & Ag Support	164	\$2,644	\$16,121
Arts, Entertainment, & Recreation	395	\$3,225	\$8,165
Agriculture	898	-\$2,676	-\$2,980
<b>Total</b>	<b>37,491</b>	<b>\$2,670,113</b>	<b>\$71,220</b>
Source: Bureau of Economic Analysis			

Sector	Jobs	AEPJ	Earnings (\$1,000)	Percent
Mining	8,781	\$129,170	\$1,134,240	42.5%
Local Government	4,805	\$73,366	\$352,523	13.2%
Construction	3,194	\$63,658	\$203,324	7.6%
Wholesale Trade	1,896	\$84,382	\$159,988	6.0%
Transportation & Warehousing	1,595	\$86,275	\$137,609	5.2%
Retail Trade	3,316	\$37,614	\$124,729	4.7%
Management Services	1,428	\$54,664	\$78,060	2.9%
Health Care & Social Assistance	1,364	\$51,544	\$70,306	2.6%
Other Services	1,518	\$43,256	\$65,662	2.5%
Professional Services	1,171	\$54,783	\$64,151	2.4%
Manufacturing	730	\$72,303	\$52,781	2.0%
Accommodations & Food Service	2,440	\$21,519	\$52,507	2.0%
Utilities	381	\$125,874	\$47,958	1.8%
Real Estate, Rental, & Leasing	1,718	\$25,527	\$43,856	1.6%
Finance & Insurance	722	\$45,910	\$33,147	1.2%
State Government	183	\$80,907	\$14,806	0.6%
Information	253	\$43,336	\$10,964	0.4%
Federal - Civilian	87	\$87,471	\$7,610	0.3%
Military	258	\$28,880	\$7,451	0.3%
Educational Services	194	\$27,052	\$5,248	0.2%
Arts, Entertainment, & Recreation	395	\$8,165	\$3,225	0.1%
Forestry, Fishing, & Ag Support	164	\$16,121	\$2,644	0.1%
Agriculture	898	-\$2,980	-\$2,676	-0.1%
<b>Total</b>	<b>37,491</b>	<b>\$71,220</b>	<b>2,670,113</b>	<b>100.0%</b>
Source: Bureau of Economic Analysis				

<b>Table 12. Land Ownership in Campbell County, 2012</b>			
Owner	Acres	Percent of Total	Percent of Type
National Park Service	0	0.0%	0.0%
Forest Service	140,352	4.6%	38.5%
BLM	224,128	7.3%	61.5%
Bureau of Reclamation	0	0.0%	0.0%
<b>Total Federal</b>	<b>364,480</b>	<b>11.9%</b>	<b>100.0%</b>
State Trust Lands	185,664	6.0%	100.0%
Recreation Commission	0	0.0%	0.0%
Fish & Game	0	0.0%	0.0%
<b>Total State</b>	<b>185,664</b>	<b>6.0%</b>	<b>100.0%</b>
County	1,984	0.1%	53.4%
Cities	1,216	0.0%	32.8%
School Dist. & Colleges	512	0.0%	13.8%
<b>Total Local Government</b>	<b>3,712</b>	<b>0.1%</b>	<b>100.0%</b>
<b>Total Private</b>	<b>2,508,480</b>	<b>81.6%</b>	<b>100.0%</b>
<b>Other</b>	<b>11,392</b>	<b>0.4%</b>	<b>100.0%</b>
<b>Total Land Area</b>	<b>3,073,728</b>	<b>100.0%</b>	

Source: WEAD County Profiles & WY Department of Revenue 2012 Annual Report

**Table 13. Acres of Taxable Agricultural Land in Campbell County**

Classification	Acres	Percent
Irrigated Lands	928	0.0%
Dry Farm Land	95,732	4.2%
Range Land	2,162,884	95.7%
<b>Total Taxable Ag Land</b>	<b>2,259,544</b>	<b>100.0%</b>

Source: Wyoming Department of Revenue 2012 Annual Report

**Table 14. Management Designations of Federal Land in Campbell County**

Type	Acres	Percent
Protected	0	0.0%
Restricted	25,563	6.6%
General Use	363,544	93.4%
<b>Total Federal Lands</b>	<b>389,107</b>	<b>100.0%</b>

**Table 15. Campbell County Government Revenue, FY2016**

Source	Amount	Percent
Taxes	\$79,574,328	67.5%
State Aid	\$21,232,740	18.0%
Charges for Services	\$9,913,484	8.4%
Direct Federal Aid	\$4,238,467	3.6%
Miscellaneous Revenue	\$1,830,731	1.6%
Other Local Government	\$1,166,461	1.0%
<b>Total</b>	<b>\$117,956,211</b>	<b>100.0%</b>

Source: Wyoming Department of Audit

**Table 16. Campbell County Assessed Valuation, 2016**

Property Type	Amount	Percent
Minerals	\$4,203,511,251	79.5%
Industrial Property	\$455,444,850	8.6%
Residential Property	\$271,802,470	5.1%
Utilities	\$235,450,170	4.5%
Commercial Property	\$108,016,653	2.0%
Agricultural Lands	\$14,277,455	0.3%
<b>Total Valuation</b>	<b>\$5,288,502,849</b>	<b>100.0%</b>
Crude Oil	\$884,949,435	21.1%
Natural Gas	\$153,744,628	3.7%
Coal	\$3,149,810,399	74.9%
Uranium	\$9,213,282	0.2%
Sand & Gravel	\$5,793,507	0.1%
<b>Total Minerals</b>	<b>\$4,203,511,251</b>	<b>100.0%</b>

Source: Wyoming Department of Revenue

Industry	Sales Tax	Use Tax	Sales & Use	Percent
Mining	\$32,647,791	\$4,570,902	\$37,218,693	28.7%
Retail Trade	\$28,168,792	\$778,693	\$28,947,485	22.3%
Wholesale Trade	\$19,961,711	\$239,371	\$20,201,082	15.6%
Public Administration	\$6,515,293	\$2,531,891	\$9,047,184	7.0%
Other Services	\$7,921,031	\$125,573	\$8,046,604	6.2%
Financial Activities	\$7,806,001	\$48,961	\$7,854,962	6.1%
Leisure & Hospitality	\$6,041,115	\$90,801	\$6,131,916	4.7%
Utilities	\$2,970,317	\$1,302,256	\$4,272,573	3.3%
Manufacturing	\$2,805,472	\$84,343	\$2,889,815	2.2%
Construction	\$1,595,276	\$907,127	\$2,502,403	1.9%
Information	\$1,319,613	\$40,948	\$1,360,561	1.0%
Pro & Business Services	\$841,020	\$35,886	\$876,906	0.7%
Transport & Warehouse	\$72,045	\$368,089	\$440,134	0.3%
Agr & Other	\$36,833	\$0	\$36,833	0.0%
Education & Health	\$5,967	\$598	\$6,565	0.0%
<b>Total</b>	<b>\$118,708,277</b>	<b>\$11,125,439</b>	<b>\$129,833,716</b>	<b>100.0%</b>

Source: Wyoming Economic Analysis Division

Source	Amount	Percent
PILT	\$684,330	61.1%
Forest Service Payments	\$273,584	24.4%
BLM Payments	\$161,352	14.4%
<b>Total</b>	<b>\$1,119,266</b>	<b>100.0%</b>
<b>Distributions</b>	<b>Amount</b>	<b>Percent</b>
County Government	\$774,715	69.2%
Local School Districts	\$0	0.0%
Grazing Districts	\$70,967	6.3%
Resource Advisory Councils	\$0	0.0%
Other	\$273,584	24.4%
<b>Total</b>	<b>\$1,119,266</b>	<b>100.0%</b>

Source: Economic Profile System - Human Dimension Toolkit

**Table 19. Campbell County Government Costs, FY2016**

County Costs	Amount	Percent	Per Capita
Parks/Recreation/Museum	\$9,633,831	10.3%	\$195.73
Construction	\$8,908,880	9.5%	\$181.00
Jail	\$8,859,616	9.5%	\$180.00
Social Services	\$8,266,503	8.8%	\$167.95
County Sheriff	\$7,815,534	8.3%	\$158.79
Road and Bridge	\$6,575,577	7.0%	\$133.60
Capital	\$5,239,301	5.6%	\$106.45
Fire	\$4,623,401	4.9%	\$93.93
Library	\$3,768,271	4.0%	\$76.56
County Administration	\$3,364,792	3.6%	\$68.36
County Attorney	\$3,308,326	3.5%	\$67.22
Courthouse	\$2,939,658	3.1%	\$59.72
Finacial Administration	\$2,877,801	3.1%	\$58.47
Trash Colletion/Landfill	\$2,720,345	2.9%	\$55.27
Health (Not Hospital)	\$2,342,882	2.5%	\$47.60
County Clerk	\$1,762,266	1.9%	\$35.80
Distict Court	\$1,611,453	1.7%	\$32.74
County Surveyor	\$1,519,791	1.6%	\$30.88
County Airport	\$1,449,083	1.5%	\$29.44
County Treasurer	\$1,348,843	1.4%	\$27.40
County Assessor	\$1,202,567	1.3%	\$24.43
Juvenile Probation	\$1,028,496	1.1%	\$20.90
Fair	\$542,535	0.6%	\$11.02
Agricultural Department	\$447,006	0.5%	\$9.08
Natural Resources	\$333,261	0.4%	\$6.77
County Commissioners	\$332,958	0.4%	\$6.76
County Coroner	\$302,401	0.3%	\$6.14
Circuit/Drug Court	\$198,937	0.2%	\$4.04
Civil Defense/Emergency	\$189,462	0.2%	\$3.85
Elections	\$137,075	0.1%	\$2.78
Other Expenses	\$45,000	0.0%	\$0.91
<b>Total</b>	<b>\$93,695,852</b>	<b>100.0%</b>	<b>\$1,903.61</b>
Source: Wyoming Department of Audit			



<b>Table 20. Campbell County Mining Industry</b>						
<b>Mineral Production 2015</b>						
Type	Production					
Coal (Tons)	340,675,046					
Oil (Barrels)	22,924,542					
Gas (MCF)	96,144,468					
Uranium (Pounds)	416,058					
Sand & Gravel (Tons)	2,850,160					
Source: Wyoming Oil & Gas Conservation Commission & State Inspector of Mines of Wyoming						
<b>Tax Revenue 2016 (2015 Production)</b>						
	Assessed	Percent	County Revenue	K-12 Revenue	Special Districts	Total Revenue
	Valuation		(11.140 Mills)	(44.500 Mills)	(3.948 Mills)	(59.588 Mills)
Crude Oil	\$884,949,435	18.7%	\$9,858,337	\$39,380,250	\$3,493,780	\$52,732,367
Natural Gas	\$153,744,628	3.3%	\$1,712,715	\$6,841,636	\$606,984	\$9,161,335
Coal	\$3,149,810,399	66.7%	\$35,088,888	\$140,166,563	\$12,435,451	\$187,690,902
Uranium	\$9,213,282	0.2%	\$102,636	\$409,991	\$36,374	\$549,001
Sand & Gravel	\$5,793,507	0.1%	\$64,540	\$257,811	\$22,873	\$345,223
O&G Extraction	\$132,767,501	2.8%	\$1,479,030	\$5,908,154	\$524,166	\$7,911,350
Coal Mines	\$302,376,462	6.4%	\$3,368,474	\$13,455,753	\$1,193,782	\$18,018,009
Gas Pipelines	\$8,452,264	0.2%	\$94,158	\$376,126	\$33,370	\$503,654
Liquid Pipelines	\$14,620,286	0.3%	\$162,870	\$650,603	\$57,721	\$871,194
Railroads	\$59,751,994	1.3%	\$665,637	\$2,658,964	\$235,901	\$3,560,502
Total Minerals	\$4,721,479,758	100.0%	\$52,597,285	\$210,105,849	\$18,640,402	\$281,343,536
Percent			18.7%	74.7%	6.6%	100.0%
Source: Wyoming Department of Revenue						
<b>Employment 2015</b>						
	Mining	Total	Percent Mining			
Jobs	8,781	37,491	23.4%			
Labor Income	\$1,134,240,000	\$2,670,113,000	42.5%			
Average Earnings/Job	\$129,170	\$71,220	181.4%			
Source: Bureau of Economic Analysis						

<b>Table 21. Campbell County Agricultural Industry</b>				
<b>Physical Characteristics 2012</b>				
Land Use	Acres	Percent	Number of Farms	Average Size (Acres)
Total Cropland	140,702	4.9%		
Total Woodland	26,934	0.9%		
Grazing Land	2,696,251	93.7%		
Farmstead	14,130	0.5%		
<b>Total Land</b>	<b>2,878,017</b>	<b>100.0%</b>	<b>744</b>	<b>3,868</b>
	<b>Cattle &amp; Calves</b>	<b>Sheep &amp; Lambs</b>	<b>Total Head</b>	
Inventory	79,670	27,597	107,267	
	<b>Land &amp; Buildings</b>	<b>Machinery &amp; Equipment</b>	<b>Combined Investment</b>	
Market Value	\$1,665,930,000	\$70,412,000	\$1,736,342,000	
Average Per Farm	\$2,239,153	\$94,640	\$2,333,793	
Source: 2012 Census of Agriculture				
<b>Gross Revenue</b>				
Type	Amount	Percent		
Cash Receipts - Livestock	\$64,207,000	83.5%		
Cash Receipts - Crops	\$3,228,000	4.2%		
Government Payments	\$4,155,000	5.4%		
Miscellaneous Income	\$5,298,000	6.9%		
<b>Total Gross Revenue</b>	<b>\$76,888,000</b>	<b>100.0%</b>		
Source: Bureau of Economic Analysis				
<b>Employment</b>				
	Agriculture	County Total	Percent Agriculture	
Jobs	898	37,491	2.4%	
Labor Income	-\$2,676,000	\$2,670,113,000	-0.1%	
Average Earnings/Job	-\$2,980	\$71,220	-4.2%	
Source: Bureau of Economic Analysis				

**Table 22. Campbell County Travel Industry 2015**

<b>Visitor Spending</b>					
	Amount				
Accommodation	(Million\$)	Percent			
Hotel, Motel	\$74.0	63.0%			
Campground	\$16.5	14.1%			
Private Home	\$16.6	14.1%			
Vacation Home	\$1.4	1.2%			
Day Travel	\$8.9	7.6%			
<b>Total</b>	<b>\$117.4</b>	<b>100.0%</b>			
	Amount				
Purchases	(Million\$)	Percent			
Accommodations	\$32.5	27.7%			
Food Service	\$24.3	20.7%			
Food Stores	\$7.1	6.0%			
Local Tran. & Gas	\$24.4	20.8%			
Art, Ent. & Rec	\$14.3	12.2%			
Retail Sales	\$13.7	11.7%			
Air Transportation	\$1.1	0.9%			
<b>Total</b>	<b>\$117.4</b>	<b>100.0%</b>			
<b>Employment</b>					
Sector	Jobs	Percent	Earnings (Million\$)	Percent	Ave. Earn Per Job
Accom & Food Service	670	54.9%	\$17.6	57.0%	\$26,269
Arts, Ent. & Rec.	380	31.1%	\$8.6	27.8%	\$22,632
Retail	140	11.5%	\$3.4	11.0%	\$24,286
Ground Tran	20	1.6%	\$0.7	2.3%	\$35,000
Visitor Air Tran	0	0.0%	\$0.2	0.6%	N.A.
Other Travel	10	0.8%	\$0.4	1.3%	\$40,000
<b>Total</b>	<b>1,220</b>	<b>100.0%</b>	<b>\$30.9</b>	<b>100.0%</b>	<b>\$25,328</b>
<b>Tax Revenue</b>					
	Amount				
	(Million\$)	Percent			
Local Tax Revenue	\$2.2	37.3%			
State Tax Revenue	\$3.7	62.7%			
<b>Total Revenue</b>	<b>\$5.9</b>	<b>100.0%</b>			

**Attachment #13**  
**Campbell County Valuation, Revenue, Mineral Production 1994-2023**

## Campbell County Valuation, Revenue and Mineral Production 1994 - 2023

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Assessed Valuation</b>												
	<b>Attachment #13</b>											
	<b>Campbell County Valuation, Revenue, Mineral Production 1994-2023</b>											
Coal	\$ 776,838,701	\$ 807,175,574	\$ 907,582,112	\$ 975,822,222	\$ 1,022,811,222	\$ 1,082,222,222	\$ 1,142,222,222	\$ 1,202,222,222	\$ 1,262,222,222	\$ 1,322,222,222	\$ 1,382,222,222	\$ 1,442,222,222
Oil	\$ 279,475,089	\$ 224,243,204	\$ 245,002,663	\$ 321,881,679	\$ 273,548,060	\$ 145,919,910	\$ 214,814,708	\$ 330,297,473	\$ 230,123,151	\$ 214,987,342	\$ 245,971,692	\$ 306,086,485
Gas	\$ 21,883,747	\$ 21,691,612	\$ 20,037,895	\$ 29,135,435	\$ 42,761,158	\$ 55,332,829	\$ 98,887,155	\$ 434,597,198	\$ 645,075,746	\$ 508,260,796	\$ 948,142,152	\$ 1,082,662,929
Uranium	\$ -	\$ -	\$ 2,475,954	\$ 6,895,239	\$ 5,378,451	\$ 2,756,849	\$ 1,579,191	\$ 197,449	\$ 37,505	Included w/ Misc. Minerals		
Misc Minerals	\$ 2,414,117	\$ 1,720,679	\$ 2,011,773	\$ 1,984,964	\$ 2,490,835	\$ 2,783,130	\$ 2,985,601	\$ 2,561,259	\$ 3,111,354	\$ 2,554,234	\$ 2,990,767	\$ 2,885,820
Public Utilities	\$ 27,216,984	\$ 29,204,791	\$ 28,518,833	\$ 28,452,056	\$ 27,515,156	\$ 26,911,607	\$ 27,785,814	\$ 27,786,091	\$ 34,296,807	\$ 38,190,935	\$ 37,471,084	\$ 33,579,460
Telephone	\$ 2,584,732	\$ 2,387,543	\$ 2,452,737	\$ 2,441,556	\$ 2,722,119	\$ 2,920,360	\$ 3,458,834	\$ 3,534,822	\$ 4,249,437	\$ 3,795,645	\$ 3,634,329	\$ 2,954,592
Pipelines	\$ 3,442,381	\$ 3,320,370	\$ 4,001,780	\$ 4,320,985	\$ 4,532,738	\$ 5,874,544	\$ 9,075,104	\$ 9,874,444	\$ 12,389,747	\$ 12,406,066	\$ 11,618,493	\$ 10,868,200
REA's	\$ 3,837,269	\$ 3,703,835	\$ 3,533,574	\$ 3,509,837	\$ 3,622,280	\$ 2,964,368	\$ 3,111,636	\$ 3,258,641	\$ 4,926,779	\$ 9,249,167	\$ 10,282,581	\$ 10,777,822
Railroads	\$ 8,645,388	\$ 9,771,522	\$ 13,296,233	\$ 12,428,404	\$ 13,660,659	\$ 17,358,945	\$ 18,215,195	\$ 19,641,992	\$ 20,487,253	\$ 21,113,731	\$ 21,875,036	\$ 18,816,848
Cable Sat Co	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local	\$ 216,458,092	\$ 228,410,570	\$ 232,548,500	\$ 244,204,947	\$ 247,972,417	\$ 271,173,749	\$ 268,711,291	\$ 317,224,639	\$ 380,367,011	\$ 395,714,441	\$ 415,587,847	\$ 452,603,785
<b>Total Assessed Valuation</b>	<b>\$ 1,342,796,500</b>	<b>\$ 1,331,629,700</b>	<b>\$ 1,461,667,279</b>	<b>\$ 1,587,776,214</b>	<b>\$ 1,495,260,165</b>	<b>\$ 1,435,820,219</b>	<b>\$ 1,625,064,422</b>	<b>\$ 2,214,581,236</b>	<b>\$ 2,563,944,782</b>	<b>\$ 2,686,679,191</b>	<b>\$ 3,258,728,319</b>	<b>\$ 3,660,527,493</b>
<b>Revenue/Budget</b>												
Mill Levy	11.26826217	11.20797808	11.20344663	11.034	11.038	11.175	11.12991076	11.00309548	11.00647872	11.005	11.005	11.005
Coal Mill Revenue	\$ 8,753,622	\$ 9,046,806	\$ 10,170,347	\$ 10,289,438	\$ 9,614,719	\$ 10,077,882	\$ 10,867,689	\$ 11,724,978	\$ 13,525,641	\$ 16,291,877	\$ 17,180,503	\$ 19,140,904
Local Mill Revenue	\$ 2,439,107	\$ 2,560,021	\$ 2,605,345	\$ 2,694,557	\$ 2,737,120	\$ 3,030,367	\$ 2,990,733	\$ 3,490,453	\$ 4,186,501	\$ 4,354,837	\$ 4,573,544	\$ 4,980,905
Oil Mill Revenue	\$ 3,149,199	\$ 2,513,313	\$ 2,744,874	\$ 3,551,642	\$ 3,019,423	\$ 1,630,655	\$ 2,390,869	\$ 3,634,295	\$ 2,532,846	\$ 2,365,936	\$ 2,706,918	\$ 3,368,482
Gas Mill Revenue	\$ 246,592	\$ 243,119	\$ 224,493	\$ 321,480	\$ 471,998	\$ 618,344	\$ 1,100,605	\$ 4,781,914	\$ 7,100,012	\$ 5,593,410	\$ 10,434,304	\$ 11,914,706
Other Mill Revenue	\$ 542,464	\$ 561,618	\$ 630,652	\$ 662,405	\$ 661,422	\$ 688,043	\$ 736,927	\$ 735,609	\$ 875,003	\$ 960,844	\$ 967,035	\$ 879,110
<b>Total Mill Revenue</b>	<b>\$ 15,130,983</b>	<b>\$ 14,924,876</b>	<b>\$ 16,375,711</b>	<b>\$ 17,519,523</b>	<b>\$ 16,504,682</b>	<b>\$ 16,045,291</b>	<b>\$ 18,086,822</b>	<b>\$ 24,367,249</b>	<b>\$ 28,220,004</b>	<b>\$ 29,566,904</b>	<b>\$ 35,862,305</b>	<b>\$ 40,284,105</b>
Total County Budget	\$ 39,989,175	\$ 48,083,989	\$ 47,067,186	\$ 37,797,185	\$ 44,135,838	\$ 42,006,139	\$ 44,376,085	\$ 58,515,177	\$ 80,875,157	\$ 83,702,177	\$ 86,958,494	\$ 88,268,088
Mill % of Total Budget	37.8%	31.0%	34.8%	46.4%	37.4%	38.2%	40.8%	41.6%	34.9%	35.3%	41.2%	45.6%
Coal Mill % of Total Budget	21.9%	18.8%	21.6%	27.2%	21.8%	24.0%	24.5%	20.0%	16.7%	19.5%	19.8%	21.7%
Coal Revenue % Mill	57.9%	60.6%	62.1%	58.7%	58.3%	62.8%	60.1%	48.1%	47.9%	55.1%	47.9%	47.5%
Local Mill % of Total Budget	6.1%	5.3%	5.5%	7.1%	6.2%	7.2%	6.7%	6.0%	5.2%	5.2%	5.3%	5.6%
Local Revenue % Mill	16.1%	17.2%	15.9%	15.4%	16.6%	18.9%	16.5%	14.3%	14.8%	14.7%	12.8%	12.4%
Oil Mill % of Total Budget	7.9%	5.2%	5.8%	9.4%	6.8%	3.9%	5.4%	6.2%	3.1%	2.8%	3.1%	3.8%
Oil Revenue % Mill	20.8%	16.8%	16.8%	20.3%	18.3%	10.2%	13.2%	14.9%	9.0%	8.0%	7.5%	8.4%
Gas Mill % of Total Budget	0.6%	0.5%	0.5%	0.9%	1.1%	1.5%	2.5%	8.2%	8.8%	6.7%	12.0%	13.5%
Gas Revenue % Mill	1.6%	1.6%	1.4%	1.8%	2.9%	3.9%	6.1%	19.6%	25.2%	18.9%	29.1%	29.6%
Other Mill % of Total Budget	1.4%	1.2%	1.3%	1.8%	1.5%	1.6%	1.7%	1.3%	1.1%	1.1%	1.1%	1.0%
Other Revenue % Mill	3.6%	3.8%	3.9%	3.8%	4.0%	4.3%	4.1%	3.0%	3.1%	3.2%	2.7%	2.2%
<b>Major Mineral Production</b>												
Coal (Tons)	181,557,042	205,507,104	232,143,182	245,378,805	246,315,813	274,133,524	294,293,080	299,650,294	329,328,478	332,953,277	336,724,545	360,149,115
Oil (BBLs)	21,555,814	18,053,551	17,333,352	17,459,602	16,962,229	15,471,889	13,938,974	12,833,821	11,348,229	10,485,666	9,823,000	9,152,595
Gas (MCF)	15,048,316	16,406,813	18,193,232	20,841,661	26,763,962	44,481,982	73,869,434	162,691,508	253,524,685	290,202,386	351,568,136	337,011,602
Coal Revenue (\$/Ton)	\$ 0.048	\$ 0.044	\$ 0.044	\$ 0.042	\$ 0.039	\$ 0.037	\$ 0.037	\$ 0.039	\$ 0.041	\$ 0.049	\$ 0.051	\$ 0.053
Oil Revenue (\$/BBLs)	\$ 0.146	\$ 0.139	\$ 0.158	\$ 0.203	\$ 0.178	\$ 0.105	\$ 0.172	\$ 0.283	\$ 0.223	\$ 0.226	\$ 0.276	\$ 0.368
Gas Revenue (\$/MCF)	\$ 0.016	\$ 0.015	\$ 0.012	\$ 0.015	\$ 0.018	\$ 0.014	\$ 0.015	\$ 0.029	\$ 0.028	\$ 0.019	\$ 0.030	\$ 0.035

## Campbell County Valuation, Revenue and Mineral Production 1994 - 2023

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Assessed Valuation</b>												
	<b>Attachment #13</b>											
	<b>Campbell County Valuation, Revenue, Mineral Production 1994-2023</b>											
Coal	\$ 1,995,307,606	\$ 2,532,604,861	\$ 2,859,693,924	\$ 3,011,199,944	\$ 3,096,111,194	\$ 3,047,893,263	\$ 3,101,200,200	\$ 3,297,783,706	\$ 3,348,921,099	\$ 3,149,810,399	\$ 2,458,928,638	
Oil	\$ 374,223,765	\$ 433,622,684	\$ 475,025,590	\$ 652,781,390	\$ 364,821,149	\$ 495,470,897	\$ 656,493,579	\$ 717,200,722	\$ 1,018,658,450	\$ 1,406,213,995	\$ 884,949,435	\$ 643,389,954
Gas	\$ 1,324,906,068	\$ 932,389,840	\$ 654,460,917	\$ 844,766,895	\$ 340,034,433	\$ 431,608,362	\$ 422,726,277	\$ 253,122,788	\$ 292,208,275	\$ 355,242,927	\$ 153,744,628	\$ 131,128,801
Uranium	\$ 29,437	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,691,844	\$ 7,225,763	\$ 8,718,555	\$ 11,870,446	\$ 9,213,282	\$ 6,282,180
Misc Minerals	\$ 3,338,070	\$ 4,829,626	\$ 5,002,535	\$ 5,865,430	\$ 5,854,400	\$ 3,781,691	\$ 5,292,590	\$ 4,995,279	\$ 8,591,087	\$ 6,294,880	\$ 5,793,507	\$ 4,635,151
Public Utilities	\$ 35,112,595	\$ 41,216,369	\$ 38,672,113	\$ 55,092,824	\$ 63,598,959	\$ 60,099,469	\$ 66,634,746	\$ 64,741,256	\$ 62,593,889	\$ 61,198,625	\$ 67,660,286	\$ 68,943,276
Telephone	\$ 3,033,267	\$ 3,654,565	\$ 3,207,239	\$ 3,321,282	\$ 2,959,862	\$ 2,176,744	\$ 1,814,928	\$ 1,940,137	\$ 2,071,655	\$ 2,310,169	\$ 1,893,504	\$ 1,695,394
Pipelines	\$ 9,124,661	\$ 8,117,554	\$ 10,500,816	\$ 10,208,059	\$ 9,163,147	\$ 25,568,134	\$ 24,559,683	\$ 19,979,674	\$ 14,584,785	\$ 17,239,438	\$ 24,046,540	\$ 25,332,731
REA's	\$ 11,629,786	\$ 13,084,753	\$ 21,412,547	\$ 26,253,183	\$ 67,712,978	\$ 71,789,273	\$ 64,416,939	\$ 71,083,420	\$ 74,811,884	\$ 76,152,656	\$ 81,498,380	\$ 81,633,955
Railroads	\$ 20,354,584	\$ 21,895,977	\$ 24,173,898	\$ 29,132,239	\$ 30,590,127	\$ 32,934,812	\$ 48,929,508	\$ 47,518,648	\$ 52,123,784	\$ 54,432,171	\$ 59,751,994	\$ 57,242,117
Cable Sat Co	\$ -	\$ -	\$ 817,421	\$ 767,580	\$ 784,789	\$ 1,397,674	\$ 1,240,510	\$ 729,650	\$ 773,531	\$ 781,906	\$ 599,466	\$ 544,400
Local	\$ 486,502,114	\$ 561,650,264	\$ 637,462,775	\$ 761,319,842	\$ 762,140,943	\$ 772,800,535	\$ 806,874,459	\$ 828,167,709	\$ 852,775,557	\$ 867,580,960	\$ 849,541,428	\$ 702,866,456
<b>Total Assessed Valuation</b>	<b>\$ 4,263,561,953</b>	<b>\$ 4,553,066,493</b>	<b>\$ 4,722,822,444</b>	<b>\$ 5,710,554,518</b>	<b>\$ 5,016,666,914</b>	<b>\$ 5,425,565,207</b>	<b>\$ 5,839,065,491</b>	<b>\$ 5,559,437,548</b>	<b>\$ 5,685,695,158</b>	<b>\$ 6,208,239,272</b>	<b>\$ 5,288,502,849</b>	<b>\$ 4,182,623,053</b>
<b>Revenue/Budget</b>												
Mill Levy	11.086	12.000	12.000	11.088	11.051	11.051	11.051	11.051	11.051	11.051	11.151	11.25
Coal Mill Revenue	\$ 22,119,980	\$ 30,391,258	\$ 34,225,039	\$ 36,823,756	\$ 37,230,887	\$ 38,987,239	\$ 41,257,698	\$ 39,150,737	\$ 36,443,808	\$ 37,008,927	\$ 35,123,536	\$ 27,662,947
Local Mill Revenue	\$ 5,393,362	\$ 6,739,803	\$ 7,649,553	\$ 8,441,514	\$ 8,422,420	\$ 8,540,219	\$ 8,916,770	\$ 9,152,081	\$ 9,424,023	\$ 9,587,637	\$ 9,473,236	\$ 7,907,248
Oil Mill Revenue	\$ 4,148,645	\$ 5,203,472	\$ 5,700,307	\$ 7,238,040	\$ 4,031,639	\$ 5,475,449	\$ 7,254,911	\$ 7,925,785	\$ 11,257,195	\$ 15,540,071	\$ 9,868,071	\$ 7,238,137
Gas Mill Revenue	\$ 14,687,909	\$ 11,188,678	\$ 7,853,531	\$ 9,366,775	\$ 3,757,721	\$ 4,769,704	\$ 4,671,548	\$ 2,797,260	\$ 3,229,194	\$ 3,925,790	\$ 1,714,406	\$ 1,475,199
Other Mill Revenue	\$ 915,952	\$ 1,113,586	\$ 1,245,539	\$ 1,448,543	\$ 1,996,521	\$ 2,185,311	\$ 2,426,587	\$ 2,411,481	\$ 2,478,399	\$ 2,544,827	\$ 2,792,846	\$ 2,770,979
<b>Total Mill Revenue</b>	<b>\$ 47,265,848</b>	<b>\$ 54,636,798</b>	<b>\$ 56,673,869</b>	<b>\$ 63,318,628</b>	<b>\$ 55,439,186</b>	<b>\$ 59,957,921</b>	<b>\$ 64,527,513</b>	<b>\$ 61,437,344</b>	<b>\$ 62,832,617</b>	<b>\$ 68,607,252</b>	<b>\$ 58,972,095</b>	<b>\$ 47,054,509</b>
Total County Budget	\$ 114,848,709	\$ 208,918,450	\$ 187,188,003	\$ 183,879,686	\$ 138,092,485	\$ 157,337,782	\$ 170,737,588	\$ 155,745,639	\$ 148,296,220	\$ 170,237,504	\$ 134,644,660	\$ 98,709,174
Mill % of Total Budget	41.2%	26.2%	30.3%	34.4%	40.1%	38.1%	37.8%	39.4%	42.4%	40.3%	43.8%	47.7%
Coal Mill % of Total Budget	19.3%	14.5%	18.3%	20.0%	27.0%	24.8%	24.2%	25.1%	24.6%	21.7%	26.1%	28.0%
Coal Revenue % Mill	46.8%	55.6%	60.4%	58.2%	67.2%	65.0%	63.9%	63.7%	58.0%	53.9%	59.6%	58.8%
Local Mill % of Total Budget	4.7%	3.2%	4.1%	4.6%	6.1%	5.4%	5.2%	5.9%	6.4%	5.6%	7.0%	8.0%
Local Revenue % Mill	11.4%	12.3%	13.5%	13.3%	15.2%	14.2%	13.8%	14.9%	15.0%	14.0%	16.1%	16.8%
Oil Mill % of Total Budget	3.6%	2.5%	3.0%	3.9%	2.9%	3.5%	4.2%	5.1%	7.6%	9.1%	7.3%	7.3%
Oil Revenue % Mill	8.8%	9.5%	10.1%	11.4%	7.3%	9.1%	11.2%	12.9%	17.9%	22.7%	16.7%	15.4%
Gas Mill % of Total Budget	12.8%	5.4%	4.2%	5.1%	2.7%	3.0%	2.7%	1.8%	2.2%	2.3%	1.3%	1.5%
Gas Revenue % Mill	31.1%	20.5%	13.9%	14.8%	6.8%	8.0%	7.2%	4.6%	5.1%	5.7%	2.9%	3.1%
Other Mill % of Total Budget	0.8%	0.5%	0.7%	0.8%	1.4%	1.4%	1.4%	1.5%	1.7%	1.5%	2.1%	2.8%
Other Revenue % Mill	1.9%	2.0%	2.2%	2.3%	3.6%	3.6%	3.8%	3.9%	3.9%	3.7%	4.7%	5.9%
<b>Major Mineral Production</b>												
Coal (Tons)	374,877,362	411,147,664	411,822,169	428,374,712	393,061,417	401,648,463	401,648,463	360,224,379	352,804,596	358,196,669	340,675,046	270,867,980
Oil (BBLS)	8,983,976	9,120,103	8,696,940	8,086,536	7,365,680	7,789,810	8,515,388	9,721,400	12,857,254	18,661,893	22,880,158	18,450,836
Gas (MCF)	290,744,756	212,309,280	177,304,330	165,298,621	140,958,111	147,050,230	137,093,441	116,465,363	101,438,496	99,419,520	91,822,098	84,213,839
Coal Revenue (\$/Ton)	\$ 0.059	\$ 0.074	\$ 0.083	\$ 0.086	\$ 0.095	\$ 0.097	\$ 0.103	\$ 0.109	\$ 0.103	\$ 0.103	\$ 0.103	\$ 0.102
Oil Revenue (\$/BBLS)	\$ 0.462	\$ 0.571	\$ 0.655	\$ 0.895	\$ 0.547	\$ 0.703	\$ 0.852	\$ 0.815	\$ 0.876	\$ 0.833	\$ 0.431	\$ 0.392
Gas Revenue (\$/MCF)	\$ 0.051	\$ 0.053	\$ 0.044	\$ 0.057	\$ 0.027	\$ 0.032	\$ 0.034	\$ 0.024	\$ 0.032	\$ 0.039	\$ 0.019	\$ 0.018

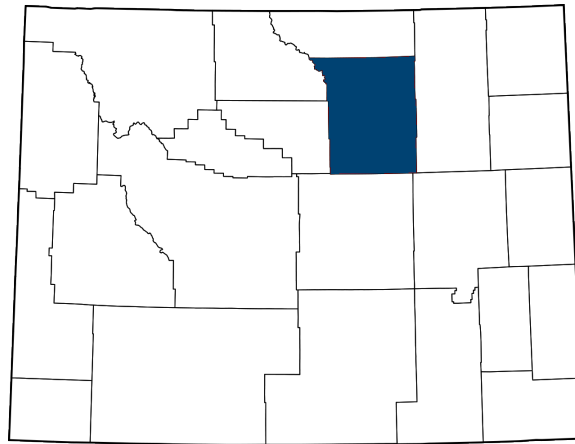
## Campbell County Valuation, Revenue and Mineral Production 1994 - 2023

	2018	2019	2020	2021	2022	2023	\$ Change	% Change	5-year Average	10-year Average	20-year Average	30-year Average
<b>Assessed Valuation</b>												
	<b>Attachment #13</b>											
	<b>Campbell County Valuation, Revenue, Mineral Production 1994-2023</b>											
Coal	\$ 2,592,159,599	\$ 2,451,805,435	\$ 2,109,484,484	\$ 1,831,484,484	\$ 1,109,116,929	\$ 1,009,116,929	\$ 1,009,116,929	0%	\$ 2,149,013,804	\$ 2,559,267,246	\$ 2,688,361,494	\$ 2,123,858,892
Oil	\$ 755,998,308	\$ 942,706,167	\$ 976,651,434	\$ 614,016,476	\$ 1,177,943,332	\$ 1,678,271,261	\$ 500,327,929	42.5%	\$ 1,077,917,734	\$ 1,009,879,881	\$ 741,024,838	\$ 576,693,001
Gas	\$ 171,724,767	\$ 140,425,996	\$ 115,193,208	\$ 96,739,513	\$ 442,753,730	\$ 538,742,802	\$ 95,989,072	21.7%	\$ 266,771,050	\$ 243,790,465	\$ 483,636,265	\$ 385,012,963
Uranium	\$ 1,873,288	\$ 576,445	\$ 238,339	\$ 112,406	\$ 70,238	\$ 6,872	\$ (63,366)	-90.2%	\$ 200,860	\$ 3,896,205	\$ 2,939,394	\$ 2,675,175
Misc Minerals	\$ 5,703,624	\$ 8,172,612	\$ 9,745,168	\$ 3,743,768	\$ 4,950,846	\$ 3,873,957	\$ (1,076,889)	-21.8%	\$ 6,097,270	\$ 6,150,460	\$ 5,317,040	\$ 4,365,292
Public Utilities	\$ 71,389,766	\$ 71,787,677	\$ 76,305,579	\$ 69,193,578	\$ 72,467,187	\$ 62,979,724	\$ (9,487,463)	-13.1%	\$ 70,546,749	\$ 68,451,959	\$ 59,036,923	\$ 49,220,585
Telephone	\$ 1,729,309	\$ 1,861,612	\$ 1,925,444	\$ 3,161,658	\$ 2,758,483	\$ 2,486,348	\$ (272,135)	-9.9%	\$ 2,438,709	\$ 2,189,358	\$ 2,529,526	\$ 2,704,610
Pipelines	\$ 25,703,682	\$ 23,599,826	\$ 16,462,008	\$ 15,797,683	\$ 14,866,011	\$ 12,295,394	\$ (2,570,617)	-17.3%	\$ 16,604,184	\$ 18,992,810	\$ 16,481,826	\$ 13,295,823
REA's	\$ 82,345,737	\$ 88,510,918	\$ 92,334,065	\$ 84,634,785	\$ 83,324,315	\$ 64,129,125	\$ (19,195,190)	-23.0%	\$ 82,586,642	\$ 80,937,582	\$ 58,890,955	\$ 40,651,216
Railroads	\$ 56,909,709	\$ 60,665,314	\$ 69,647,394	\$ 68,578,969	\$ 70,342,839	\$ 81,668,767	\$ 11,325,928	16.1%	\$ 70,180,657	\$ 63,136,306	\$ 46,379,237	\$ 36,073,469
Cable Sat Co	\$ 682,526	\$ 819,603	\$ 960,565	\$ 830,616	\$ 994,851	\$ 1,025,555	\$ 30,704	3.1%	\$ 926,238	\$ 801,302	\$ 687,532	\$ 458,355
Local	\$ 662,056,617	\$ 679,223,739	\$ 683,138,466	\$ 680,926,635	\$ 740,482,343	\$ 849,847,997	\$ 109,365,654	14.8%	\$ 726,723,836	\$ 756,844,020	\$ 702,677,524	\$ 561,877,871
<b>Total Assessed Valuation</b>	<b>\$ 4,428,276,932</b>	<b>\$ 4,470,155,344</b>	<b>\$ 4,242,015,313</b>	<b>\$ 3,392,572,551</b>	<b>\$ 4,539,270,189</b>	<b>\$ 5,706,025,264</b>	<b>\$ 1,166,755,075</b>	<b>25.7%</b>	<b>\$ 4,470,007,732</b>	<b>\$ 4,814,337,593</b>	<b>\$ 4,807,668,615</b>	<b>\$ 3,796,619,734</b>
<b>Revenue/Budget</b>												
Mill Levy	11.203	11.253	11.276	11.235	11.235	11.100	-0.135	-1.20%	11.220	11.180	11.21	11.18
Coal Mill Revenue	\$ 29,039,964	\$ 27,590,167	\$ 24,799,608	\$ 19,715,588	\$ 21,664,630	\$ 26,758,742	\$ 5,094,111	23.5%	\$ 24,105,747	\$ 28,580,792	\$ 30,115,796	\$ 23,755,964
Local Mill Revenue	\$ 7,417,020	\$ 7,643,305	\$ 7,702,765	\$ 7,650,211	\$ 8,319,319	\$ 9,433,313	\$ 1,113,994	13.4%	\$ 8,149,782	\$ 8,455,808	\$ 7,868,412	\$ 6,281,910
Oil Mill Revenue	\$ 8,469,449	\$ 10,608,272	\$ 11,012,286	\$ 6,898,475	\$ 13,234,193	\$ 18,628,811	\$ 5,394,618	40.8%	\$ 12,076,408	\$ 11,275,496	\$ 8,290,430	\$ 6,444,722
Gas Mill Revenue	\$ 1,923,833	\$ 1,580,214	\$ 1,298,867	\$ 1,086,868	\$ 4,974,338	\$ 5,980,045	\$ 1,005,707	20.2%	\$ 2,984,067	\$ 2,718,875	\$ 5,431,544	\$ 4,311,095
Other Mill Revenue	\$ 2,759,721	\$ 2,880,701	\$ 3,017,548	\$ 2,764,411	\$ 2,806,220	\$ 2,535,970	\$ (270,250)	-9.6%	\$ 2,800,970	\$ 2,735,162	\$ 2,147,059	\$ 1,666,539
<b>Total Mill Revenue</b>	<b>\$ 49,609,986</b>	<b>\$ 50,302,658</b>	<b>\$ 47,831,074</b>	<b>\$ 38,115,553</b>	<b>\$ 50,998,701</b>	<b>\$ 63,336,880</b>	<b>\$ 12,338,180</b>	<b>24.2%</b>	<b>\$ 50,116,973</b>	<b>\$ 53,766,133</b>	<b>\$ 53,853,242</b>	<b>\$ 42,460,230</b>
Total County Budget	\$ 111,895,524	\$ 128,362,617	\$ 114,576,043	\$ 109,806,365	\$ 139,034,386	\$ 151,703,806	\$ 12,669,420	9.1%	\$ 128,696,643	\$ 130,726,630	\$ 139,962,061	\$ 136,247,607
Mill % of Total Budget	44.3%	39.2%	41.7%	34.7%	36.7%	41.8%	5.1%	13.8%	38.8%	41.3%	39.3%	38.8%
Coal Mill % of Total Budget	26.0%	21.5%	21.6%	18.0%	15.6%	17.6%	2.1%	13.2%	18.9%	24.4%	21.8%	21.7%
Coal Revenue % Mill	58.5%	54.8%	51.8%	51.7%	42.5%	42.2%	-0.2%	-0.5%	48.6%	58.8%	55.4%	56.0%
Local Mill % of Total Budget	6.6%	6.0%	6.7%	7.0%	6.0%	6.2%	0.2%	3.9%	6.4%	6.3%	5.8%	5.9%
Local Revenue % Mill	15.0%	15.2%	16.1%	20.1%	16.3%	14.9%	-1.4%	-8.7%	16.5%	15.1%	14.7%	15.1%
Oil Mill % of Total Budget	7.6%	8.3%	9.6%	6.3%	9.5%	12.3%	2.8%	29.0%	9.2%	7.0%	6.0%	5.9%
Oil Revenue % Mill	17.1%	21.1%	23.0%	18.1%	26.0%	29.4%	3.5%	13.3%	23.5%	16.7%	15.2%	15.1%
Gas Mill % of Total Budget	1.7%	1.2%	1.1%	1.0%	3.6%	3.9%	0.4%	10.2%	2.2%	1.9%	4.2%	3.8%
Gas Revenue % Mill	3.9%	3.1%	2.7%	2.9%	9.8%	9.4%	-0.3%	-3.2%	5.6%	4.6%	10.7%	9.9%
Other Mill % of Total Budget	2.5%	2.2%	2.6%	2.5%	2.0%	1.7%	-0.3%	-17.2%	2.2%	2.0%	1.6%	1.5%
Other Revenue % Mill	5.6%	5.7%	6.3%	7.3%	5.5%	4.0%	-1.5%	-27.2%	5.8%	4.7%	4.0%	3.9%
<b>Major Mineral Production</b>												
Coal (Tons)	292,994,954	288,349,463	266,738,517	209,255,318	231,053,655	237,734,772	6,681,117	2.9%	246,626,345	333,414,853	336,417,463	312,320,329
Oil (BBLs)	17,339,758	17,064,910	20,457,579	19,322,651	19,967,292	19,690,693	-276,599	-1.4%	19,300,625	15,373,899	13,697,423	14,313,053
Gas (MCF)	76,607,362	67,879,952	75,420,952	79,610,749	90,956,158	86,496,200	-4,459,958	-4.9%	80,072,802	99,741,125	146,483,460	128,389,773
Coal Revenue (\$/Ton)	\$ 0.099	\$ 0.096	\$ 0.093	\$ 0.094	\$ 0.094	\$ 0.113	0.019	20.0%	\$ 0.098	\$ 0.086	\$ 0.090	\$ 0.076
Oil Revenue (\$/BBLs)	\$ 0.488	\$ 0.622	\$ 0.538	\$ 0.357	\$ 0.663	\$ 0.946	0.283	42.7%	\$ 0.626	\$ 0.733	\$ 0.605	\$ 0.439
Gas Revenue (\$/MCF)	\$ 0.025	\$ 0.023	\$ 0.017	\$ 0.014	\$ 0.055	\$ 0.069	0.014	26.4%	\$ 0.037	\$ 0.027	\$ 0.037	\$ 0.050

**Attachment #14**  
**Johnson County Socioeconomic Profile dated 2018**



# A Johnson County Profile: Socioeconomics



## **Johnson County Board of County Commissioners**

Bill Novotny, Chair

Linda Greenough

Bob Perry

The goal of this document is to provide an accurate picture of Johnson County's socioeconomic attributes. Accomplishing this requires verifiable and universally accepted substantive data that is objectively incorporated into a narrative format.

Those requirements provide the foundation for this document. The resulting document not only serves the county as it moves forward with its own educational and planning efforts, but also serves to inform state and federal educational and planning efforts as well.

*This socioeconomic profile of Johnson County is made possible  
with the collaborative support of:*



*Wyoming County  
Commissioners  
Association*



# INTRODUCTION

In a rapidly changing world, timely and accurate information is essential to good decision making. Local officials, state government, federal agencies, and the general public need information on the structure and trends within a region's economy in order to more effectively conduct and participate in public policy decision making processes. Information describing regional economic conditions can aid in the public policy decision making process by providing a perspective on economic structure and changes over time. In addition, the identification of long-term trends can help residents, local officials, state government, and federal agencies plan for the future. This report has been developed to provide baseline information on the structure and trends for the Johnson County economy.

Four types of information are discussed in this report, including: 1) Demographics, 2) Land Characteristics, 3) County Government Finances, and 4) Natural Resource Based Industry Profiles. The Demographic section provides information on the characteristics of the residents of county. The Land Characteristics section provides a perspective on the physical setting of the county. The County Government Finances section considers county government's ability to meet the needs of residents in terms of public services and public infrastructure. The Industry profile section discusses the economic importance of natural resource based industries in the county.

Each type of information is discussed separately in the report. To put Johnson County's information in perspective, the county data is compared to corresponding data for Wyoming and the United States. A variety of data sources were used to develop this socio-economic profile including the Wyoming Department of Administration & Information – Economic Analysis Division's Wyoming County Profiles. The most current data available from these data sources was used in the report. All time series data involving dollars were adjusted for inflation to 2009 dollars since these deflators are latest that are currently available. This report is part of an ongoing cooperative effort between the University of Wyoming, the Wyoming County Commissioners Association, and the Wyoming Department of Administration and Information to develop a socio-economic database for Wyoming Counties.

# **COUNTY SUMMARY**

## Demographics

Population growth is an important indicator of the vitality of a county's economy. Overall, Johnson County experienced positive population growth between 2005 and 2015, increasing from 7,685 residents in 2005 to 8,476 in 2015 (+10 percent). The county's population growth rate was lower than Wyoming's (+13 percent) and comparable to the U.S.'s (+10 percent) during this time period. However, there was substantial variability in the county's population over the time period. From 2005 to 2008, the county's population increased by 10 percent. The growth in county population slowed to 6 percent between 2008 and 2011. From 2011 to 2015, the county's population remained relatively constant at around 8,600 residents. Between 2015 and 2017, the county's population declined by nearly 2 percent (-140 residents).

Population increases can occur in one of two ways: 1) Natural Increase (more births than deaths) or 2) Net In-Migration (more people moving in than moving out). Between 2005 and 2017, Johnson County experienced population growth due to both positive Natural Increase and positive Net In-Migration. However, the county's population growth was almost entirely due to Net In-Migration, with only 0.7 percent (+54 more births than deaths) coming from Natural Increase. As a result, 93 percent of the county's population growth (9.6 percent) came from Net In-migration. In comparison, 64 percent of Wyoming's population growth came from Natural Increase and 36 percent came from Net In-Migration. The older age of county residents, which will be discussed later, may explain the lack of population growth from Natural Increase.

Individuals move to an area for a variety of reasons ranging from economic to aesthetic. Data from the Wyoming Housing Database Partnership for 2010 through 2017 indicates that the most frequent reason given by new residents to Johnson County for moving to Wyoming was other factors, perhaps including retirement. The second most frequent reason was to be closer to friends and relatives who lived in the area (31 percent). The third most frequent reason was job related factors (20 percent). Job related factors included Job Transfers, New Jobs, Better Employment Opportunities, and Starting or Expanding a Business. About 12 percent of new residents surveyed indicated that a better quality of life was the primary reason for moving to the county. This data is from the Housing Needs Assessment Survey conducted by the Wyoming Housing Database Partnership in cooperation with the Wyoming Department of Transportation. The survey results are based on a random sample of new residents who were exchanging their previous state's driver's licenses for a Wyoming driver's license.

In 2016, the largest age groups for Johnson County residents were adults 45 to 64 years old (28 percent) and adults 65 and over (23 percent). Combined, these two age groups represented more than one-half of the total county population. The next largest age group was adults 25 to 44 (22 percent), followed by youth 5 to 17 (17 percent), young adults 18 to 24 (6 percent), and children under 5 (5 percent). The population distribution for the county was under represented at the lower end of the age spectrum relative to Wyoming and the U.S. Compared to Wyoming and the U.S., the county had a lower proportion of its overall population in the less than 5 age category, the 5 to 17 age category, the 18 to 24 age category, and the 25 to 44 age category. This was especially true for the 18 to 24 and 25 to 44

age categories. At the upper end of the age spectrum, the county had a higher proportion of residents in the 45 to 64 age category and the 65 and over age category. This was especially true for the 65 and over age category. The significantly lower proportion of the county's population in the 18 to 24 and 25 to 44 age categories may indicate that the county has difficulty retaining and attracting young adults to live and work in the county. The higher proportion of county residents in the 45 to 64 age category suggests that the county may see a continued aging of its population as these residents become retirement age. The median age for the county in 2016 (45.3 years) was substantially higher than the median age for Wyoming (37.1 years) and the median age for the U.S. (37.9 years).

Like most of Wyoming, White is the predominate category of race in Johnson County, accounting for 95 percent of the total population. The percentage of the population that is White in the county was comparable to Wyoming's (94 percent) and substantially higher than for the U.S. (79 percent). The other five races identified by the federal government account for the remaining 5 percent with Two or More Races (1.6 percent) and Native American (1.5 percent) being the most common, followed by Black (0.9 percent), Asian (0.9 percent), and Pacific Islanders (0.0 percent). The proportion of the county's population that was Black, Asian, Pacific Islander, or Two or More races was lower than for either Wyoming or the U.S. The proportion of the county's population that was Native American (1.5 percent) was higher than the U.S. (0.7 percent) but lower than Wyoming (2.1 percent).

The federal government defines the term "Hispanic" as an ethnicity rather than a specific race. Thus Hispanics can be individuals of any race that self-identify themselves as "Hispanic" or "Latino" based on heritage, nationality group, lineage, or country of birth of the person or person's parents or ancestors before their arrival in the United States. In Johnson County, the percentage of the population classifying themselves as Hispanic (5 percent) was one-half the percentage for Wyoming (10 percent) and one-fourth the percentage for U.S. (18 percent).

Per capita income serves as a general indicator of the economic well-being of a county's population. In 2005, per capita income in Johnson County was \$35,570 in 2009 dollars. This was 14 percent below Wyoming's per capita income (\$41,439) and 9 percent below the U.S. per capita income (\$38,916). From 2005 to 2016, after adjusting for inflation, per capita income for the county increased by 10 percent to \$39,240. Despite this increase, in 2016 the county's per capita income was 21 percent lower than the Wyoming average (\$49,779) and 12 percent below the U.S. average (\$44,478). There are three sources of per capita income: 1) net labor earnings including wages, salaries, and proprietor (self-employed) income, 2) government transfer payments such as Social Security, Medicare, Medicaid, and various income assistance program payments, and 3) investment income representing property income in the form of dividends, interest, and rents. The majority of the growth in the county's per capita income between 2005 and 2016 was the result increased transfer payments (57 percent) with 49 percent coming from increased net labor earnings and investment income contribution declining by 6 percent. Transfer payments were the fastest growing individual source of per capita income between 2005 and 2016 increasing by 40 percent, while net labor income increased by 9 percent and investment income declined by 2 percent. In 2005, net labor earnings represented 54 percent of total per capita income, with investment income representing 32 percent, and transfer payments representing 15 percent. In

2016, net labor income represented 53 percent of total per capita income, investment income represented 19 percent, and transfer payments represented 28 percent. The increase in the county's transfer payments are probably retirement related.

In 2016, per capita income for Johnson County was \$43,447 in 2016 dollars. This level of income was 21 percent below the per capita income for Wyoming (\$55,116) and 12 percent below the per capita income for the U.S. (\$49,246). Among the three regions, the county had the lowest per capita labor earnings (\$23,099) compared to Wyoming (\$30,875) and the U.S. (\$31,148). In 2016, the county had per capita transfer payments of \$8,101 which was 10 percent higher than per capita transfer payments for Wyoming (\$7,356), and only 5 percent lower than per capita transfer payments for the U.S. (\$8,567). The county's per capita investment income (\$12,247) was 27 percent below per capita investment income for Wyoming (\$16,885) but 28 percent higher than per capita investment income for the U.S. (\$9,531). In 2016 94 percent of county transfer payments were retirement related.

The county's 2016 unemployment rate (5.3 percent) was the same as Wyoming's unemployment rate (5.3 percent) and somewhat higher than the U.S. unemployment rate (4.6 percent). While total per capita income for the county was 21 percent below the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2016 was 2 percent below the state average. This difference suggests that, on average, county residents were economically worse-off than the rest of the state in 2016. However, the percent of the county's population that was below the poverty level (8.8 percent) was lower than the Wyoming's rate (10.9 percent) and significantly lower than the U.S. rate (14.0 percent).

Overall, the educational attainment of Johnson County's population in terms of a high school degree or higher (95 percent) was slightly higher than Wyoming's (92 percent) and significantly higher than the U.S. (87 percent). The county's population was less educated in terms of college bachelors or advanced degrees than Wyoming or the U.S. (25 percent vs. 26 percent vs. 30 percent). The percentage of the county population without a high school degree (5 percent) was lower than Wyoming's (8 percent) and the U.S. (13 percent). The percentage of the county's population with a high school degree (33 percent) was higher than Wyoming's (29 percent) and higher than the U.S. (27 percent). The percentage of the county's population with some college (26 percent) was lower than Wyoming's (27 percent) and higher than the U.S. (21 percent). The percentage of the county's population with an associate degree (10 percent) was lower than Wyoming's (11 percent) and higher than the U.S. (8 percent). The percentage of the county's population with a bachelors (17 percent) was comparable to Wyoming's (17 percent) and the lower than the U.S. (19 percent). The percentage of the county's population with a graduate or professional degree (9 percent) was comparable to Wyoming's (9 percent) and lower than the U.S. (12 percent).

In terms of access to educational resources, the county has one public school districts with a total of 5 schools and a 2016 fall enrollment of 1,292. The graduation rate for the county's school district was 83 percent compared to state average of 80 percent. The public school system had 123 certified teachers, 23 certified staff, 12 administrators, and 94 classified staff. Total general fund expenditures for the

county's public school system was \$20.6 million in 2016 with an operating cost of \$19,178 per average daily membership. This compares with an average operating cost of \$17,989 for the state.

Overall, Johnson County experienced positive employment growth between 2005 and 2016. Total employment in the county increased by 13 percent from 2005 through 2016 growing from 5,370 jobs in 2005 to 6,095 jobs in 2016. During this time period Wyoming employment and U.S. increased by 12 percent. However, there was substantial variability in county employment during the time period. County employment spiked between 2005 and 2008 growing by 17 percent (+902 jobs). The largest growth in employment during this time period was in Mining (+296 jobs), Construction (+134 jobs), and Real Estate, Rental, & Leasing (+129 jobs). After peaking in 2008, county employment then declined by 6 percent between 2008 and 2011 (-399 jobs). The largest declines in employment during this time period were in Mining (-235 jobs) and Construction (-213 jobs). Some of the decline from 2008 through 2011 may have been in responses to the national recession since 13 of the 23 sectors in the county's economy lost employment during this time period. After bottoming out in 2011, county employment then grew by 8 percent between 2011 and 2014 (+494 jobs). The largest growth in employment during this time period were in Construction (+196 jobs) and Real Estate, Rental, & Leasing (+82 jobs). Finally, after again peaking in 2014, county employment declines by 3 percent between 2014 and 2016 (-272 jobs). The largest decline in employment during this time period was in Construction (-305 jobs) and Mining (-82 jobs).

Local Government, which includes the public school district, was the largest source of employment in the county in 2016, representing 12 percent of total jobs. Following Local Government were Real Estate, Rental, & Leasing (10 percent), Accommodations & Food Service (9 percent), Retail Trade (9 percent), and Agriculture (8 percent). These five sectors account for nearly one-half of the total employment in the county. In addition, Construction (6 percent), Mining (6 percent), and Finance & Insurance (5 percent) each account for more than 5 percent of total county employment.

Location quotients (LQ) were used to identify Defining Industries in the county. A location quotient is the ratio of an industry's share of total employment in the region relative to the industry's share of total employment at the national level. A large location quotient is an indication of specialization within the county's economy. Defining Industries are important because they play a significant role in a region's growth over time. The Federal Reserve Bank of Kansas City considers Defining Industries as those with a locational quotient of at least 1.25 that account for at least 0.2 percent of total employment in the region. Based on this definition, Johnson County has eight Defining Industries including: Mining (8.61), Agriculture (5.58), Forestry, Fishing, & Ag Support (4.20), Real Estate, Rental, & Leasing (2.13), Local Government (1.68), Federal – Civilian (1.45), Accommodations & Food Service (1.26), and Construction (1.25). These eight sectors are relatively more important in the county's economy than they are at the national level.

The Economic Research Service classifies the county as both a Recreation Dependent County and a Retirement Destination County. The Recreation Dependent classification is based on an index which considers employment, earnings, and seasonal housing. The Retirement Destination classification is



based on the growth in residents 60 years of age and over between 2000 and 2010 due to net immigration.

Overall employment in Johnson County increased by 13 percent from 2005 through 2016. The largest increases in employment came from Real Estate, Rental & Leasing (+272 jobs), Agriculture (+100 jobs), Local Government (+99 jobs), Finance & Insurance (+94 jobs) and Professional Services (+91 jobs). During this time period, eight sectors lost employment, Construction (-188 jobs), Information (-7 jobs), Federal – Civilian (-6 jobs), Retail Trade (-5 jobs), Manufacturing (-5), Forestry, Fishing, & Ag Support (-4 jobs), Wholesale Trade (-1 Job), and Utilities (-1 Job).

In addition to the number of jobs, the labor earnings associated with those jobs is an important consideration. Overall average earnings per job are a general measure of the economic well-being of the local workforce. Over time, the county average earnings per job have tended to be substantially below the Wyoming and U.S. averages. In 2005, the average earnings per job for the county were \$29,601, in 2009 dollars, which was 29 percent below the Wyoming average earnings per job (\$41,439) and 24 percent below the U.S. average earnings per job (\$38,916). From 2005 through 2016, after adjusting for inflation, county average earnings per job increased by 7 percent to \$31,563. Despite this increase, 2016 county average earnings per job were 37 percent below the Wyoming average earnings per job (\$49,779) and 29 percent below the U.S. average earnings per job (\$44,478). In addition, county average earnings per job declined by 12 percent from 2014 to 2016 (\$35,935 to \$31,563). While total per capita income for the county was 37 percent below the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2016 was 2 percent below the state average. This difference suggests that, on average, the county workforce was economically worse-off than the rest of the state in 2016.

Average earnings per job (AEPJ), which includes employer paid benefits, varies substantially by sector. In 2016, AEPJ in Johnson County ranged from over \$139,000 for the Utilities sector to slightly more than \$11,000 for Arts, Entertainment, & Recreation. After Utilities, the next highest AEPJ was Federal - Civilian (\$90,469), State Government (\$73,086), Local Government (\$68,256) and Transportation & Warehousing (\$63,143). Of the 23 sectors in the county's economy only 5 had AEPJ greater than the Wyoming average (\$55,116). These 5 sectors represented only 19 percent of the total employment in the county resulting in the overall lower AEPJ for the county. Similarly, only 6 sectors in the county's economy had AEPJ higher than the U.S. average (\$49,246). These 6 sectors represented only 21 percent of the total employment in the county.

The combination of the number of jobs and the average earnings per job determines the relative importance of individual sectors in terms of total labor earnings in the Johnson County economy. Labor earnings are important because they represent the major source of personal income for county residents. Overall, county employment generated \$213.0 million in labor earnings in 2016. Local Government (24 percent) was by far the largest source of labor earnings for the county. Following Local Government was Construction (9.1 percent) and Mining (7 percent).

## Land Characterisitcs

Johnson County contains 2.7 million acres of land. Private land is the largest category of landownership in the county, accounting for 59 percent of the land area (1.6 million acres). Federal land represents 31 percent of the land area (830,720 acres). Of this total the BLM manages 60 percent (502,464 acres) and the Forest Service manages 40 percent (328,256 acres). State land represents 9 percent of the county's land area (241,856 acres); with 95 percent of this land being state trust land and 5 percent being Wyoming Game & Fish Department land. There are also 64 acres of Recreation Commission land in the county. Local government owns less than one percent of the county's land area (4,224 acres). Information from the Wyoming Department of Revenue on acres taxed as agricultural land indicates that 97 percent of the private land in the county is in agricultural use (1.5 million acres). Of this total 96 percent is classified as range land (1.4 million acres), 4 percent is classified as irrigated crop land (58,174 acres) and less than one percent is classified as dry crop land (2,758 acres).

Federal lands are managed for different purposes under differing statutory authority. Three possible categories of designation include: 1) Protected, 2) Restricted, and 3) General Use.

- Protected Areas include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Water Fowl Protection Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS).
- Restricted Areas include Wilderness Study Areas (NPS, FWS, FS, BLM) and Inventoried Roadless Areas (FS).
- General Use Areas include Public Domain Lands (BLM) and National Forests and Grasslands (FS).

This data was obtained from the Economic Profile System – Human Dimension Toolkit (NPS = National Park Service, FWS = Fish and Wildlife, FS = Forest Service, and BLM = Bureau of Land Management).

For Johnson County, Economic Profile System data indicates that 69 percent of Federal lands in the county are designated for general use with 18 percent designated for restricted use, and 13 percent Federal lands designated for protected use. In comparison, 21 percent of total Federal lands in Wyoming are classified as protected, 13 percent are classified as restricted and 66 percent are classified as general use.

## County Government Finances

Wyoming Department of Audit information indicates that the total revenue for Johnson County Government was \$23.5 million in FY2017. Of this total, the largest sources were Taxes which included property taxes and any optional sales tax revenue (39 percent), Other Local Government Revenue (24 percent) and State Aid which included the county's share of the 4 percent sales and use tax revenue (17 percent). Combined, these three sources represented 81 percent of the total county government revenue in FY2017. Following these three revenue sources were Direct Federal Aid (8 percent), Charges

for Services (7 percent), and Miscellaneous Revenue (5 percent). Combined, these revenue sources represented 19 percent of the total county government revenue in FY2017. Per capita revenue for the county in FY2017 was \$2,768 which was 2.2 times the state average (\$1,254).

From FY2013 to FY 2016, county government revenue averaged \$22.7 million with a high of \$26.4 million in FY2016 and a low of \$20.2 million in FY2014. County government revenues were 7 percent higher in FY2017 (\$23.5 million) compared to FY2013 (\$21.9 million).

The total assessed valuation for Johnson County in 2017 was \$405.3 million. Forty-five percent of the total valuation was from Minerals. Following Minerals was Industrial (24 percent), Residential Property (21 percent), Agricultural Lands (5 percent), Commercial Property (4 percent), and Utilities (2 percent). The county's per capita assessed valuation (\$47,821) was 47 percent greater than Wyoming's per capita assessed valuation (\$32,495). Out of Wyoming's 23 counties, Johnson County ranked 12<sup>th</sup> in terms of total assessed valuation trailing Campbell, Carbon, Converse, Fremont, Laramie, Lincoln, Park, Sublette, Sweetwater, and Teton.

In terms of Mineral Production, natural gas represented 71 percent of total county mineral assessed valuation, crude oil represented 23 percent, uranium represented 3 percent, bentonite represented 2 percent, and sand & gravel represented less than one percent.

From 2013 to 2015, the county's assessed valuation increased from \$784.6 million to \$879.3 million (+12 percent). Eighty-nine percent of this increase was due to increases in mineral assessed valuation. However, from 2015 to 2017 the county's assessed valuation decreased from \$879.3 million to \$405.3 million (-54 percent). During this time period, the decrease in mineral assessed valuation (-\$386.1 million) exceeded the decrease in total assessed valuation (-\$379.3 million).

In FY2017, Johnson County's 5 percent sales and use tax generated \$12.2 million in tax revenue. Of this total, 49 percent (\$6.0 million) was retained by state government and 51 percent (\$6.2 million) was returned to local governments in the county. In FY2017, county government's share of the returned sales and use tax revenue was approximately \$3.5 million (56 percent) with the remaining \$2.7 million (44 percent) going to municipal governments in the county. Twenty-seven percent of the county's total sales and use tax revenue came from Retail Trade. Following Retail Trade was Mining (15 percent) and Utilities (15 percent). Combined, these three sectors contributed 57 percent of the county's total sales and use tax revenue. Leisure & Hospitality, Public Administration, Wholesale Trade, Financial Activities, Other Services, Construction and Other, combined, contributed the remaining 43 percent of total county sales and use tax revenue. Public Administration represents sales and use tax revenue on motor vehicle purchases which are collected at the time of registration in Wyoming. The county's per capita sales & use tax revenue (\$1,441) was 6 percent higher than Wyoming's per capita sales & tax revenue (\$1,364).

At a 4 percent sales and use tax rate, county sales & use tax revenues increased from \$11.2 million in FY2013 to \$14.6 million in FY2014 (+30 percent). Fifty-four percent of this growth came from increased sales & use tax revenue from mining. However, county 4 percent sales & use tax revenue decreased

from \$14.6 million to \$8.7 million (-42 percent) between FY2014 to FY2017. Forty-two percent of this reduction came from decreased sales & use tax revenue from mining.

The Economic Profile System-Human Dimensions Toolkit indicates that federal land payments to local governments in Johnson County totaled \$1.3 million in FY2015. The largest source of federal land payments to the county was Payment in Lieu of Taxes (PILT) representing 76 percent of the total amount (\$999,235). PILT payments are intended to compensate county governments for non-taxable federal lands within their borders. It is based on a maximum per-acre payment reduced by other federal revenue sharing payments and is subject to a per capita population cap. The second largest source of federal payments to the county was Forest Service Payments representing 14 percent of the total amount (\$188,703). Forest Service payments can include 25 Percent Revenue Sharing funds, Secure Rural School & Community Self Determination Act funds, and Bankhead-Jones Forest Grasslands funds. The third source of federal payments to the county was BLM payments representing 10 percent of the total amount (\$125,501). BLM payments represent revenue sharing funds including grazing fees through the Taylor Grazing Act. Of the \$1.3 million in Federal land payments to the county in FY2015, 84 percent went to county government (\$1.1 million), 6 percent went to local school districts (\$80,199), and 9 percent (\$123,812) to grazing districts. In FY2015, Federal Land Payments to the county represented \$1.72 per eligible acre of Federal land. The average for Wyoming was \$0.94 per eligible acre of Federal land and nationally it was \$0.74.

Johnson County government expenditures totaled \$18.5 million in FY2017. The largest cost categories were Construction (\$4.9 million), Road and Bridge (\$2.6 million), Other Expenses (\$2.0 million), Jail (\$1.2 million), and County Sheriff (\$1.1 million). Together these five cost categories account for two-thirds of the county expenditures. County expenditures increased by \$3.6 million (24 percent) from FY2014 to FY2017. The largest increases were in Construction (+\$3.4 million) and Other Expenses (+\$2.0 million). There was also a \$2.2 million decrease in County Administration expenditures between FY2014 and FY2017. On a per capita basis, county expenditures increased by 26 percent from \$1,732 in FY2014 to \$2,184 in FY2017.

### **Natural Resource Based Industry Profiles**

In 2016, the Mining sector in Johnson County produced 1.3 million barrels of oil and 110.8 billion cubic feet (bcf) of natural gas, 288,855 pounds of uranium, and 263,120 tons of sand and gravel. The mining production in the county had an assessed valuation of \$181.7 million dollars in 2017 (2017 assessed valuation for mineral production is based on 2016 production). This valuation represented 45 percent of the total assessed valuation for the county. Based on the county mill levy, the mineral industry generated \$12.0 million in property tax revenue in 2017. Of this total, 67 percent went to K-12 schools (\$8.1 million), 18 percent went to county government (\$2.2 million), and 15 percent went to county special districts (\$1.8 million). Special districts in the county included: Hospital, Cemetery, Solid Waste Disposal, Rural Health Care and Conservation. In 2016, the mining industry in the county supported 384 jobs with labor earnings of \$14.5 million. This represented 6 percent of total employment and 7 percent of total labor earnings in the county. The percent of total employment in mining for the county was

nearly 9 times the national percentage (0.7 percent) indicating that Mining was an area of specialization within the county's economy. The average earnings per job for mining in the county were \$37,654 which was 8 percent above the county average (\$34,947). The mining industry ranked 7<sup>th</sup> out of 23 sectors in the county's economy in terms of total employment and 3<sup>rd</sup> out of 23 sectors in terms of total labor earnings.

In 2012, there were 358 agricultural operations in Johnson County. These operations managed 2.0 million acres of land in the county. Included in this acreage is 97 percent of the private land in the county. Of the total land in agriculture, 96 percent is classified as grazing land, 2 percent as cropland, less than 1 percent as woodlands, and less than 1 percent as farmsteads and buildings. The average size of an agricultural operation in the county was 5,686 acres. The total cattle and sheep inventory in the county was 90,636 head including 62,742 head of cattle and calves and 27,894 head of sheep and lambs. In 2014, the county ranked 10<sup>th</sup> out of 23 counties in Wyoming in terms of all cattle and 6<sup>st</sup> out of 23 counties in terms of all sheep. It also ranked 11<sup>th</sup> in alfalfa hay production and 10<sup>th</sup> in other hay production. In terms of investment by agricultural operators, the estimated total market value of lands, buildings, and equipment for agriculture in the county was \$1.3 billion. This total included \$1.2 billion in land and buildings and \$42.8 million for equipment and machinery. The average investment per agricultural operation was \$3.6 million. In 2012, agricultural operations in the county paid \$1.5 million in property taxes.

The gross revenue for the agricultural industry in the county in 2015 was \$48.4 million. Of this total, 74 percent was from cash receipts for livestock, 7 percent was from cash receipts for crops, 14 percent was from miscellaneous sources, and 4 percent was from government payments. Total employment for agriculture in 2016 was 464 jobs with labor earnings of \$5.4 million. This represented 8 percent of the total jobs in the county. The percent of total employment in agriculture for the county was more than 5 times the national percentage (1.4 percent) indicating that agriculture was an area of specialization within the county's economy. In 2014, county agriculture labor earnings were 5.4 million which was 3 percent of the county total. Average earnings per job were \$11,664 which was one-third of the county average. Average earnings per job in agriculture tend to be lower because the employment estimates include a large number of small part-time and lifestyle operations that generate limited labor earnings. Bureau of Labor Statistics (BLS) data may be a better indicator of average earnings per job for commercial agricultural employment in the county. For 2016, BLS data indicates that the average earnings per job for agricultural employment in the county were \$37,150. The county's agriculture industry ranked 5<sup>th</sup> out of 23 sectors in the county's economy in terms of total employment and 15<sup>th</sup> out of 23 sectors in terms of total labor earnings.

In addition to jobs and income, agriculture also provides important natural resource amenities such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community. Out of economic necessity, most agricultural operations in the county cover large areas of land; as a result, agriculture can contribute substantially to maintaining open spaces on private lands in a region. As noted above, 97 percent of the private land in county is in

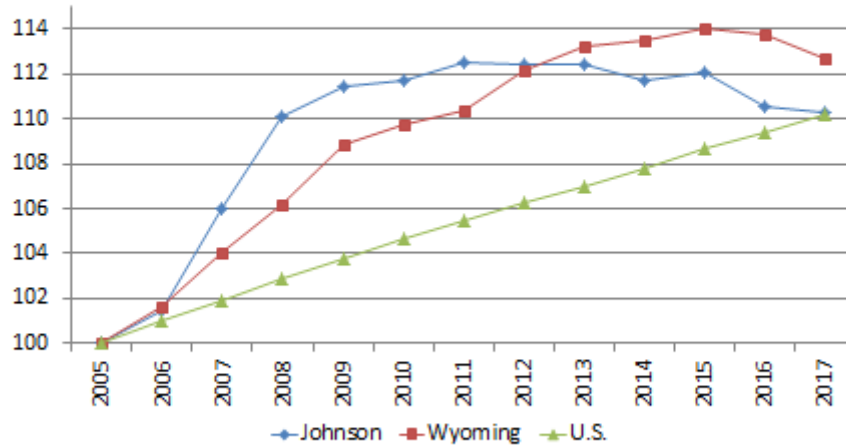
agricultural use. Due to the natural resource amenities associated with agricultural land there is public support for the retention of lands in agriculture. For example, a recent survey sponsored by the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, the Nature Conservancy, and the University of Wyoming found that nearly 80 percent of Wyoming residents felt that they personally benefit from the presence of farms and ranches in Wyoming. In addition, 76 percent of respondents were concerned with the loss of family farms and ranches in the State. Other issues of serious concerns to respondents included the availability of water for farming and ranching (71 percent), and natural areas and ranchland being split up by new development (66 percent).

Dean Runyan Associates estimates that Johnson County hosted 499,000 visitor nights in 2017. These visitors are estimated to have spent \$47.7 million during their stay in the county. In terms of accommodations, 46 percent of this spending was by visitors staying in hotels/motels, 41 percent by visitors staying in campgrounds, 6 percent was by visitors staying in private homes, 4 percent was by visitors staying in vacation homes, and 3 percent was by visitors not staying overnight. In terms of purchases, 23 percent was spent on accommodation, 25 percent was spent on food services, 9 percent was spent on food stores, 13 percent was spent on local transportation & gas, 17 percent was spent on arts, entertainment, and recreation, and 13 percent was spent on retail sales.

Dean Runyan estimated that the travel industry generated 620 direct jobs in the county in 2016. This represents 10 percent of total employment in the county. Sixty percent of these jobs were in the accommodations and food service sector, 21 percent were in the arts/entertainment/recreation sector, and 18 percent were in the retail trade sector and 2 percent were in the other travel sector. The labor earnings associated with this employment was estimated to be \$14.4 million. This represents 7 percent of the total labor earnings for the county. Average earnings per job for the travel industry in the county for 2017 were \$23,226. Average earnings per job for the travel industry were two-thirds of the county average (\$34,947). The tax revenue associated with the county's travel industry is estimated to be \$2.6 million with \$0.9 million (35 percent) going to local government and \$1.7 million (65 percent) going to state government. The Economic Research Service classifies the county as a Recreation Dependent County.

# DEMOGRAPHICS

Figure 1.  
Population Growth Index: 2005-2017

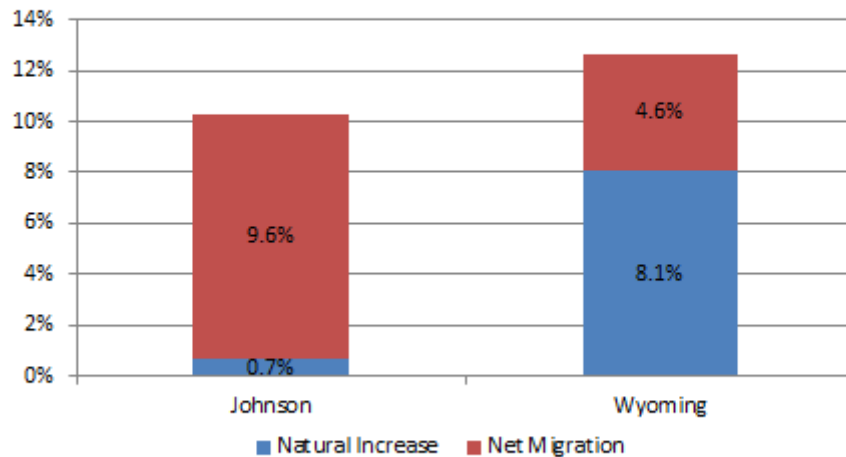


Population growth is an important indicator of the vitality of a county's economy. Overall, Johnson County experienced positive population growth between 2005 and 2015, increasing from 7,685 residents in 2005 to 8,476 in 2016 (+10 percent). The county's population growth rate was lower than Wyoming's (+13 percent) and comparable to the U.S.'s (+10 percent) during this time period (Figure 1). However, there was substantial variability in the county's population over the time period. From 2005 to 2008, the county's population increased by 10 percent. The growth in county population slowed to 6 percent between 2008 and 2011. From 2011 to 2015, the county's population remained relatively constant at around 8,600 residents. Between 2015 and 2017, the county's population declined by nearly 2 percent (-140 residents).

**Data Sources:** Wyoming Department of Administration and Information. 2018. Economic Analysis Division, Wyoming Population Estimates and Forecasts (<http://eadiv.state.wy.us/pop/pop.html>).



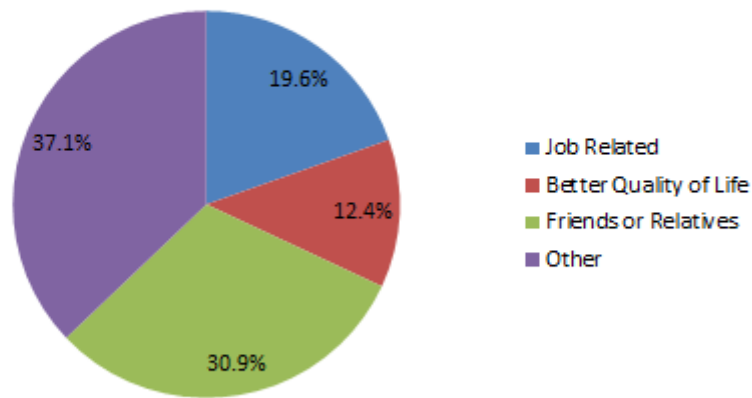
Figure 2.  
Comparison of Source of Population Change: 2005-2017



Population increases can occur in one of two ways: 1) Natural Increase (more births than deaths) or 2) Net In-Migration (more people moving in than moving out). Between 2005 and 2017, Johnson County experienced population growth due to both positive Natural Increase and positive Net In-Migration (Figure 2). However, the county's population growth was almost entirely due to Net In-Migration with only 0.7 percent (+54 more births than deaths) coming from Natural Increase. As a result 93 percent of the county's population growth (9.6 percent) came from Net In-migration. In comparison, 64 percent of Wyoming's population growth came from Natural Increase and 36 percent came from Net In-Migration. The older age of county residents, which will be discussed later, may explain the lack of population growth from Natural Increase.

**Data Sources:** Wyoming Department of Administration and Information. 2018. Economic Analysis Division, Wyoming Population Estimates and Forecasts (<http://eativ.state.wy.us/pop/pop.html>).

Figure 3.  
Primary Reason for Moving to Johnson County: 2010-2017



Individuals move to an area for a variety of reasons ranging from economic to aesthetic. Data from the Wyoming Housing Database Partnership for 2010 through 2017 (Figure 3) indicates that the most frequent reason given by new residents to Johnson County for moving to Wyoming was other factors, perhaps including retirement. The second most frequent reason was to be closer to friends and relatives who lived in the area (31 percent). The third most frequent reason was job related factors (20 percent). Job related factors included Job Transfers, New Jobs, Better Employment Opportunities, and Starting or Expanding a Business. About 12 percent of new residents surveyed indicated that a better quality of life was the primary reason for moving to the county. This data is from the Housing Needs Assessment Survey conducted by the Wyoming Housing Database Partnership in cooperation with the Wyoming Department of Transportation. The survey results are based on a random sample of new residents who were exchanging their previous state's driver's licenses for a Wyoming driver's license.

**Data Source:** Wyoming Community Development Authority, Wyoming Housing Database Partnership (<https://www.wyomingcda.com/demographics/>).

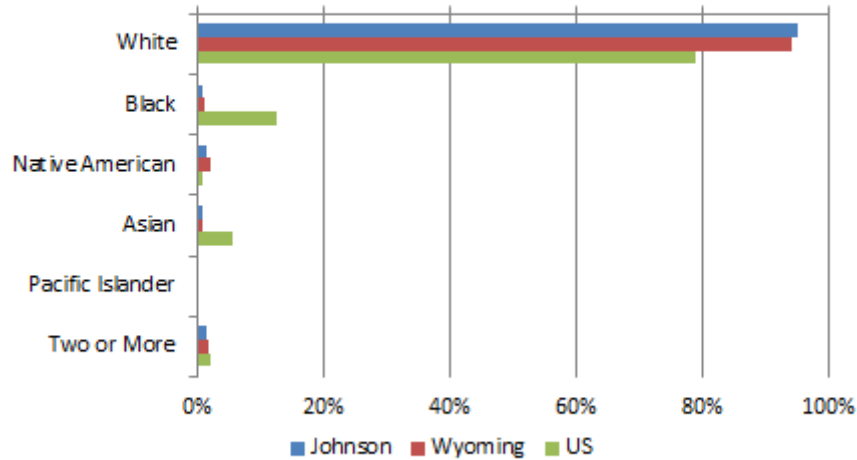
Figure 4.  
Comparison of Population Age Distribution: 2016



In 2016, the largest age groups for Johnson County residents were adults 45 to 64 years old (28 percent) and adults 65 and over (23 percent). Combined, these two age groups represented more than one-half of the total county population (Figure 4). The next largest age group was adults 25 to 44 (22 percent), followed by youth 5 to 17 (17 percent), young adults 18 to 24 (6 percent), and children under 5 (5 percent). The population distribution for the county was under represented at the lower end of the age spectrum relative to Wyoming and the U.S. Compared to Wyoming and the U.S., the county had a lower proportion of its overall population in the less than 5 age category, the 5 to 17 age category, the 18 to 24 age category, and the 25 to 44 age category. This was especially true for the 18 to 24 and 25 to 44 age categories. At the upper end of the age spectrum, the county had a higher proportion of residents in the 45 to 64 age category and the 65 and over age category. This was especially true for the 65 and over age category. The significantly lower proportion of the county's population in the 18 to 24 and 25 to 44 age categories may indicate that the county has difficulty retaining and attracting young adults to live and work in the county. The higher proportion of county residents in the 45 to 64 age category suggests that the county may see a continued aging of its population as these residents become retirement age. The median age for the county in 2016 (45.3 years) was substantially higher than the median age for Wyoming (37.1 years) and the median age for the U.S. (37.9 years).

**Data Source:** Wyoming Department of Administration and Information. 2018. Economic Analysis Division, Wyoming Population Estimates and Forecasts (<http://eativ.state.wy.us/pop/pop.html>).

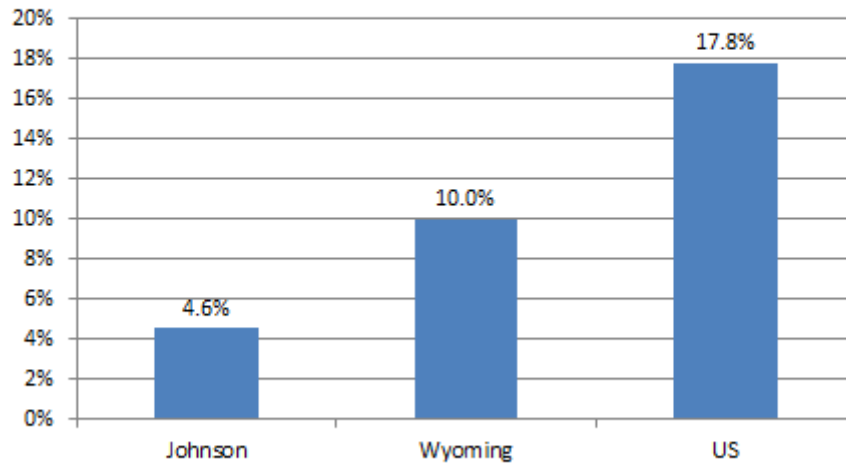
Figure 5.  
Comparison of Population by Race: 2016



Like most of Wyoming, White is the predominate category of race in Johnson County, accounting for 95 percent of the total population (Figure 5). The percentage of the population that is White in the county was comparable to Wyoming’s (94 percent) and substantially higher than for the U.S. (79 percent). The other five races identified by the federal government account for the remaining 5 percent with Two or More Races (1.6 percent) and Native American (1.5 percent) being the most common, followed by Black (0.9 percent), Asian (0.9 percent), and Pacific Islanders (0.0 percent). The proportion of the county’s population that was Black, Asian, Pacific Islander, or Two or More races was lower than for either Wyoming or the U.S. The proportion of the county’s population that was Native American (1.5 percent) was higher than the U.S. (0.7 percent) but lower than Wyoming (2.1 percent).

**Data Source:** Wyoming Department of Administration and Information. 2018. Economic Analysis Division, Wyoming Population Estimates and Forecasts (<http://eadiv.state.wy.us/pop/pop.html>).

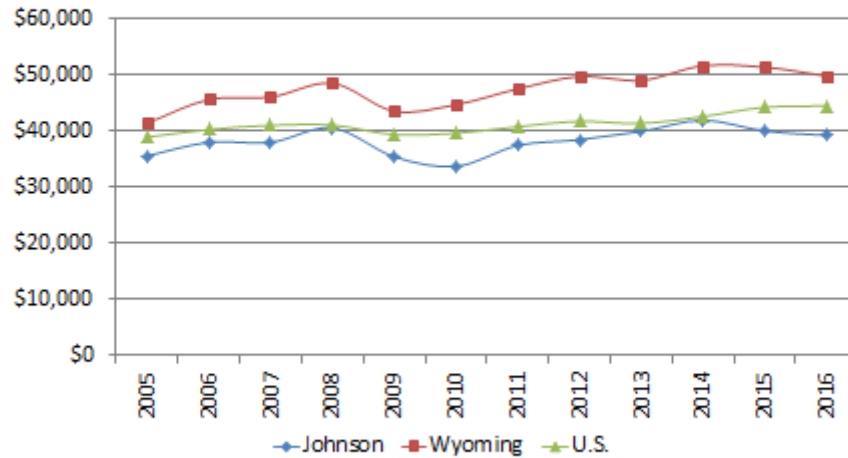
Figure 6.  
Comparison Percent of Population Hispanic: 2016



The federal government defines the term “Hispanic” as an ethnicity rather than a specific race. Thus, Hispanics can be individuals of any race that self-identify themselves as “Hispanic” or “Latino” based on heritage, nationality group, lineage, or country of birth of the person or person’s parents or ancestors before their arrival in the United States. In Johnson County, as shown in Figure 6, the percentage of the population classifying themselves as Hispanic (5 percent) was one-half the percentage for Wyoming (10 percent) and one-fourth the percentage for U.S. (18 percent).

**Data Source:** Wyoming Department of Administration and Information. 2018. Economic Analysis Division, Wyoming Population Estimates and Forecasts (<http://eativ.state.wy.us/pop/pop.html>).

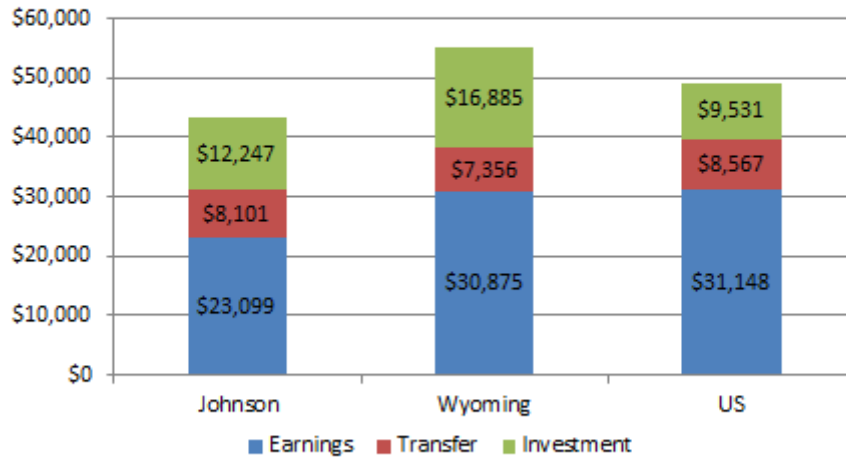
Figure 7.  
Per Capita Income: 2005-2016  
(Adjusted for Inflation)



Per capita income serves as a general indicator of the economic well-being of a county’s population. In 2005, per capita income in Johnson County was \$35,570 in 2009 dollars (Figure 7). This was 14 percent below Wyoming’s per capita income (\$41,439) and 9 percent below the U.S. per capita income (\$38,916). From 2005 to 2016, after adjusting for inflation, per capita income for the county increased by 10 percent to \$39,240. Despite this increase, in 2016, the county’s per capita income was 21 percent lower than the Wyoming average (\$49,779) and 12 percent below the U.S. average (\$44,478). There are three sources of per capita income: 1) net labor earnings including wages, salaries, and proprietor (self-employed) income, 2) government transfer payments such as Social Security, Medicare, Medicaid, and various income assistance program payments, and 3) investment income representing property income in the form of dividends, interest, and rents. The majority of the growth in the county’s per capita income between 2005 and 2016 was the result increased transfer payments (57 percent) with 49 percent coming from increased net labor earnings and investment income contribution declining by 6 percent. Transfer payments were the fastest growing individual source of per capita income between 2005 and 2016 increasing by 40 percent, while net labor income increased by 9 percent and investment income declined by 2 percent. In 2005, net labor earnings represented 54 percent of total per capita income, with investment income representing 32 percent, and transfer payments representing 15 percent. In 2016, net labor income represented 53 percent of total per capita income, investment income represented 19 percent, and transfer payments represented 28 percent. The increase in the county’s transfer payments are probably retirement related.

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

**Figure 8.**  
**Comparison of Per Capita Income by Source 2016**

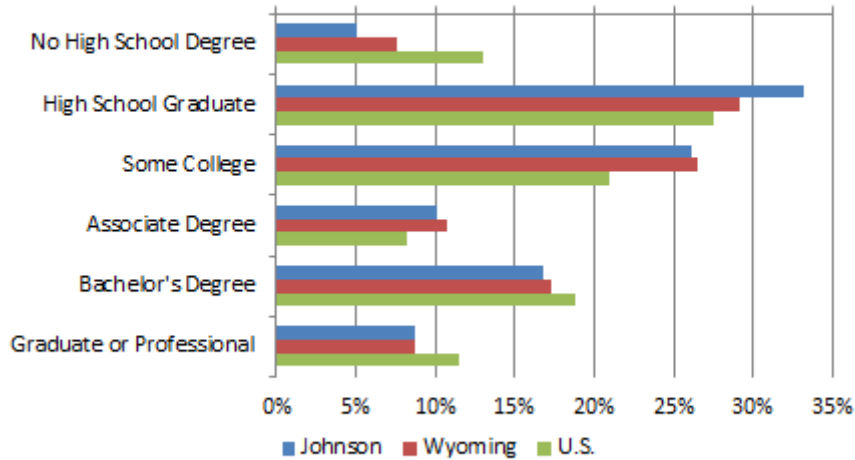


In 2016, per capita income for Johnson County was \$43,447 in 2016 dollars (Figure 8). This level of income was 21 percent below the per capita income for Wyoming (\$55,116) and 12 percent below the per capita income for the U.S. (\$49,246). Among the three regions, the county had the lowest per capita labor earnings (\$23,099) compared to Wyoming (\$30,875) and the U.S. (\$31,148). In 2016, the county had per capita transfer payments of \$8,101 which was 10 percent higher than per capita transfer payments for Wyoming (\$7,356), and only 5 percent lower than per capita transfer payments for the U.S. (\$8,567). The county’s per capita investment income (\$12,247) was 27 percent below per capita investment income for Wyoming (\$16,885) but 28 percent higher than per capita investment income for the U.S. (\$9,531). In 2016, 94 percent of county transfer payments were retirement related.

The county’s 2016 unemployment rate (5.3 percent) was the same as Wyoming’s unemployment rate (5.3 percent) and somewhat higher than the U.S. unemployment rate (4.6 percent). While total per capita income for the county was 21 percent below the state average, the Wyoming Economic Analysis Division estimates that the county’s cost-of-living for the second quarter of 2016 was 2 percent below the state average. This difference suggests that, on average, county residents were economically worse-off than the rest of the state in 2016. However, the percent of the county’s population that was below the poverty level (8.8 percent) was lower than the Wyoming’s rate (10.9 percent) and significantly lower than the U.S. rate (14.0 percent).

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

**Figure 9.**  
**Level of Educational Attainment, 2012-2016**  
**(Population 25 Years or Older)**



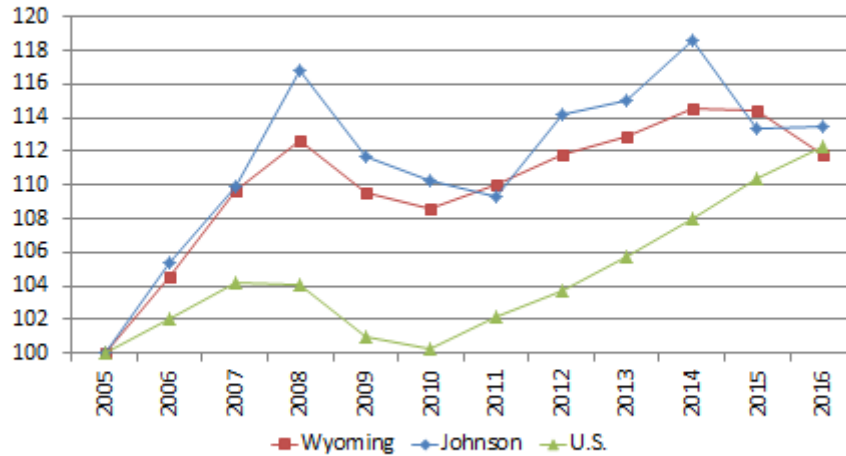
Overall, the educational attainment of Johnson County’s population in terms of a high school degree or higher (95 percent) was slightly higher than Wyoming’s (92 percent) and significantly higher than the U.S. (87 percent). The county’s population was less educated in terms of college bachelors or advanced degrees than Wyoming or the U.S. (25 percent vs. 26 percent vs. 30 percent). The percentage of the county population without a high school degree (5 percent) was lower than Wyoming’s (8 percent) and the U.S. (13 percent). The percentage of the county’s population with a high school degree (33 percent) was higher than Wyoming’s (29 percent) and higher than the U.S. (27 percent). The percentage of the county’s population with some college (26 percent) was lower than Wyoming’s (27 percent) and higher than the U.S. (21 percent). The percentage of the county’s population with an associate degree (10 percent) was lower than Wyoming’s (11 percent) and higher than the U.S. (8 percent). The percentage of the county’s population with a bachelor degree (17 percent) was comparable to Wyoming’s (17 percent) and the lower than the U.S. (19 percent). The percentage of the county’s population with a graduate or professional degree (9 percent) was comparable to Wyoming’s (9 percent) and lower than the U.S. (12 percent).

In terms of access to educational resources, the county has one public school districts with a total of 5 schools and a 2016 fall enrollment of 1,292. The graduation rate for the county’s school district was 83 percent compared to state average of 80 percent. The public school system had 123 certified teachers, 23 certified staff, 12 administrators, and 94 classified staff. Total general fund expenditures for the county’s public school system was \$20.6 million in 2016 with an operating cost of \$19,178 per average daily membership. This compares with an average operating cost of \$17,989 for the state.

**Data Source:** Wyoming Department of Administration and Information. 2018. Economic Analysis Division, Wyoming County Profiles 2016.



Figure 10.  
Employment Growth Index: 2005-2016



Overall, Johnson County experienced positive employment growth between 2005 and 2016. Total employment in the county increased by 13 percent from 2005 through 2016 growing from 5,370 jobs in 2005 to 6,095 jobs in 2016 (Figure 10). During this time period Wyoming employment and U.S. increased by 12 percent. However, there was substantial variability in county employment during the time period. County employment spiked between 2005 and 2008 growing by 17 percent (+902 jobs). The largest growth in employment during this time period were in Mining (+296 jobs), Construction (+134 jobs), and Real Estate, Rental, & Leasing (+129 jobs). After peaking in 2008, county employment then declined by 6 percent between 2008 and 2011 (-399 jobs). The largest declines in employment during this time period were in Mining (-235 jobs) and Construction (-213 jobs). Some of the decline from 2008 through 2011 may have been in responses to the national recession since 13 of the 23 sectors in the county's economy lost employment during this time period. After bottoming out in 2011, county employment then grew by 8 percent between 2011 and 2014 (+494 jobs). The largest growth in employment during this time period were in Construction (+196 jobs) and Real Estate, Rental, & Leasing (+82 jobs). Finally, after again peaking in 2014, county employment declines by 3 percent between 2014 and 2016 (-272 jobs). The largest decline in employment during this time period were in Construction (-305 jobs) and Mining (-82 jobs).

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

**Figure 11.**

**Johnson County Employment by Sector: 2016**

Sector	Jobs	Percent	LQ
Local Government	751	12.3%	1.68
Real Estate, Rental, & Leasing	601	9.9%	2.13
Accommodations & Food Service	571	9.4%	1.26
Retail Trade	542	8.9%	0.89
Agriculture	464	7.6%	5.58
Construction	397	6.5%	1.25
Mining	384	6.3%	8.61
Finance & Insurance	320	5.3%	1.03
Professional Services	298	4.9%	0.69
Other Services	282	4.6%	0.79
Health Care & Social Assistance	255	4.2%	0.37
Arts, Entertainment, & Recreation	167	2.7%	1.23
Transportation & Warehousing	161	2.6%	0.71
Management Services	146	2.4%	0.32
Federal - Civilian	130	2.1%	1.45
Forestry, Fishing, & Ag Support	121	2.0%	4.20
Manufacturing	120	2.0%	0.29
State Government	116	1.9%	0.70
Wholesale Trade	109	1.8%	0.50
Educational Services	56	0.9%	0.38
Information	48	0.8%	0.45
Military	44	0.7%	0.73
Utilities	12	0.2%	0.63
<b>Total</b>	<b>6,095</b>	<b>100.0%</b>	<b>N.A.</b>

Local Government, which includes the public school district, was the largest source of employment in the county in 2016, representing 12 percent of total jobs (Figure 11). Following Local Government were Real Estate, Rental, & Leasing (10 percent), Accommodations & Food Service (9 percent), Retail Trade (9 percent), and Agriculture (8 percent). These five sectors account for nearly one-half of the total employment in the county. In addition, Construction (6 percent), Mining (6 percent), and Finance & Insurance (5 percent) each account for more than 5 percent of total county employment.

The location quotients (LQ), in the fourth column of Figure 11, were used to identify Defining Industries in the county. A location quotient is the ratio of an industry's share of total employment in the region relative to the industry's share of total employment at the national level. A large location quotient is an indication of specialization within the county's economy. Defining Industries are important because they play a significant role in a region's growth over time. The Federal Reserve Bank of Kansas City considers Defining Industries as those with a locational quotient of at least 1.25 that account for at least 0.2

percent of total employment in the region. Based on this definition Johnson County has eight Defining Industries including: Mining (8.61), Agriculture (5.58), Forestry, Fishing, & Ag Support (4.20), Real Estate, Rental, & Leasing (2.13), Local Government (1.68), Federal – Civilian (1.45), Accommodations & Food Service (1.26), and Construction (1.25). These eight sectors are relatively more important in the county's economy than they are at the national level.

The Economic Research Service classifies the county as both a Recreation Dependent County and a Retirement Destination County. The Recreation Dependent classification is based on an index which considers employment, earnings, and seasonal housing. The Retirement Destination classification is based on the growth in residents 60 years of age and over between 2000 and 2010 due to net in-migration.

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25 and Woods & Poole Economics. 2018. 2018 State Profile: State and County Projections to 2050, Washington, D.C (numbers in italics).

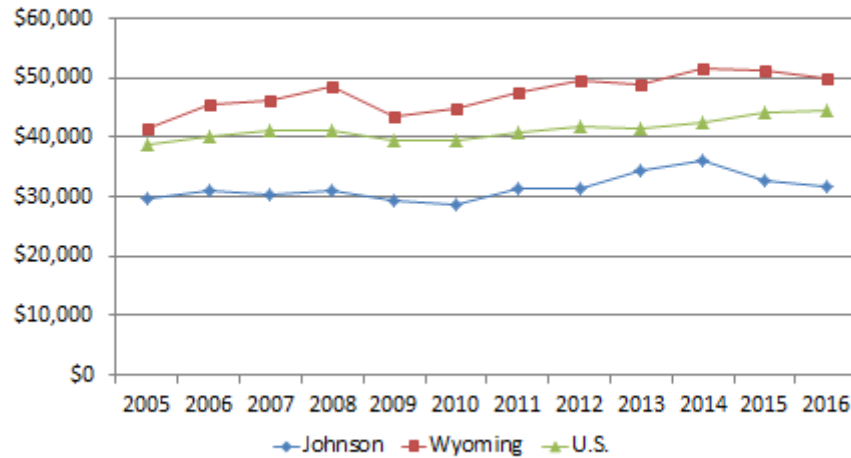
**Figure 12.****Johnson County Employment by Sector: 2005, 2008, 2011, 2014, 2016**

Sector	2005	2008	2011	2014	2016	Change 2005-2016
Real Estate, Rental, & Leasing	329	458	473	555	601	272
Agriculture	364	396	432	448	464	100
Local Government	652	699	749	752	751	99
Finance & Insurance	226	245	314	316	320	94
Professional Services	207	262	222	291	298	91
Accommodations & Food Service	512	553	551	565	571	59
Mining	339	635	400	466	384	45
Arts, Entertainment, & Recreation*	125	163	142	173	167	42
Management Services	108	169	187	139	146	38
Other Services	248	258	252	274	282	34
Health Care & Social Assistance	222	261	246	286	255	33
Educational Services	41	47	49	54	56	15
Transportation & Warehousing	148	170	166	162	161	13
State Government	110	113	113	116	116	6
Military	43	50	50	46	44	1
Utilities	13	18	13	11	12	-1
Wholesale Trade	110	84	91	76	109	-1
Forestry, Fishing, & Ag Support	125	136	148	141	121	-4
Manufacturing	125	83	82	116	120	-5
Retail Trade	547	560	507	509	542	-5
Federal - Civilian	136	141	132	124	130	-6
Information	55	52	48	45	48	-7
Construction	585	719	506	702	397	-188
<b>Total</b>	<b>5,370</b>	<b>6,272</b>	<b>5,873</b>	<b>6,367</b>	<b>6,095</b>	<b>725</b>

Overall, employment in Johnson County increased by 13 percent from 2005 through 2016 (Figure 12). The largest increases in employment came from Real Estate, Rental & Leasing (+272 jobs), Agriculture (+100 jobs), Local Government (+99 jobs), Finance & Insurance (+94 jobs) and Professional Services (+91 jobs). During this time period, eight sectors lost employment, Construction (-188 jobs), Information (-7 jobs), Federal – Civilian (-6 jobs), Retail Trade (-5 jobs), Manufacturing (-5), Forestry, Fishing, & Ag Support (-4 jobs), Wholesale Trade (-1 Job), and Utilities (-1 Job).

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25 and Woods & Poole Economics. 2018. 2018 State Profile: State and County Projections to 2050, Washington, D.C (numbers in italics).

Figure 13.  
Comparison of Average Earnings Per Job: 2005-2016  
(Adjusted for Inflation)



In addition to the number of jobs, the labor earnings associated with those jobs is an important consideration. Overall, average earnings per job are a general measure of the economic well-being of the local workforce. Figure 13 illustrates average earnings per job for Johnson County compared to Wyoming and the U.S. Over time, the county averages earning per job have tended to be substantially below the Wyoming and U.S. averages. In 2005, the average earnings per job for the county were \$29,601, in 2009 dollars, which was 29 percent below the Wyoming average earnings per job (\$41,439) and 24 percent below the U.S. average earnings per job (\$38,916). From 2005 through 2016, after adjusting for inflation, county average earnings per job increased by 7 percent to \$31,563. Despite this increase, 2016 county average earnings per job were 37 percent below the Wyoming average earnings per job (\$49,779) and 29 percent above the U.S. average earnings per job (\$44,478). In addition, county average earnings per job declined by 12 percent from 2014 to 2016 (\$35,935 to \$31,563). While total per capita income for the county was 37 percent below the state average, the Wyoming Economic Analysis Division estimates that the county’s cost-of-living for the second quarter of 2016 was 2 percent below the state average. This difference suggests that, on average, the county workforce was economically worse-off than the rest of the state in 2016.

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

**Figure 14.****Average Earnings Per Job for Johnson County: 2016**

Sector	Jobs	Earnings	
		(\$1,000)	AEPJ
Utilities	12	\$1,672	\$139,333
Federal - Civilian	130	\$11,761	\$90,469
State Government	116	\$8,478	\$73,086
Local Government	751	\$51,260	\$68,256
Transportation & Warehousing	161	\$10,166	\$63,143
Forestry, Fishing, & Ag Support	121	\$5,982	\$49,438
Construction	397	\$19,373	\$48,798
Mining	384	\$14,459	\$37,654
Wholesale Trade	109	\$3,788	\$34,752
Professional Services	298	\$9,480	\$31,812
Management Services	146	\$4,527	\$31,007
Military	44	\$1,348	\$30,636
Health Care & Social Assistance	255	\$7,610	\$29,843
Other Services	282	\$8,033	\$28,486
Information	48	\$1,287	\$26,813
Finance & Insurance	320	\$8,010	\$25,031
Accommodations & Food Service	571	\$13,082	\$22,911
Real Estate, Rental, & Leasing	601	\$12,299	\$20,464
Retail Trade	542	\$10,739	\$19,814
Manufacturing	120	\$1,719	\$14,325
Educational Services	56	\$664	\$11,857
Agriculture	464	\$5,412	\$11,664
Arts, Entertainment, & Recreation	167	\$1,853	\$11,096
<b>Total</b>	<b>6,095</b>	<b>213,002</b>	<b>\$34,947</b>

Average earnings per job (AEPJ), which includes employer paid benefits, varies substantially by sector. In 2016, AEPJ in Johnson County ranged from over \$139,000 for the Utilities sector to slightly more than \$11,000 for Arts, Entertainment, & Recreation (Figure 14). After Utilities, the next highest AEPJ was Federal - Civilian (\$90,469), State Government (\$73,086), Local Government (\$68,256) and Transportation & Warehousing (\$63,143). Of the 23 sectors in the county's economy, only 5 had AEPJ greater than the Wyoming average (\$55,116). These 5 sectors represented only 19 percent of the total employment in the county resulting in the overall lower AEPJ for the county. Similarly, only 6 sectors in the county's economy had AEPJ higher than the U.S. average (\$49,246). These 6 sectors represented only 21 percent of the total employment in the county.

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25 and Woods & Poole Economics. 2018. 2018 State Profile: State and County Projections to 2050, Washington, D.C (numbers in italics).

**Figure 15.**  
**Total Labor Earnings for Johnson County: 2016**

Sector	Jobs	AEPJ	Earnings	
			(\$1,000)	Percent
Local Government	751	\$68,256	\$51,260	24.1%
Construction	397	\$48,798	\$19,373	9.1%
Mining	384	\$37,654	\$14,459	6.8%
Accommodations & Food Service	571	\$22,911	\$13,082	6.1%
Real Estate, Rental, & Leasing	601	\$20,464	\$12,299	5.8%
Federal - Civilian	130	\$90,469	\$11,761	5.5%
Retail Trade	542	\$19,814	\$10,739	5.0%
Transportation & Warehousing	161	\$63,143	\$10,166	4.8%
Professional Services	298	\$31,812	\$9,480	4.5%
State Government	116	\$73,086	\$8,478	4.0%
Other Services	282	\$28,486	\$8,033	3.8%
Finance & Insurance	320	\$25,031	\$8,010	3.8%
Health Care & Social Assistance	255	\$29,843	\$7,610	3.6%
Forestry, Fishing, & Ag Support	121	\$49,438	\$5,982	2.8%
Agriculture	464	\$11,664	\$5,412	2.5%
Management Services	146	\$31,007	\$4,527	2.1%
Wholesale Trade	109	\$34,752	\$3,788	1.8%
Arts, Entertainment, & Recreation	167	\$11,096	\$1,853	0.9%
Manufacturing	120	\$14,325	\$1,719	0.8%
Utilities	12	\$139,333	\$1,672	0.8%
Military	44	\$30,636	\$1,348	0.6%
Information	48	\$26,813	\$1,287	0.6%
Educational Services	56	\$11,857	\$664	0.3%
<b>Total</b>	<b>6,095</b>	<b>\$34,947</b>	<b>213,002</b>	<b>100.0%</b>

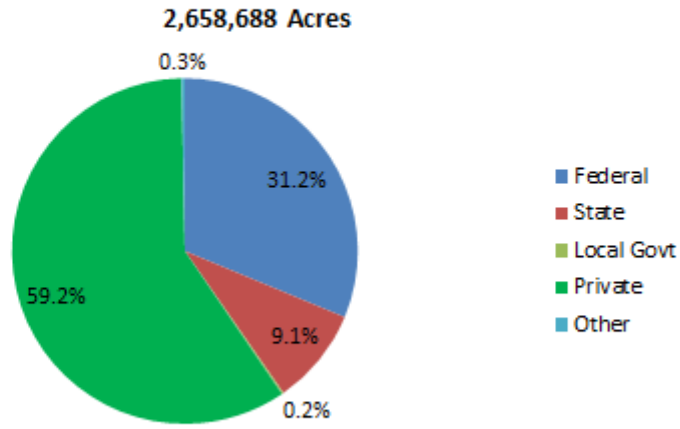
The combination of the number of jobs and the average earnings per job determines the relative importance of individual sectors in terms of total labor earnings in the Johnson County economy (Figure 15). Labor earnings are important because they represent the major source of personal income for county residents. Overall county employment generated \$213.0 million in labor earnings in 2016. Local Government (24 percent) was by far the largest source of labor earnings for the county. Following Local Government was Construction (9.1 percent) and Mining (7 percent).

**Data Source:** U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

# **LAND CHARACTERISTICS**



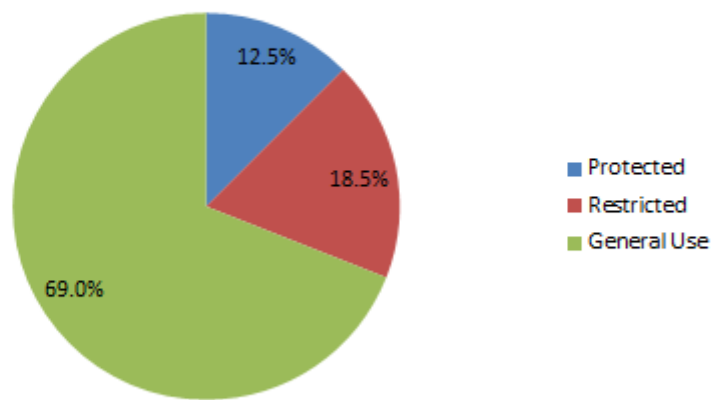
Figure 16.  
Land Ownership in Johnson County: 2012



Johnson County contains 2.7 million acres of land (Figure 16). Private land is the largest category of landownership in the county, accounting for 59 percent of the land area (1.6 million acres). Federal land represents 31 percent of the land area (830,720 acres). Of this total, the BLM manages 60 percent (502,464 acres) and the Forest Service manages 40 percent (328,256 acres). State land represents 9 percent of the county's land area (241,856 acres), with 95 percent of this land being state trust land and 5 percent being Wyoming Game & Fish Department land. There are also 64 acres of Recreation Commission land in the county. Local government owns less than one percent of the county's land area (4,224 acres). Information from the Wyoming Department of Revenue on acres taxed as agricultural land indicates that 97 percent of the private land in the county is in agricultural use (1.5 million acres). Of this total, 96 percent is classified as range land (1.4 million acres), 4 percent is classified as irrigated crop land (58,174 acres) and less than one percent is classified as dry crop land (2,758 acres).

**Data Source:** Wyoming Department of Administration and Information. 2018. Wyoming and County Profiles 2017.

**Figure 17.**  
**Management Designation of Federal Lands in Johnson County**



Federal lands are managed for different purposes under differing statutory authority. Three categories of designation are presented in Figure 17: 1) Protected, 2) Restricted., and 3) General Use.

- Protected Areas include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Water Fowl Protection Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS).
- Restricted Areas include Wilderness Study Areas (NPS, FWS, FS, BLM) and Inventoried Roadless Areas (FS).
- General Use Areas include Public Domain Lands (BLM) and National Forests and Grasslands (FS).

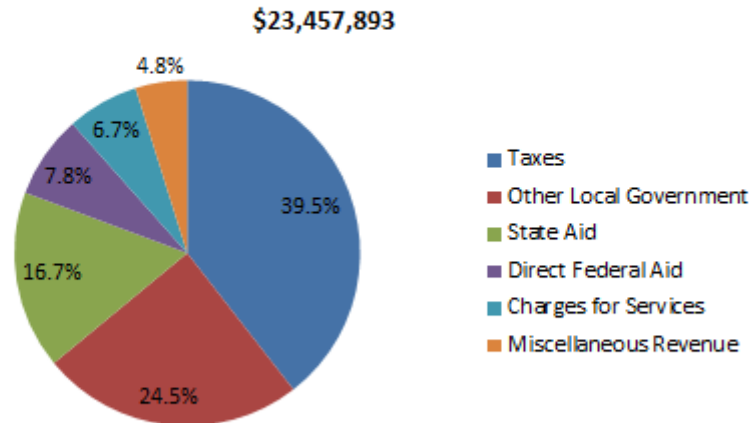
This data was obtained from the Economic Profile System – Human Dimension Toolkit (NPS = National Park Service, FWS = Fish and Wildlife, FS = Forest Service, and BLM = Bureau of Land Management).

For Johnson County, Economic Profile System data indicates that 69 percent of Federal lands in the county are designated for general use with 18 percent designated for restricted use, and 13 percent Federal lands designated for protected use. In comparison, 21 percent of total Federal lands in Wyoming are classified as protected, 13 percent are classified as restricted and 66 percent are classified as general use.

**Data Source:** Headwaters Economics. 2018. Economic Profile System-Human Dimension Toolkit, A Profile of Land Use (page 3).

# **County Government Finances**

Figure 18.  
Johnson County Government Revenue: FY2017

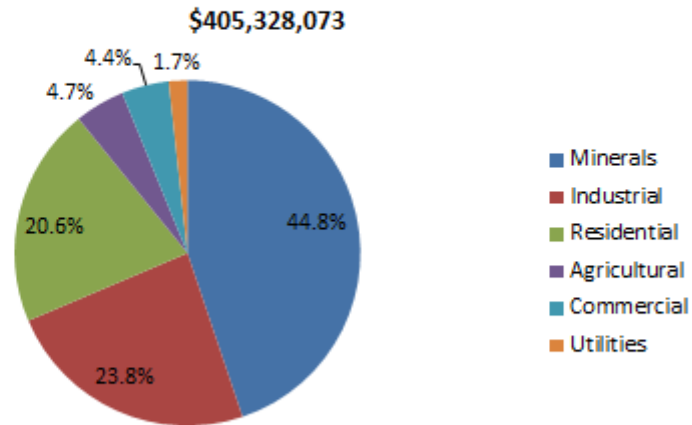


Wyoming Department of Audit information indicates that the total revenue for Johnson County Government was \$23.5 million in FY2017 (Figure 18). Of this total, the largest sources were Taxes which included property taxes and any optional sales tax revenue (39 percent), Other Local Government Revenue (24 percent) and State Aid which included the county’s share of the 4 percent sales and use tax revenue (17 percent). Combined these three sources represented 81 percent of the total county government revenue in FY2017. Following these three revenue sources were Direct Federal Aid (8 percent), Charges for Services (7 percent), and Miscellaneous Revenue (5 percent). Combined these revenue sources represented 19 percent of the total county government revenue in FY2017. Per capita revenue for the county in FY2017 was \$2,768 which was 2.2 times the state average (\$1,254).

From FY2013 to FY 2016, county government revenue has averaged \$22.7 million with a high of \$26.4 million in FY2016 and a low of \$20.2 million in FY2014. County government revenues were 7 percent higher in FY2017 (\$23.5 million) compared to FY2013 (\$21.9 million).

**Data Source:** Wyoming Department of Audit. 2018. Cost of Maintaining County Government in Wyoming: For Fiscal Year July 1, 2016-June 30, 2017: As prepared from Reports submitted to the Department of Audit Public Funds.

Figure 19.  
Johnson County Assessed Valuation: 2017



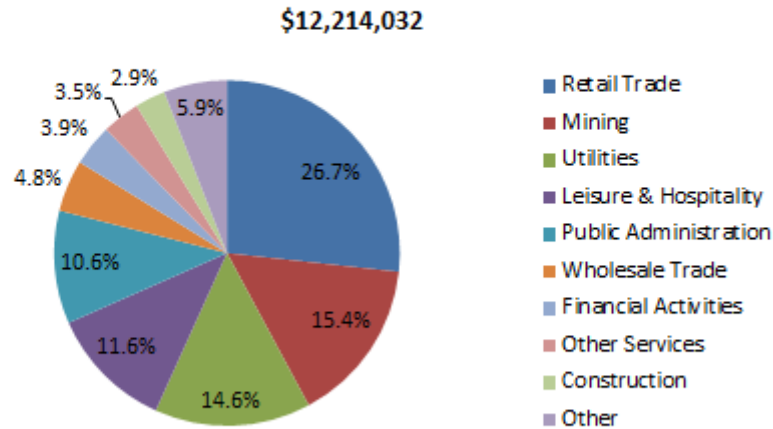
The total assessed valuation for Johnson County in 2017 was \$405.3 million (Figure 19). Forty-five percent of the total valuation was from Minerals. Following Minerals was Industrial (24 percent), Residential Property (21 percent), Agricultural Lands (5 percent), Commercial Property (4 percent), and Utilities (2 percent). The county's per capita assessed valuation (\$47,821) was 47 percent greater than Wyoming's per capita assessed valuation (\$32,495). Out of Wyoming's 23 counties, Johnson County ranked 12<sup>th</sup> in terms of total assessed valuation trailing Campbell, Carbon, Converse, Fremont, Laramie, Lincoln, Park, Sublette, Sweetwater, and Teton.

In terms of Mineral Production, natural gas represented 71 percent of total county mineral assessed valuation, crude oil represented 23 percent, uranium represented 3 percent, bentonite represented 2 percent, and sand & gravel represented less than one percent.

From 2013 to 2015, the county's assessed valuation increased from \$784.6 million to \$879.3 million (+12 percent). Eighty-nine percent of this increase was due to increases in mineral assessed valuation. However, from 2015 to 2017, the county's assessed valuation decreased from \$879.3 million to \$405.3 million (-54 percent). During this time period, the decrease in mineral assessed valuation (-\$386.1 million) exceeded the decrease in total assessed valuation (-\$379.3 million).

**Data Sources:** Wyoming Department of Revenue. 2018. 2017 Annual Report.

Figure 20.  
Johnson County Sales & Use Tax Revenue: FY2017

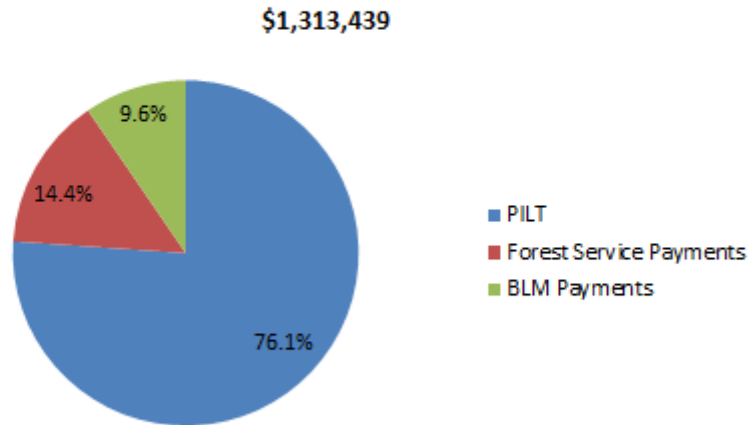


In FY2017, Johnson County's 5 percent sales and use tax generated \$12.2 million in tax revenue (Figure 20). Of this total, 49 percent (\$6.0 million) was retained by state government and 51 percent (\$6.2 million) was returned to local governments in the county. In FY2017, county government's share of the returned sales and use tax revenue was approximately \$3.5 million (56 percent) with the remaining \$2.7 million (44 percent) going to municipal governments in the county. Twenty-seven percent of the county's total sales and use tax revenue came from Retail Trade. Following Retail Trade was Mining (15 percent) and Utilities (15 percent). Combined, these three sectors contributed 57 percent of the county's total sales and use tax revenue. Leisure & Hospitality, Public Administration, Wholesale Trade, Financial Activities, Other Services, Construction and Other, combined, contributed the remaining 43 percent of total county sales and use tax revenue. Public Administration represents sales and use tax revenue on motor vehicle purchases which are collected at the time of registration in Wyoming. The county's per capita sales & use tax revenue (\$1,441) was 6 percent higher than Wyoming's per capita sales & tax revenue (\$1,364).

At a 4 percent sales and use tax rate, county sales & use tax revenues increased from \$11.2 million in FY2013 to \$14.6 million in FY2014 (+30 percent). Fifty-four percent of this growth came from increased sales & use tax revenue from mining. However, county 4 percent sales & use tax revenue decreased from \$14.6 million to \$8.7 million (-42 percent) between FY2014 to FY2017. Forty-two percent of this reduction came from decreased sales & use tax revenue from mining.

**Data Sources:** Wyoming Department of Administration and Information, Economic Analysis Division. 2016. Wyoming Sales, Use, and Lodging Tax Revenue Report, 41st Edition.

Figure 21.  
Johnson County Federal Land Payment: FY2015



The Economic Profile System-Human Dimensions Toolkit indicates that federal land payments to local governments in Johnson County totaled \$1.3 million in FY2015 (Figure 21). The largest source of federal land payments to the county was Payment in Lieu of Taxes (PILT) representing 76 percent of the total amount (\$999,235). PILT payments are intended to compensate county governments for non-taxable federal lands within their borders. It is based on a maximum per-acre payment reduced by other federal revenue sharing payments and is subject to a per capita population cap. The second largest source of federal payments to the county was Forest Service Payments representing 14 percent of the total amount (\$188,703). Forest Service payments can include 25 Percent Revenue Sharing funds, Secure Rural School & Community Self Determination Act funds, and Bankhead-Jones Forest Grasslands funds. The third source of federal payments to the county was BLM payments representing 10 percent of the total amount (\$125,501). BLM payments represent revenue sharing funds including grazing fees through the Taylor Grazing Act. Of the \$1.3 million in Federal land payments to the county in FY2015, 84 percent went to county government (\$1.1 million), 6 percent went to local school districts (\$80,199), and 9 percent (\$123,812) to grazing districts. In FY2015, Federal Land Payments to the county represented \$1.72 per eligible acre of Federal land. The average for Wyoming was \$0.94 per eligible acre of Federal land and nationally it was \$0.74.

**Data Source:** Headwaters Economics. 2018. Economic Profile System-Human Dimension Toolkit, A Profile of Federal Land Payments (page 1).

**Figure 22.****Johnson County Government Costs, FY2014 & FY2017**

	FY2014	FY2017	Change
County Costs	Amount	Amount	FY14-FY17
Construction	\$1,571,145	\$4,932,653	\$3,361,508
Road and Bridge	\$2,548,151	\$2,639,148	\$90,997
Other Expenses	\$21,399	\$1,984,434	\$1,963,035
Jail	\$1,213,172	\$1,229,814	\$16,642
County Sheriff	\$1,188,015	\$1,137,462	-\$50,553
Libraries	\$689,556	\$693,130	\$3,574
Capital	\$425,852	\$610,591	\$184,739
Parks/Recreation/Museum	\$721,138	\$586,818	-\$134,320
Courthouse	\$410,731	\$559,171	\$148,440
County Clerk	\$418,483	\$373,011	-\$45,472
Distict Court	\$418,107	\$365,069	-\$53,038
Social Services - Welfare	\$227,910	\$350,713	\$122,803
County Assessor	\$383,405	\$349,145	-\$34,260
County Attorney	\$386,863	\$339,176	-\$47,687
Fair	\$283,240	\$311,816	\$28,576
Finacial Administration	\$211,940	\$269,570	\$57,630
County Treasurer	\$231,173	\$263,570	\$32,397
Civil Defense/Emergency	\$144,796	\$211,876	\$67,080
Health (Not Hospital)	\$209,469	\$211,751	\$2,282
County Commissioners	\$192,994	\$204,319	\$11,325
Juvenile Probation	\$127,231	\$137,089	\$9,858
County Airport	\$42,000	\$129,183	\$87,183
County Administration	\$2,348,022	\$113,375	-\$2,234,647
County Planner	\$183,941	\$90,471	-\$93,470
Agricultural Department	\$107,745	\$87,001	-\$20,744
Social Services - Other	\$1,458	\$77,400	\$75,942
Circuit or Drug Court	\$1,373	\$74,635	\$73,262
County Coroner	\$72,569	\$73,694	\$1,125
Elections	\$28,507	\$71,195	\$42,688
Fire	\$21,301	\$21,241	-\$60
Protective Inspections	\$38,623	\$17,056	-\$21,567
<b>Total</b>	<b>\$14,870,309</b>	<b>\$18,515,577</b>	<b>\$3,645,268</b>

Johnson County government expenditures totaled \$18.5 million in FY2017. The largest cost categories were Construction (\$4.9 million), Road and Bridge (\$2.6 million), Other Expenses (\$2.0 million), Jail (\$1.2 million), and County Sheriff (\$1.1 million). Together, these five cost categories account of two-thirds of the county expenditures. County expenditures increased by \$3.6 million (24 percent) from FY2014 to



FY2017. The largest increases were in Construction (+\$3.4 million) and Other Expenses (+\$2.0 million). There was also a \$2.2 million decrease in County Administration expenditures between FY2014 and FY2017. On a per capita basis, county expenditures increased by 26 percent from \$1,732 in FY2014 to \$2,184 in FY2017.

**Data Source:** Wyoming Department of Audit. 2018. Cost of Maintaining County Government in Wyoming: For Fiscal Year July 1, 2016-June 30, 2017, As prepared from Reports submitted to the Department of Audit Public Funds

# **NATURAL RESOURCE BASED INDUSTRY PROFILES**

**Figure 23.**  
**Johnson County Mining Industry**

Mineral Production (2016)	Amount
Crude Oil (Bbls)	1,275,903
Natural Gas (MCF)	110,846,684
Uranium (Lbs)	288,855
Bentonite (Tons)	382,183
Sand & Gravel (Tons)	263,120
<u>Tax Revenue (2017 from 2016 Production)</u>	
Assessed Valuation	\$181,724,690
Property Tax Revenue	\$12,037,443
<u>Employment (2016)</u>	
Full & Part-Time Jobs	384
Labor Earnings	\$14,459,000
Average Earnings Per Job	\$37,654

In 2016, the Mining sector in Johnson County produced 1.3 million barrels of oil and 110.8 bcf of natural gas, 288,855 pounds of uranium, and 263,120 tons of sand and gravel (Figure 23). The mining production in the county had an assessed valuation of \$181.7 million dollars in 2017 (2017 assessed valuation for mineral production is based on 2016 production). This valuation represented 45 percent of the total assessed valuation for the county. Based on the county mill levy, the mineral industry generated \$12.0 million in property tax revenue in 2017. Of this total, 67 percent went to K-12 schools (\$8.1 million), 18 percent went to county government (\$2.2 million), and 15 percent went to county special districts (\$1.8 million). Special districts in the county included: Hospital, Cemetery, Solid Waste Disposal, Rural Health Care and Conservation. In 2016, the mining industry in the county supported 384 jobs with labor earnings of \$14.5 million. This represented 6 percent of total employment and 7 percent of total labor earnings in the county. The percent of total employment in mining for the county was nearly 9 times the national percentage (0.7 percent) indicating that Mining was an area of specialization within the county's economy. The average earnings per job for mining in the county were \$37,654 which was 8 percent above the county average (\$34,947). The mining industry ranked 7<sup>th</sup> out of 23 sectors in the county's economy in terms of total employment and 3<sup>rd</sup> out of 23 sectors in terms of total labor earnings.

**Data Sources:** Wyoming Department of Revenue. 2017. 2017 Annual Report, State Assessed Valuation: Production Year 2016. U.S. Department of Commerce. 2018. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25 & CA5.

**Figure 24.**  
**Johnson County Agricultural Industry**

	Amount
<u>Assets (2012)</u>	
Total Land in Agriculture (Acres)	2,035,591
Cattle Inventory (Head)	62,742
Sheep Inventory (Head)	27,894
Investment – Land, Buildings, Equipment	\$1,278,857,000
Property Taxes Paid	\$1,527,000
<u>Gross Revenue (2016)</u>	
	\$48,423,000
<u>Employment (2016)</u>	
Jobs	464
Labor Earnings	\$5,412,000
Average Earnings Per Job	\$11,664

In 2012, there were 358 agricultural operations in Johnson County. These operations managed 2.0 million acres of land in the county (Figure 24). Included in this acreage is 97 percent of the private land in the county. Of the total land in agriculture, 96 percent is classified as grazing land, 2 percent as cropland, less than 1 percent as woodlands, and less than 1 percent as farmsteads and buildings. The average size of an agricultural operation in the county was 5,686 acres. The total cattle and sheep inventory in the county was 90,636 head including 62,742 head of cattle and calves and 27,894 head of sheep and lambs. In 2014, the county ranked 10<sup>th</sup> out of 23 counties in Wyoming in terms of all cattle and 6<sup>th</sup> out of 23 counties in terms of all sheep. It also ranked 11<sup>th</sup> in alfalfa hay production and 10<sup>th</sup> in other hay production. In terms of investment by agricultural operators, the estimated total market value of lands, buildings, and equipment for agriculture in the county was \$1.3 billion. This total included \$1.2 billion in land and buildings and \$42.8 million for equipment and machinery. The average investment per agricultural operation was \$3.6 million. In 2012, agricultural operations in the county paid \$1.5 million in property taxes.

The gross revenue for the agricultural industry in the county in 2015 was \$48.4 million. Of this total, 74 percent was from cash receipts for livestock, 7 percent was from cash receipts for crops, 14 percent was from miscellaneous sources, and 4 percent was from government payments. Total employment for agriculture in 2016 was 464 jobs with labor earnings of \$5.4 million. This represented 8 percent of the total jobs in the county. The percent of total employment in agriculture for the county was more than 5 times the national percentage (1.4 percent) indicating that agriculture was an area of specialization within the county's economy. In 2014, county agriculture labor earnings were 5.4 million which was 3 percent of the county total. Average earning per job were \$11,664 which was one-third of the county average. Average earnings per job in agriculture tend to be lower because the employment estimates include a large number of small part-time and lifestyle operations that generate limited labor earnings.

Bureau of Labor Statistics (BLS) data may be a better indicator of average earnings per job for commercial agricultural employment in the county. For 2016, BLS data indicates that the average earnings per job for agricultural employment in the county were \$37,150. The county's agriculture industry ranked 5<sup>th</sup> out of 23 sectors in the county's economy in terms of total employment and 15<sup>th</sup> out of 23 sectors in terms of total labor earnings.

In addition to jobs and income, agriculture also provides important natural resource amenities such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community. Out of economic necessity, most agricultural operations in the county cover large areas of land; as a result, agriculture can contribute substantially to maintaining open spaces on private lands in a region. As noted above, 97 percent of the private land in county is in agricultural use. Due to the natural resource amenities associated with agricultural land there is public support for the retention of lands in agriculture. For example, a recent survey sponsored by the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, the Nature Conservancy, and the University of Wyoming found that nearly 80 percent of Wyoming residents felt that they personally benefit from the presence of farms and ranches in Wyoming. In addition, 76 percent of respondents were concerned with the loss of family farms and ranches in the State. Other issues of serious concerns to respondents included the availability of water for farming and ranching (71 percent), and natural areas and rangeland being split up by new development (66 percent).

**Data Sources:** USDA. 2015. National Agricultural Statistics Service, 2012 Census of Agriculture: Wyoming State and County Data, Volume 1, Geographic Series Part 50, AC-12-A-50, Table 1. County Summary Highlights: 2012 and Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2012 and 2007. U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA45, CA25, & CA5. Freedman, K.S. and N.M. Koranta. 2014. Public Opinion on Natural Resource Conservation in Wyoming: Wyoming Open Space Initiative, Ruckelshaus Institute, A Division of the Haub School of Environment and Natural Resources, UW Extension B-1258, October 2014.

**Figure 25.**  
**Johnson County Travel Industry, 2017**

	Amount
Person-Nights	499,000
Visitor Spending	\$47.6 Million
Employment	620 Jobs
Labor Income	\$14.4 Million
Average Earnings Per Job	\$23,226
Local Tax Revenue	\$0.9 million
State Tax Revenue	\$1.7 million

Dean Runyan Associates estimates that Johnson County hosted 499,000 visitor nights in 2017 (Figure 25). These visitors are estimated to have spent \$47.7 million during their stay in the county. In terms of accommodations, 46 percent of this spending was by visitors staying in hotels/motels, 41 percent by visitors staying in campgrounds, 6 percent was by visitors staying in private homes, 4 percent was by visitors staying in vacation homes, and 3 percent was by visitors not staying overnight. In terms of purchases, 23 percent was spent on accommodation, 25 percent was spent on food services, 9 percent was spent on food stores, 13 percent was spent on local transportation & gas, 17 percent was spent on arts, entertainment, and recreation, and 13 percent was spent on retail sales.

Dean Runyan estimated that the travel industry generated 620 direct jobs in the county in 2016. This represents 10 percent of total employment in the county. Sixty percent of these jobs were in the accommodations and food service sector, 21 percent were in the arts/entertainment/recreation sector, and 18 percent were in the retail trade sector and 2 percent were in the other travel sector. The labor earnings associated with this employment was estimated to be \$14.4 million. This represents 7 percent of the total labor earnings for the county. Average earnings per job for the travel industry in the county for 2017 were \$23,226. Average earnings per job for the travel industry were two-thirds of the county average (\$34,947). The tax revenue associated with the county's travel industry is estimated to be \$2.6 million with \$0.9 million (35 percent) going to local government and \$1.7 million (65 percent) going to state government. The Economic Research Service classifies the county as a Recreation Dependent County.

**Data Source:** Dean Runyan Associates. 2018. Wyoming Travel Impacts: 2000-2017, Prepared for Wyoming Office of Tourism, Cheyenne, Wyoming.

# **TABLES**

<b>Table 1. Population 2005-2017</b>				
Year	Johnson	Wyoming	U.S.	
2005	7,685	514,157	295,516,599	
2006	7,796	522,667	298,379,912	
2007	8,146	534,876	301,231,207	
2008	8,460	546,043	304,093,966	
2009	8,565	559,851	306,771,529	
2010	8,587	564,376	309,338,421	
2011	8,645	567,602	311,644,280	
2012	8,637	576,608	313,993,272	
2013	8,637	582,341	316,234,505	
2014	8,584	583,334	318,622,525	
2015	8,616	586,102	321,039,839	
2016	8,496	584,910	323,405,935	
2017	8,476	579,315	325,719,178	
Change	791	65,158	30,202,579	
Percent	10.3%	12.7%	10.2%	
Source	Johnson	Wyoming	Johnson	Wyoming
Natural Increase	54	41,479	0.7%	8.1%
Net Migration	737	23,679	9.6%	4.6%
Total Change	791	65,158	10.3%	12.7%
Source: WY Department of A&I - Economic Analysis Division				
<b>Table 2. Primary Reason for Moving to Johnson County, 2010-2017</b>				
Reason	Number	Percent		
Job Related	19	19.6%		
Better Quality of Life	12	12.4%		
Friends or Relatives	30	30.9%		
Other	36	37.1%		
Total	97	100.0%		
Source: Wyoming Community Development Authority				



<b>Table 3. Age of Population, 2016</b>						
				Johnson	Wyoming	U.S.
Age	Johnson	Wyoming	U.S.	Percent	Percent	Percent
Under 5	446	38,145	19,927,037	5.3%	6.5%	6.2%
5 to 17	1,420	100,756	53,715,248	16.7%	17.2%	16.6%
18 to 24	513	55,188	30,843,811	6.0%	9.4%	9.5%
25 to 44	1,832	153,282	85,147,399	21.6%	26.2%	26.4%
45 to 64	2,369	150,318	84,249,823	27.9%	25.7%	26.1%
65 and over	1,906	87,812	49,244,195	22.5%	15.0%	15.2%
<b>Total</b>	<b>8,486</b>	<b>585,501</b>	<b>323,127,513</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Median Age	45.3	37.1	37.9			

Source: WY Department of A&I - Economic Analysis Division

<b>Table 4. Race and Ethnicity of Population 2016</b>						
				Johnson	Wyoming	U.S.
Race	Johnson	Wyoming	U.S.	Percent	Percent	Percent
White	8,066	550,658	255,439,895	95.1%	94.0%	79.1%
Black	79	6,717	40,229,236	0.9%	1.1%	12.4%
Native American	126	12,322	2,387,421	1.5%	2.1%	0.7%
Asian	77	5,410	17,741,457	0.9%	0.9%	5.5%
Pacific Islander	4	477	567,208	0.0%	0.1%	0.2%
Two or More	134	9,917	6,762,296	1.6%	1.7%	2.1%
<b>Total</b>	<b>8,486</b>	<b>585,501</b>	<b>323,127,513</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
				Johnson	Wyoming	U.S.
Ethnicity	Johnson	Wyoming	U.S.	Percent	Percent	Percent
Hispanic	388	58,413	57,470,287	4.6%	10.0%	17.8%
Non-Hispanic	8,098	527,088	265,657,226	95.4%	90.0%	82.2%
<b>Total</b>	<b>8,486</b>	<b>585,501</b>	<b>323,127,513</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: WY Department of A&I - Economic Analysis Division

<b>Table 5. Per Capita Income 2016</b>						
				Johnson	Wyoming	U.S.
Type	Johnson	Wyoming	U.S.	Percent	Percent	Percent
Net Earnings	\$23,099	\$30,875	\$31,148	53.2%	56.0%	63.2%
Transfer Payments	\$8,101	\$7,356	\$8,567	18.6%	13.3%	17.4%
Investment	\$12,247	\$16,885	\$9,531	28.2%	30.6%	19.4%
<b>Total</b>	<b>\$43,447</b>	<b>\$55,116</b>	<b>\$49,246</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
	Deflated	Deflated	Deflated	Deflated	Deflated	Deflated
	Johnson	Johnson	Johnson	Johnson	Wyoming	U.S.
Year	Earnings	Transfer	Investment	Total	Total	Total
2005	\$19,074	\$5,218	\$11,278	\$35,570	\$41,439	\$38,916
2006	\$20,245	\$5,462	\$12,304	\$38,011	\$45,612	\$40,266
2007	\$19,590	\$5,496	\$12,900	\$37,986	\$46,054	\$41,009
2008	\$20,251	\$5,873	\$14,429	\$40,553	\$48,509	\$41,055
2009	\$18,617	\$6,153	\$10,653	\$35,423	\$43,549	\$39,376
2010	\$18,298	\$6,517	\$8,894	\$33,709	\$44,711	\$39,622
2011	\$20,208	\$6,396	\$10,834	\$37,437	\$47,511	\$40,769
2012	\$20,825	\$6,214	\$11,407	\$38,446	\$49,724	\$41,728
2013	\$22,852	\$6,433	\$10,644	\$39,929	\$49,025	\$41,377
2014	\$24,993	\$6,563	\$10,360	\$41,916	\$51,625	\$42,596
2015	\$22,115	\$6,990	\$10,903	\$40,007	\$51,380	\$44,235
2016	\$20,862	\$7,317	\$11,061	\$39,240	\$49,779	\$44,478
Change	\$1,788	\$2,099	-\$217	\$3,670	\$8,340	\$5,562
Percent of Total	48.7%	57.2%	-5.9%	100.0%	N.A.	N.A.
Percent Change	9.4%	40.2%	-1.9%	10.3%	20.1%	14.3%
Source: Bureau of Economic Analysis						

<b>Table 6. Educational Attainment Level (Population 25 years and over), 2012-2016</b>						
Degree	Johnson	Wyoming	U.S.	Johnson Percent	Wyoming Percent	U.S. Percent
No High School Degree	309	29,451	27,818,380	5.1%	7.6%	13.0%
High School Graduate	2,010	112,932	58,820,411	33.2%	29.2%	27.5%
Some College	1,578	102,613	44,772,845	26.1%	26.5%	21.0%
Associate Degree	614	41,392	17,469,724	10.1%	10.7%	8.2%
Bachelor's Degree	1,013	66,753	40,189,920	16.7%	17.2%	18.8%
Graduate or Professional	528	33,921	24,577,867	8.7%	8.8%	11.5%
<b>Total Population 25 Yrs or Older</b>	<b>6,052</b>	<b>387,062</b>	<b>213,649,147</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
High School Degree or Higher	5,743	357,611	185,830,767	94.9%	92.4%	87.0%
Bachelor's Degree or Higher	1,541	100,674	64,767,787	25.5%	26.0%	30.3%
Source: WY Department of A&I - Economic Analysis Division						
<b>Table 7. Employment, 2005-2016</b>						
Year	Johnson	Wyoming	U.S.			
2005	5,370	354,786	172,557,400			
2006	5,658	370,803	176,123,600			
2007	5,900	389,074	179,885,700			
2008	6,272	399,728	179,639,900			
2009	5,996	388,641	174,233,700			
2010	5,920	385,217	173,034,700			
2011	5,873	390,568	176,278,700			
2012	6,135	396,774	179,081,700			
2013	6,175	400,424	182,408,100			
2014	6,367	406,281	186,354,800			
2015	6,086	405,856	190,422,800			
2016	6,095	396,541	193,668,400			
Change	725	41,755	21,111,000			
Percent Change 2000-2015	13.5%	11.8%	12.2%			
Source: Bureau of Economic Analysis						

**Table 8. Johnson County Employment by Sector, 2016**

Sector	Jobs	Percent	LQ
Local Government	751	12.3%	1.68
Real Estate, Rental, & Leasing	601	9.9%	2.13
Accommodations & Food Service	571	9.4%	1.26
Retail Trade	542	8.9%	0.89
Agriculture	464	7.6%	5.58
Construction	397	6.5%	1.25
Mining	384	6.3%	8.61
Finance & Insurance	320	5.3%	1.03
Professional Services	298	4.9%	0.69
Other Services	282	4.6%	0.79
Health Care & Social Assistance	255	4.2%	0.37
Arts, Entertainment, & Recreation	167	2.7%	1.23
Transportation & Warehousing	161	2.6%	0.71
Management Services	146	2.4%	0.32
Federal - Civilian	130	2.1%	1.45
Forestry, Fishing, & Ag Support	121	2.0%	4.20
Manufacturing	120	2.0%	0.29
State Government	116	1.9%	0.70
Wholesale Trade	109	1.8%	0.50
Educational Services	56	0.9%	0.38
Information	48	0.8%	0.45
Military	44	0.7%	0.73
Utilities	12	0.2%	0.63
<b>Total</b>	<b>6,095</b>	<b>100.0%</b>	<b>N.A.</b>
Source: Bureau of Economic Analysis			

**Table 9. Johnson County Employment 2005, 2008, 2011, 2014, 2016**

Sector	2005	2008	2011	2014	2016	Change 2005-2016
Real Estate, Rental, & Leasing	329	458	473	555	601	272
Agriculture	364	396	432	448	464	100
Local Government	652	699	749	752	751	99
Finance & Insurance	226	245	314	316	320	94
Professional Services	207	262	222	291	298	91
Accommodations & Food Service	512	553	551	565	571	59
Mining	339	635	400	466	384	45
Arts, Entertainment, & Recreation*	125	163	142	173	167	42
Management Services	<i>108</i>	<i>169</i>	<i>187</i>	<i>139</i>	<i>146</i>	<i>38</i>
Other Services	248	258	252	274	282	34
Health Care & Social Assistance	222	<i>261</i>	<i>246</i>	<i>286</i>	255	33
Educational Services	<i>41</i>	<i>47</i>	<i>49</i>	<i>54</i>	56	15
Transportation & Warehousing	148	170	166	162	161	13
State Government	110	113	113	116	116	6
Military	43	50	50	46	44	1
Utilities	13	18	13	11	12	-1
Wholesale Trade	110	84	91	76	109	-1
Forestry, Fishing, & Ag Support	125	136	148	141	121	-4
Manufacturing	125	83	82	116	120	-5
Retail Trade	547	560	507	509	542	-5
Federal - Civilian	136	141	132	124	130	-6
Information	55	52	48	45	48	-7
Construction	585	719	506	702	397	-188
<b>Total</b>	<b>5,370</b>	<b>6,272</b>	<b>5,873</b>	<b>6,367</b>	<b>6,095</b>	<b>725</b>

Source: Bureau of Economic Analysis &amp; Woods &amp; Poole (Italics)

**Table 10. Average Earnings Per Job, 2005-2016**

	Deflated	Deflated	Deflated
Year	Johnson	Wyoming	U.S.
2005	\$29,601	\$41,439	\$38,916
2006	\$30,994	\$45,612	\$40,266
2007	\$30,466	\$46,054	\$41,009
2008	\$30,933	\$48,509	\$41,055
2009	\$29,475	\$43,549	\$39,376
2010	\$28,566	\$44,711	\$39,622
2011	\$31,335	\$47,511	\$40,769
2012	\$31,219	\$49,724	\$41,728
2013	\$34,451	\$49,025	\$41,377
2014	\$35,935	\$51,625	\$42,596
2015	\$32,848	\$51,380	\$44,235
2016	\$31,563	\$49,779	\$44,478
Percent Change	6.6%	20.1%	14.3%
Source: Bureau of Economic Analysis			

**Table 10a. Average Earnings Per Job by Sector for Johnson County, 2016**

Sector	Jobs	Earnings	
		(\$1,000)	AEPJ
Utilities	12	\$1,672	\$139,333
Federal - Civilian	130	\$11,761	\$90,469
State Government	116	\$8,478	\$73,086
Local Government	751	\$51,260	\$68,256
Transportation & Warehousing	161	\$10,166	\$63,143
Forestry, Fishing, & Ag Support	121	\$5,982	\$49,438
Construction	397	\$19,373	\$48,798
Mining	384	\$14,459	\$37,654
Wholesale Trade	109	\$3,788	\$34,752
Professional Services	298	\$9,480	\$31,812
Management Services	146	\$4,527	\$31,007
Military	44	\$1,348	\$30,636
Health Care & Social Assistance	255	\$7,610	\$29,843
Other Services	282	\$8,033	\$28,486
Information	48	\$1,287	\$26,813
Finance & Insurance	320	\$8,010	\$25,031
Accommodations & Food Service	571	\$13,082	\$22,911
Real Estate, Rental, & Leasing	601	\$12,299	\$20,464
Retail Trade	542	\$10,739	\$19,814
Manufacturing	120	\$1,719	\$14,325
Educational Services	56	\$664	\$11,857
Agriculture	464	\$5,412	\$11,664
Arts, Entertainment, & Recreation	167	\$1,853	\$11,096
<b>Total</b>	<b>6,095</b>	<b>213,002</b>	<b>\$34,947</b>
Source: Bureau of Economic Analysis			

**Table 11. Total Labor Earning for Johnson County, 2016**

Sector	Jobs	AEPJ	Earnings	
			(\$1,000)	Percent
Local Government	751	\$68,256	\$51,260	24.1%
Construction	397	\$48,798	\$19,373	9.1%
Mining	384	\$37,654	\$14,459	6.8%
Accommodations & Food Service	571	\$22,911	\$13,082	6.1%
Real Estate, Rental, & Leasing	601	\$20,464	\$12,299	5.8%
Federal - Civilian	130	\$90,469	\$11,761	5.5%
Retail Trade	542	\$19,814	\$10,739	5.0%
Transportation & Warehousing	161	\$63,143	\$10,166	4.8%
Professional Services	298	\$31,812	\$9,480	4.5%
State Government	116	\$73,086	\$8,478	4.0%
Other Services	282	\$28,486	\$8,033	3.8%
Finance & Insurance	320	\$25,031	\$8,010	3.8%
Health Care & Social Assistance	255	\$29,843	\$7,610	3.6%
Forestry, Fishing, & Ag Support	121	\$49,438	\$5,982	2.8%
Agriculture	464	\$11,664	\$5,412	2.5%
Management Services	146	\$31,007	\$4,527	2.1%
Wholesale Trade	109	\$34,752	\$3,788	1.8%
Arts, Entertainment, & Recreation	167	\$11,096	\$1,853	0.9%
Manufacturing	120	\$14,325	\$1,719	0.8%
Utilities	12	\$139,333	\$1,672	0.8%
Military	44	\$30,636	\$1,348	0.6%
Information	48	\$26,813	\$1,287	0.6%
Educational Services	56	\$11,857	\$664	0.3%
<b>Total</b>	<b>6,095</b>	<b>\$34,947</b>	<b>213,002</b>	<b>100.0%</b>

Source: Bureau of Economic Analysis



<b>Table 12. Land Ownership in Johnson County, 2012</b>			
Owner	Acres	Percent of Total	Percent of Type
National Park Service	0	0.0%	0.0%
Forest Service	328,256	12.3%	39.5%
BLM	502,464	18.9%	60.5%
Bureau of Reclamation	0	0.0%	0.0%
<b>Total Federal</b>	<b>830,720</b>	<b>31.2%</b>	<b>100.0%</b>
State Trust Lands	229,568	8.6%	94.9%
Recreation Commission	64	0.0%	0.0%
Fish & Game	12,224	0.5%	5.1%
<b>Total State</b>	<b>241,856</b>	<b>9.1%</b>	<b>100.0%</b>
County	N.A.	N.A.	N.A.
Cities	N.A.	N.A.	N.A.
School Dist. & Colleges	N.A.	N.A.	N.A.
<b>Total Local Government</b>	<b>4,224</b>	<b>0.2%</b>	<b>100.0%</b>
<b>Total Private</b>	<b>1,573,248</b>	<b>59.2%</b>	<b>100.0%</b>
<b>Other</b>	<b>8,640</b>	<b>0.3%</b>	<b>100.0%</b>
<b>Total Land Area</b>	<b>2,658,688</b>	<b>100.0%</b>	
Source: Wyoming County Profiles 2017			

<b>Table 13. Acres of Taxable Agricultural Land in Johnson County</b>		
Classification	Acres	Percent
Irrigate Land	58,174	3.8%
Dry Farm Land	2,785	0.2%
Range Lands	1,458,899	96.0%
<b>Total Land</b>	<b>1,519,858</b>	<b>100.0%</b>
Source: Wyoming Department of Revenue 2012 Annual Report		

<b>Table 14. Management Designations of Federal Land in Johnson County</b>		
Type	Acres	Percent
Protected	104,095	12.5%
Restricted	154,046	18.5%
General Use	574,876	69.0%
<b>Total Federal</b>	<b>833,017</b>	<b>100.0%</b>
Source: Economic Profile System - Human Dimensions Toolkit		

**Table 15. Johnson County Government Revenue and Costs, FY2013-FY2017**

Source	FY2013	FY2014	FY2015	FY2016	FY2017	FY2017
Taxes	\$15,239,403	\$12,209,535	\$12,139,213	\$15,429,452	\$9,261,772	39.5%
Other Local Government	\$394,716	\$485,563	\$510,065	\$471,059	\$5,754,341	24.5%
State Aid	\$3,098,008	\$4,012,286	\$5,045,302	\$5,267,538	\$3,909,932	16.7%
Direct Federal Aid	\$1,602,880	\$1,732,494	\$1,889,325	\$2,351,139	\$1,823,515	7.8%
Charges for Services	\$1,025,930	\$1,008,725	\$1,095,092	\$1,906,287	\$1,574,157	6.7%
Miscellaneous Revenue	\$540,110	\$718,131	\$933,363	\$987,167	\$1,134,176	4.8%
<b>Total Revenue</b>	<b>\$21,901,047</b>	<b>\$20,166,734</b>	<b>\$21,612,360</b>	<b>\$26,412,642</b>	<b>\$23,457,893</b>	<b>100.0%</b>
Population	8,637	8,584	8,616	8,496	8,476	
Revenue Per Capita	\$2,536	\$2,349	\$2,508	\$3,109	\$2,768	
Total Costs	\$23,193,025	\$14,870,309	\$17,609,585	\$22,782,676	\$18,515,577	
Cost Per Capita	\$2,685	\$1,732	\$2,044	\$2,682	\$2,184	
Source: Wyoming Department of Audit						

**Table 16. Johnson County Assessed Valuation, 2017**

Property Type	Amount	Percent
Minerals	\$181,724,690	44.8%
Industrial Property	\$96,311,527	23.8%
Residential Property	\$83,383,587	20.6%
Agricultural Lands	\$18,969,582	4.7%
Commercial Property	\$17,907,127	4.4%
Utilities	\$7,031,560	1.7%
<b>Total Valuation</b>	<b>\$405,328,073</b>	<b>100.0%</b>
Crude Oil	\$42,381,709	23.3%
Natural Gas	\$129,483,626	71.3%
Uranium	\$6,136,458	3.4%
Bentonite	\$3,075,991	1.7%
Sand & Gravel	\$646,906	0.4%
<b>Total Mineral Valuation</b>	<b>\$181,724,690</b>	<b>100.0%</b>
Source: Wyoming Department of Revenue		

<b>Table 17. Johnson County Sales &amp; Use Tax Revenue, FY2017</b>				
Industries	Sales Tax	Use Tax	Sales & Use	Percent
Retail Trade	\$3,046,747	\$219,164	\$3,265,911	26.7%
Mining	\$1,832,503	\$50,548	\$1,883,051	15.4%
Utilities	\$1,780,220	\$3,621	\$1,783,841	14.6%
Leisure & Hospitality	\$1,417,846	\$2,054	\$1,419,900	11.6%
Public Administration	\$856,017	\$435,668	\$1,291,685	10.6%
Wholesale Trade	\$438,139	\$153,373	\$591,512	4.8%
Financial Activities	\$467,523	\$7,651	\$475,174	3.9%
Other Services	\$432,187	\$1,137	\$433,324	3.5%
Construction	\$117,797	\$231,218	\$349,015	2.9%
Pro & Business Services	\$312,388	\$14,817	\$327,205	2.7%
Information	\$232,054	\$19,150	\$251,204	2.1%
Manufacturing	\$125,818	\$7,154	\$132,972	1.1%
Transport & Warehouse	\$4,612	\$104	\$4,716	0.0%
Education & Health	\$3,039	\$0	\$3,039	0.0%
Agr & Other	\$1,483	\$0	\$1,483	0.0%
<b>Total</b>	<b>\$11,068,373</b>	<b>\$1,145,659</b>	<b>\$12,214,032</b>	<b>100.0%</b>
Source: Wyoming Economic Analysis Division				
<b>Table 18. Johnson County Federal Land Payment, FY2015 (2017\$)</b>				
Source	Amount	Percent		
PILT	\$999,235	76.1%		
Forest Service Payments	\$188,703	14.4%		
BLM Payments	\$125,501	9.6%		
<b>Total</b>	<b>\$1,313,439</b>	<b>100.0%</b>		
Distributions	Amount	Percent		
County Government	\$1,109,428	84.5%		
Local School Districts	\$80,199	6.1%		
Grazing Districts	\$123,812	9.4%		
<b>Total</b>	<b>\$1,313,439</b>	<b>100.0%</b>		
Source: Economic Profile System - Human Dimension Toolkit				

	FY2014	FY2017	Change
County Costs	Amount	Amount	FY14-FY17
Construction	\$1,571,145	\$4,932,653	\$3,361,508
Road and Bridge	\$2,548,151	\$2,639,148	\$90,997
Other Expenses	\$21,399	\$1,984,434	\$1,963,035
Jail	\$1,213,172	\$1,229,814	\$16,642
County Sheriff	\$1,188,015	\$1,137,462	-\$50,553
Libraries	\$689,556	\$693,130	\$3,574
Capital	\$425,852	\$610,591	\$184,739
Parks/Recreation/Museum	\$721,138	\$586,818	-\$134,320
Courthouse	\$410,731	\$559,171	\$148,440
County Clerk	\$418,483	\$373,011	-\$45,472
Distict Court	\$418,107	\$365,069	-\$53,038
Social Services - Welfare	\$227,910	\$350,713	\$122,803
County Assessor	\$383,405	\$349,145	-\$34,260
County Attorney	\$386,863	\$339,176	-\$47,687
Fair	\$283,240	\$311,816	\$28,576
Finacial Administration	\$211,940	\$269,570	\$57,630
County Treasurer	\$231,173	\$263,570	\$32,397
Civil Defense/Emergency	\$144,796	\$211,876	\$67,080
Health (Not Hospital)	\$209,469	\$211,751	\$2,282
County Commissioners	\$192,994	\$204,319	\$11,325
Juvenile Probation	\$127,231	\$137,089	\$9,858
County Airport	\$42,000	\$129,183	\$87,183
County Administration	\$2,348,022	\$113,375	-\$2,234,647
County Planner	\$183,941	\$90,471	-\$93,470
Agricultural Department	\$107,745	\$87,001	-\$20,744
Social Services - Other	\$1,458	\$77,400	\$75,942
Circuit or Drug Court	\$1,373	\$74,635	\$73,262
County Coroner	\$72,569	\$73,694	\$1,125
Elections	\$28,507	\$71,195	\$42,688
Fire	\$21,301	\$21,241	-\$60
Protective Inspections	\$38,623	\$17,056	-\$21,567
<b>Total</b>	<b>\$14,870,309</b>	<b>\$18,515,577</b>	<b>\$3,645,268</b>
Source: Wyoming Department of Audit			

**Table 20. Johnson County Mining Industry**

<b>Mineral Production 2016</b>	
	Production
Oil (Barrels)	1,275,903
Gas (MCF)	110,846,684
Uranium (Lbs)	288,855
Bentonite (Tons)	382,183
Sand & Gravel (Tons)	263,120

Source: Wyoming Department of Revenue

**Tax Revenue 2017 (2016 Production)**

	Assessed Valuation	Percent	County Revenue (12.000 Mills)	K-12 Revenue (44.000 Mills)	Special Districts (12.751 Mills)	Total Revenue (68.751 Mills)
Crude Oil	\$42,381,709	23.3%	\$508,581	\$1,885,986	\$412,798	\$2,807,364
Natural Gas	\$129,483,626	71.3%	\$1,553,804	\$5,762,021	\$1,261,171	\$8,576,995
Uranium	\$6,136,458	3.4%	\$73,637	\$273,072	\$59,769	\$406,479
Bentonite	\$3,075,991	1.7%	\$36,912	\$136,882	\$29,960	\$203,754
Sand & Gravel	\$646,906	0.4%	\$7,763	\$28,787	\$6,301	\$42,851
<b>Total Minerals</b>	<b>\$181,724,690</b>	<b>100.0%</b>	<b>\$2,180,696</b>	<b>\$8,086,749</b>	<b>\$1,769,998</b>	<b>\$12,037,443</b>
Percent			18.1%	67.2%	14.7%	100.0%

Source: Wyoming Department of Revenue

**Employment 2016**

	Mining	Total	Percent Mining
Jobs	384	6,095	6.3%
Labor Income	\$14,459,000	\$213,002,000	6.8%
Average Earnings/Job	\$37,654	\$34,947	7.7%

Source: Bureau of Economic Analysis

<b>Table 21. Johnson County Agricultural Industry, 2012</b>				
<b>Physical Characteristics</b>				
Land Use	Acres	Percent	Number of Farms	Average Size (Acres)
Total Cropland	59,805	2.9%		
Total Woodland	20,961	1.0%		
Grazing Land	1,943,043	95.5%		
Farmstead	11,782	0.6%		
<b>Total Land</b>	<b>2,035,591</b>	<b>100.0%</b>	<b>358</b>	<b>5,686</b>
	Cattle & Calves	Sheep & Lambs	Total Head	
Inventory	62,742	27,894	90,636	
	Land & Buildings	Machinery & Equipment	Combined Investment	
Market Value	\$1,236,096,000	\$42,761,000	\$1,278,857,000	
Average Per Farm	\$3,452,782	\$119,444	\$3,572,226	
Property Tax Paid	\$1,527,000			
Source: 2012 Census of Agriculture				
<b>Gross Revenue 2016</b>				
Cash Receipts - Livestock	\$36,015,000	74.4%		
Cash Receipts - Crops	\$3,487,000	7.2%		
Government Payments	\$1,880,000	3.9%		
Miscellaneous Income	\$7,041,000	14.5%		
<b>Total Gross Revenue</b>	<b>\$48,423,000</b>	<b>100.0%</b>		
Source: Bureau of Economic Analysis				
<b>Employment 2016</b>				
	Agriculture	County Total	Percent Agriculture	
Jobs	464	6,095	7.6%	
Labor Income	\$5,412,000	\$213,002,000	2.5%	
Average Earnings/Job	\$11,664	\$34,947	33.4%	
Source: Bureau of Economic Analysis				

**Table 22. Johnson County Travel Industry, 2017**

<b>Visitor Spending</b>					
	Amount				
Accommodation	(Million\$)	Percent			
Hotel, Motel	\$22.0	46.1%			
Campground	\$19.6	41.1%			
Private Home	\$3.1	6.5%			
Vacation Home	\$1.7	3.6%			
Day Travel	\$1.3	2.7%			
<b>Total</b>	<b>\$47.7</b>	<b>100.0%</b>			
	Amount				
Purchases	(Million\$)	Percent			
Accommodations	\$11.1	23.3%			
Food Service	\$11.9	25.0%			
Food Stores	\$4.2	8.8%			
Local Tran. & Gas	\$6.1	12.8%			
Art, Ent. & Rec	\$7.9	16.6%			
Retail Sales	\$6.4	13.4%			
<b>Total</b>	<b>\$47.6</b>	<b>100.0%</b>			
<b>Employment</b>					
Sector	Jobs	Percent	Earnings (Million\$)	Percent	Ave. Earn Per Job
Accom & Food Service	370	59.7%	\$7.3	50.7%	\$19,730
Arts, Ent. & Rec.	130	21.0%	\$5.0	34.7%	\$38,462
Retail	110	17.7%	\$0.9	6.3%	\$8,182
Ground Tran	0	0.0%	\$0.1	0.7%	N.A.
Other Travel	10	1.6%	\$1.1	7.6%	\$110,000
<b>Total</b>	<b>620</b>	<b>100.0%</b>	<b>\$14.4</b>	<b>100.0%</b>	<b>\$23,226</b>
<b>Tax Revenue</b>					
	Amount				
	(Million\$)	Percent			
Local Tax Revenue	\$0.9	34.6%			
State Tax Revenue	\$1.7	65.4%			
<b>Total Revenue</b>	<b>\$2.6</b>	<b>100.0%</b>			
Source: Dean Runyan Associates					

**Attachment #15**  
**Converse County Coal Railroad Employment and Wages**



**Converse County Wyoming workers and wages in  
"Mining and Mining Related Employment" Source  
US Census**

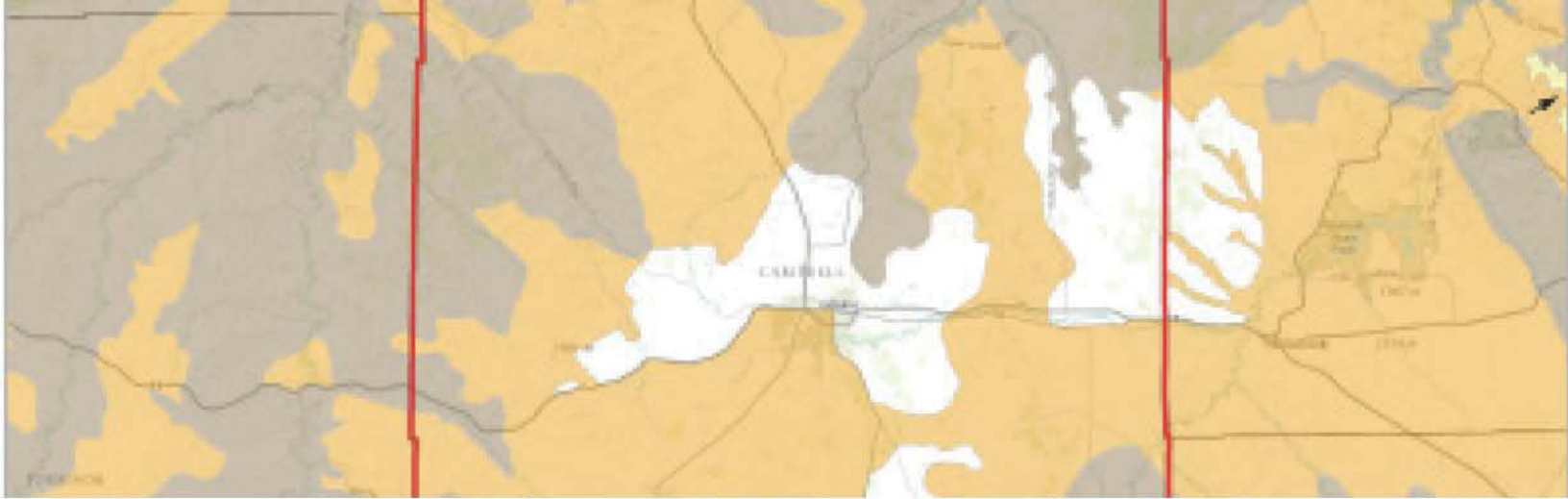
	Year	# Employess	Avg weekly wage
	2013	1,330	\$1,329
	2014	1,371	\$1,421
	2015	1,220	\$1,537
	2016	1,025	\$1,628
	2017	1,101	\$1,664
	2018	1,298	\$1,624
	2019	1,484	\$1,752
	2020	954	\$1,580
	2021	1,233	\$1,636
	2022	1,256	\$1,718
	2023	1,115	\$1,734
	<b>AVG</b>	<b>1,217</b>	<b>\$1,602</b>

**Attachment #16**  
**Converse County Historical Railroad Valuation since 1999**

**Converse County Wyoming- Coal and Railroad valuation since 1999 - Source Converse County Assessor**

Year	Coal Valuation	Rail Road Valuation	ANNUAL PROPE	Attachment #16	Coal % of total valuation	RR % of total valuation	Coal and RR Together
			Converse County Historical Railroad Valuation since 1999	Total County Value			
			mills				
1999	\$57,547,379	\$22,104,405	\$955,821.41	\$272,678,786	21.1%	8.1%	29.2%
2000	\$67,173,646	\$23,543,714	\$1,088,608.32	\$324,592,425	20.7%	7.3%	27.9%
2001	\$72,567,854	\$24,708,137	\$1,167,311.89	\$359,568,277	20.2%	6.9%	27.1%
2002	\$83,284,924	\$27,076,736	\$1,324,339.92	\$359,896,305	23.1%	7.5%	30.7%
2003	\$108,151,284	\$28,579,361	\$1,640,767.74	\$348,338,443	31.0%	8.2%	39.3%
2004	\$119,392,227	\$30,805,157	\$1,802,368.61	\$417,287,747	28.6%	7.4%	36.0%
2005	\$103,750,043	\$26,562,859	\$1,563,754.82	\$432,232,521	24.0%	6.1%	30.1%
2006	\$84,208,985	\$28,732,143	\$1,355,293.54	\$457,386,031	18.4%	6.3%	24.7%
2007	\$135,444,876	\$31,990,439	\$2,009,223.78	\$505,773,517	26.8%	6.3%	33.1%
2008	\$182,288,435	\$39,272,112	\$2,658,726.56	\$583,725,972	31.2%	6.7%	38.0%
2009	\$195,947,032	\$37,303,153	\$2,799,002.22	\$694,931,035	28.2%	5.4%	33.6%
2010	\$229,733,212	\$4,084,904	\$2,805,817.39	\$693,427,374	33.1%	0.6%	33.7%
2011	\$264,224,714	\$46,350,511	\$3,726,902.70	\$851,310,494	31.0%	5.4%	36.5%
2012	\$242,090,307	\$60,117,170	\$3,626,489.72	\$1,003,112,636	24.1%	6.0%	30.1%
2013	\$295,433,065	\$58,089,645	\$4,242,272.52	\$1,168,956,285	25.3%	5.0%	30.2%
2014	\$227,860,016	\$58,358,266	\$3,434,619.38	\$1,407,977,674	16.2%	4.1%	20.3%
2015	\$249,943,735	\$61,659,353	\$3,739,237.06	\$1,833,614,182	13.6%	3.4%	17.0%
2016	\$231,733,939	\$66,473,368	\$3,578,487.68	\$1,521,897,271	15.2%	4.4%	19.6%
2017	\$158,189,068	\$63,622,221	\$2,661,735.47	\$1,110,252,314	14.2%	5.7%	20.0%
2018	\$115,908,856	\$60,536,062	\$2,117,339.02	\$1,361,264,100	8.5%	4.4%	13.0%
2019	\$49,822,198	\$63,647,232	\$1,361,633.16	\$2,123,165,031	2.3%	3.0%	5.3%
2020	\$3,218,360	\$74,157,200	\$928,506.72	\$2,358,035,588	0.1%	3.1%	3.3%
2021	\$8,745,143	\$75,009,645	\$1,005,057.46	\$1,743,640,315	0.5%	4.3%	4.8%
2022	\$0	\$77,771,045	\$933,252.54	\$2,760,655,157	0.0%	2.8%	2.8%
2023	\$0	\$90,982,696	\$1,091,792.35	\$4,384,390,866	0.0%	2.1%	2.1%
2024	\$0	\$74,897,774	\$898,773.29	\$3,560,315,431	0.0%	2.1%	2.1%
		<b>AVG</b>	<b>\$2,096,812.90</b>		17.6%		22.7%
		<b>TOTAL</b>	<b>\$54,517,135.27</b>				

**Attachment #17**  
**Campbell County Natural Resource Management Plan dated September of 2022**



# Campbell County Natural Resource Land Use Plan

*Approved by: Campbell County Board of Commissioners  
Date: September 20, 2022*



# Table of Contents

<b>Table of Contents .....</b>	<b>1</b>
<b>Preface.....</b>	<b>1</b>
<b>Document Reference.....</b>	<b>1</b>
<b>Introduction.....</b>	<b>2</b>
Purpose .....	2
Principles .....	2
Organization .....	3
Overarching Planning Regulations.....	3
Federal Management and Regulations .....	3
Cooperating Agency Status .....	5
State and Local Regulations .....	5
Governor’s Consistency Review Process .....	5
Cooperative Conservation .....	5
Information Quality .....	6
Waivers.....	7
Policy.....	7
Goals.....	7
Objectives.....	8
Severability.....	8
Definitions.....	8
<b>Chapter 1 – General Land Use Planning.....</b>	<b>11</b>
1.1 County Overview .....	11
1.2 Custom and Culture.....	12
<b>Chapter 2 – Lands and Realty .....</b>	<b>15</b>
2.1 Policy.....	15
2.2 Goals.....	15
2.3 Objectives.....	15
2.4 Land Ownership .....	16
<b>Chapter 3 – Natural, Biological, and Cultural Resources.....</b>	<b>20</b>
3.1 Air Quality.....	20
3.1.1 Policy .....	20
3.1.2 Goals .....	20
3.1.3 Objectives .....	20
3.1.4 Campbell County Setting.....	21
3.1.5 Air Quality Standards .....	26
3.1.6 Future Emissions.....	30
3.1.7 Air Quality Data Summary .....	34
3.1.8 Emission Control Strategies.....	34
3.1.9 Campbell County Position Summary.....	37
3.2 Soils.....	38
3.2.1 Policy .....	39
3.2.2 Goals .....	39
3.2.3 Objectives .....	39

3.3	Vegetation .....	39
3.3.1	Policy .....	42
3.3.2	Goals .....	42
3.3.3	Objectives .....	42
3.4	Visual .....	44
3.4.1	Policy .....	45
3.4.2	Goals .....	45
3.4.3	Objectives .....	45
3.5	Water .....	46
3.5.1	Policy .....	52
3.5.2	Goals .....	52
3.5.3	Objectives .....	52
3.6	Weeds, Pests, and Invasive Species .....	57
3.6.1	Policy .....	59
3.6.2	Goals .....	59
3.6.3	Objectives .....	60
3.7	Threatened, Endangered, Candidate, Proposed and Special Status Species .....	61
3.7.1	Policy .....	62
3.7.2	Goals .....	62
3.7.3	Objectives .....	62
3.8	Predators .....	63
3.8.1	Policy .....	65
3.8.2	Goals .....	65
3.8.3	Objectives .....	65
3.9	Wildlife.....	67
3.9.1	Policy .....	73
3.9.2	Goals .....	73
3.9.3	Objectives .....	73
3.9.4	Fishing and Hunting.....	81
3.9.5	Fish.....	81
3.9.6	Big Game .....	84
3.9.7	Game Birds and Small Game.....	91
3.9.8	Diseases.....	91
3.9.9	Campbell County Position Summary.....	93
3.10	Cultural/Historic/Paleontology Resources .....	93
3.10.1	Policy .....	96
3.10.2	Goals .....	96
3.10.3	Objectives .....	96
<b>Chapter 4 – Economics and Resource Uses.....</b>		<b>98</b>
4.1	Economics .....	98
4.1.1	Population Trends .....	98
4.1.2	Housing Availability and Price.....	100
4.1.3	Employment and Income Data.....	101
4.1.4	Cost of Living .....	106
4.1.5	Fiscal Conditions .....	106
4.1.6	County Facilities and Services.....	106

4.1.7	Policy .....	107
4.1.8	Goals .....	108
4.1.9	Objectives .....	108
4.1.10	Socioeconomic Considerations for Future Actions .....	112
4.2	Timber .....	116
4.2.1	Policy .....	117
4.2.2	Goals .....	118
4.2.3	Objectives .....	118
4.3	Livestock and Grazing .....	120
4.3.1	Policy .....	121
4.3.2	Goals .....	121
4.3.3	Objectives .....	121
4.4	Mineral Resources.....	124
4.4.1	Coal .....	124
4.4.2	Oil and Gas .....	126
4.4.3	Uranium .....	130
4.4.4	Policy .....	132
4.4.5	Goals .....	132
4.4.6	Objectives .....	132
4.4.7	Campbell County Position Summary.....	134
4.5	Energy .....	135
4.5.1	Policy .....	136
4.5.2	Goals .....	136
4.5.3	Objectives .....	137
4.6	Outdoor Recreation .....	138
4.6.1	U.S. Forest Service- Thunder Basin National Grassland.....	139
4.6.2	Bureau of Land Management Property.....	140
4.6.3	Bankhead-Jones Land .....	143
4.6.4	Wyoming Office of State Lands and Investments Managed Properties .....	143
4.6.5	Wyoming Department of State Parks and Cultural Resources .....	143
4.6.6	Wyoming Game and Fish Department Managed Recreation .....	143
4.6.7	Policy .....	150
4.6.8	Goals .....	150
4.6.9	Objectives .....	150
4.7	Transportation, Rights-of-Ways, and Easements.....	151
4.7.1	Roadway Functional Classifications.....	153
4.7.2	Major Roadways and Primary Uses.....	153
4.7.3	Primary Issues of Existing Transportation Network.....	154
4.7.4	Policy .....	154
4.7.5	Goals .....	154
4.7.6	Objectives .....	155



Literature Cited .....	157
Introduction References .....	157
Chapter 2 References .....	159
Chapter 3 References .....	159
Chapter 4 References .....	173
Appendix A References .....	179
Appendix B References.....	182
Acronyms.....	195
Scientific Names, and Summary Tables of Sensitive Species, and of Noxious Weeds and Invasive Species.....	198

## List of Tables

Table 2-1. Surface and subsurface land ownership in acres within Campbell County, Wyoming.....	16
Table 3-1. 1998-2008 monthly average precipitation at Gillette-Campbell County Airport. ....	24
Table 3-2. 1998-2008 monthly average temperatures at Gillette-Campbell County Airport. ....	25
Table 3-3. 2011 anthropogenic emission in Campbell County, Wyoming by sector [tons/year].....	31
Table 3-4. 2011 emissions from EGUs and coal mines in Campbell County, Wyoming [tons/year].....	33
Table 3-5. Emission controls and generating capacity of EGUs in Campbell County, Wyoming.....	34
Table 3-6. WDEQ specific oil and gas regulations by source category for Campbell County, Wyoming.....	36
Table 3-7. Composition of habitat types within Campbell County, Wyoming. ....	40
Table 3-8. Percent ownership of habitat types within Campbell County, Wyoming.* .....	40
Table 3-9. Watersheds within Campbell County, Wyoming.....	46
Table 3-10. Length of rivers, streams, and creeks within Campbell County, Wyoming.....	46
Table 3-11. Surface water quality classifications on waters within Campbell County, WY.....	51
Table 3-12. Wetland types found within Campbell County, Wyoming. ....	71
Table 3-13. Range distribution areas in acres for big game species in Campbell County, Wyoming.....	84
Table 3-14. Acres per hunt area and herd for big game species within Campbell County, Wyoming.....	85
Table 4-1. Number of housing units in Campbell County, 1980-2019. ....	101
Table 4-2. Campbell County employment by industry, 1970-2020. ....	102
Table 4-3. Campbell County employment by industry, 2010-2020. ....	102
Table 4-4. Historical wages and income levels for Campbell County and Wyoming, 1970- 2020.....	105
Table 4-5. Summary of grazing allotments Buffalo Bureau of Land Management field office. ....	120
Table 4-6. Coal production in Campbell County and Wyoming, 2010-2020.....	126
Table 4-7. Oil and gas production in Campbell County, 2010-2020.....	130

## List of Figures

Figure 2- 1. Land ownership in Campbell County. ....	17
Figure 2-2. Public lands in Campbell County that are managed by the U.S. Bureau of Land Management (BLM) and the U.S. Forest Service (USFS). The Thunder Basin National Grassland is administered by the USFS, though lands within the administrative boundary shown on this map are not all managed by USFS; they are a checker board of private, state, and USFS lands. ....	18
Figure 3-1. Elevation map of Campbell County. ....	22
Figure 3-2. Annual wind direction frequency at Gillette-Campbell County Airport (1998 – 2012). ....	23
Figure 3-3. Daily wind direction frequency at Gillette-Campbell County Airport (1998 – 2012). ....	23
Figure 3-4. 1981-2010 annual average precipitation. ....	24
Figure 3-5. 1981 – 2010 monthly average low and high temperatures in January and July. ....	25
Figure 3-6. Air quality monitors in Campbell County. ....	29
Figure 3-7. Air quality monitors in Campbell County and nearby counties. ....	30
Figure 3-8. Campbell County criteria pollutant emissions by sector. ....	31
Figure 3-9. Campbell County point source criteria pollutant emissions by industry. ....	32
Figure 3-10. PM <sub>10</sub> (diameter less than or equal to 10 microns/inhalable particulate matter) emissions by source category. ....	33
Figure 3-11. Habitat types in Campbell County, Wyoming. ....	41
Figure 3-12. Campbell County water basins. ....	47
Figure 3-13. Campbell County watersheds. ....	48
Figure 3-14. Campbell County rivers and streams. ....	49
Figure 3-15. Priority areas for terrestrial Species of Greatest Conservation Need. ....	70
Figure 3-16. Wetlands and riparian habitats in Campbell County. ....	72
Figure 3-17. Aquatic conservation areas in Campbell County. ....	83
Figure 3-18. Range distribution of pronghorn in Campbell County. ....	87
Figure 3-19. Range distribution of mule deer in Campbell County. ....	88
Figure 3-20. Range distribution of white-tailed deer in Campbell County. ....	89
Figure 3-21. Range distribution of elk in Campbell County. ....	90
Figure 4-1. Historical population in Campbell County, 1960 – 2020. ....	99
Figure 4-2. Age distribution of Campbell County residents, 2019. ....	100
Figure 4-3. Campbell County’s employment by industry, 2019. ....	103
Figure 4- 4. Historical unemployment rates in Campbell County and Wyoming, 2004 – 2020	104
Figure 4- 5. Distribution of Campbell County households by income level, 2019. ....	105
Figure 4-6. Coal mine locations in Campbell County. ....	125
Figure 4-7. Completed oil and gas wells in Campbell County. ....	128
Figure 4-8. Completed coalbed wells in Campbell County. ....	129
Figure 4-9. Uranium deposits in Campbell County. ....	131
Figure 4-10. Major transmission lines in Campbell County. ....	138
Figure 4-11. Bureau of Land Management recreation areas in Campbell County. ....	141
Figure 4-12. Pronghorn hunt areas in Campbell County. ....	146
Figure 4-13. Elk hunt areas in Campbell County. ....	147
Figure 4-14. Mule deer hunt areas in Campbell County. ....	148
Figure 4-15. Transportation network in Campbell County. ....	152

## List of Appendices

Appendix A. Resource Specific Data

Appendix B. Regulatory Framework

## Preface

In 2007, the Campbell County Natural Resource Land Use Plan was formally adopted. At that time, the Campbell County Commissioners created, by resolution, the Natural Resource Land Use Plan Committee, whose task was to timely review and update the Plan. This revised Campbell County Natural Resource Land Use Plan supersedes all previous versions of the document.

The members of the Natural Resource Land Use Plan Committee and other subject experts that coordinated the revision of the Campbell County Natural Resource Land Use Plan include:

### 2022

Colleen Faber	Katie Wilson
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Melody Hamm	Hazer Bulkley
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Philip Murphree – Water  
Calvin Taylor – Wildlife  
Megan Degenfedler – Mining  
Debra Hepp – Conservation District  
Gerey Dillinger – Oil & Gas  
Madison Brown – Citizen At Large

### 2007

Jeremey McJilton – Environmental  
Robert Grant – Oil & Gas  
Acacia Elkins – Wildlife  
Bob Maul - Campbell County Conservation  
District  
Timothy Morrison – Conservation District  
Rick Law – Mining  
Nicholas DeLaat – Citizen At Large

## Document Reference

Campbell County. 2022. Amended Campbell County Natural Resource Land Use Plan. Developed by the Campbell County Commissioners. September 2022.

# Campbell County Natural Resource Land Use Plan

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## Introduction

### Purpose

The Campbell County Natural Resource Land Use Plan (NRLUP) is a document prepared and adopted by the local county government and used for local decision-making, management, and implementation in Campbell County. State and federal governments and their agencies are required to consider this plan and its recommendations when making decisions that impact Campbell County's lands and economy. The local intent of this plan is to facilitate and inform this coordination.

### Principles

It is the county's responsibility to ensure state and federal agencies manage lands and resources in Campbell County in a way that protects and improves the health, safety, environment, and well-being of our citizens, and improves the performance of the economy without imposing unacceptable or unreasonable costs or impacts to local social structure (Wyoming Statute [W.S.] 18-5-208(a)). Federal land use plans are to be consistent with local land use plans, ordinances, and policy, to the extent practical. This land use plan represents Campbell County's recommendations for land management and use of federal lands within the county. The plan also outlines management considerations for state trust lands in Campbell County, which are meant to assist the State of Wyoming Board of Land Commissioners and Office of State Lands and Investments in achieving the constitutional, statutory, and regulatory objectives specified for the lands they manage in a manner that considers and incorporates local and private landowner input to the extent allowed by law.

Campbell County recognizes that the private sector is the best engine for economic growth; regulatory policies should respect the role of state and local governments; and state and federal land policies and regulations should be effective, consistent, sensible, and understandable. In adopting this land use plan, the Board of Campbell County Commissioners intends to:

- Protect the integrity of environmental systems and natural resources.
- Preserve and promote resource-based industries.
- Promote a robust, diverse and stable economy.
- Minimize conflicts between land uses.
- Protect public health, safety and welfare.
- Preserve culture, customs, heritage, and economic diversity.

- Recognize and protect private rights and interests in state and federal land resources, including rights-of-way, public access, grazing leases and permits, water rights, special use leases and permits, mineral leases, contracts, and recreational use permits and licenses.

## Organization

This plan consists of four Chapters:

- Chapter 1 discusses general land use planning by state and federal agencies within Campbell County,
- Chapter 2 overviews the lands and realty within the county,
- Chapter 3 provides information relative to the natural, biological, and cultural resources within the county, and
- Chapter 4 discusses the current economic and resource uses within Campbell County.

Each chapter follows a similar format, including a general discussion of the resource or industry within the county, the Policy for that resource or industry, and a list of Goals and the Objectives detailing how the County wishes to achieve those Goals. Based on the information provided for a specific resource, a summary of Campbell County’s adopted natural resource land use planning Policies, Goals and Objectives, is set forth at the end of the section for most of the resources. Appendix A contains data related to resources that Campbell County will update as conditions change and situations warrant. Appendix B presents the regulatory framework for each resource or industry discussed in Chapters 3 and 4. Campbell County is aware that unique issues regarding use and development of state and federal lands and associated mineral resources will occur from time to time. In these events, Campbell County will prepare supplemental information to support or further clarify their position and incorporate the supplemental into the NRLUP as an appendix document, assuming the unique issue does not change any of the stated Policies, Goals or Objectives. Campbell County believes this approach is an efficient and effective way to keep this document relevant and useful for coordination with state and federal agencies.

## Overarching Planning Regulations

### Federal Management and Regulations

The United States (U.S.) Department of the Interior (USDI) Bureau of Land Management (BLM) and the US Department of Agriculture (USDA) Forest Service (USFS) manage approximately 17.2 percent of surface acres and 82.8 percent of subsurface mineral acres within Campbell County (see Table 2-1). A system of laws and regulations relative to each agency govern the management of these lands. Three important acts operate as overarching regulations for federal lands that ensure public and local government involvement in the decision-making process related to actions carried out on federal lands and that federal agencies continue to manage the land for multiple uses. Provided below is a brief description of these three acts:

- National Environmental Policy Act (NEPA) of 1969. NEPA establishes a national policy and goals for the protection, maintenance, and enhancement of the environment. NEPA defines the procedural requirements for all federal government agencies to consider the environmental impacts of their actions and decisions. Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. The federal agency is to make available to the public all the environmental information utilized during the decision-making process before a decision is made and actions are taken. NEPA established a Council on Environmental Quality (42 US Code [USC] 4321 [1970]), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations [CFR] 1500-1508 [1970]). In these regulations is the requirement that federal agencies to consider and use local planning documents during their decision making and planning efforts (40 CFR 1506.2 [1978] and 43 CFR 1610.3-2(a) [1983]).
- Federal Land Policy and Management Act (FLPMA) of 1976. This statute was designed to establish land policy for the management, protection, development and enhancement of public lands. The act requires federal agencies to manage public land for multiple uses and sustained yield of associated resource values. The act puts forth the intention of the federal government to retain public lands unless it is in the national interest to relinquish them (43 USC 1712 [1976]). FLPMA provides a framework for managing public lands that requires a systematic, interdisciplinary approach that incorporates the consideration of the physical, biological, economic, and other sciences, giving priority to areas of critical environmental concerns while considering present and potential uses of public lands. FLPMA requires coordination in land-use planning with other state and federal agencies involved in land-use planning. Under FLPMA (43 USC 1712 [1976]), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands.
- National Forest Management Act of 1976. This act obliged the USFS to use a systematic and interdisciplinary approach to resources management, much like the FLPMA. The act requires the USFS to assess forest lands, develop a management program based on multiple-use, sustained-yield principals, and implement a resource management plan for each national forest unit. The USFS is to conduct “suitability determinations” to identify the best use of the land. Resulting analyses require alternatives management options that assess the potential resource outputs (e.g., timber, range, mining, recreation, wildlife, water) and the socioeconomic effects on local communities.

The BLM has released a guide to assist BLM managers in understanding the commitments, roles, and responsibilities of the BLM and cooperating agencies. This guide can be accessed at: [A Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental Partners](#) (BLM 2012).



In compliance with the identified acts, both the BLM and the USFS have prepared two management documents that address significant portions of Campbell County. Provided below are the management documents.

- BLM Record of Decision and Approved Resource Management Plan (RMP) – Buffalo Field Office (BFO; BLM 2019, 2021).
- USFS Thunder Basin National Grassland (TBNG) Land and RMP (USFS 2001), as amended through the TBNG Land and RMP Amendment (USFS 2020).

### **Cooperating Agency Status**

While this NRLUP discusses the BLM and USFS in many places, Campbell County intends that this NRLUP also provide guidance and policy to any federal agency that is carrying out a NEPA review (whether an Environmental Impact Statement analysis, Environmental Assessment, or other NEPA review). Moreover, Campbell County claims cooperating agency status in any such NEPA review by any federal agency.

### **State and Local Regulations**

The Wyoming State Land Use Planning Act (W.S. 9-8-301 through 9-8-302), mandates the preparation and adoption of local land use plans. A land use plan is defined as “any written statement of land use policies, goals and objectives adopted by local governments. Such plans shall relate to an explanation of the methods for implementation; however, these plans shall not require any provisions for zoning. Any local land use plan may contain maps, graphs, charts, illustrations or any other form of written or visual communication” (W.S. 9-8-301 (d)(i)). Pursuant to this authority, Campbell County prepared the Campbell County, Wyoming: 2013 Comprehensive Plan that addresses future physical development for the next 20 years (Campbell County Department of Planning and Zoning [CCDPZ] 2013).

### **Governor’s Consistency Review Process**

The NRLUP requires the BLM provide for a governor’s consistency review as part of their land use planning process (43 C.F.R. § 1610.3-2(e)). State governors are entitled to an additional and entirely separate review of BLM land use plans, revisions, and amendments; this provides an opportunity to identify any inconsistencies with state or local plans. If a governor’s comments result in changes to the plan, the public notification of these changes is required. The governor may also refer to policies in the NRLUP in their review of the proposed federal action. Campbell County expects to be included during the review by the Governor’s Consistency Team whenever an agency action or decision may affect Campbell County or its citizens.

### **Cooperative Conservation**

Campbell County supports state and federal land management that is based on cooperative conservation, meaning actions that relate to use, enhancement, and enjoyment of natural resources, and protection of the environment, or both, and involves collaboration with federal, state, local, and tribal governments, private for-profit and non-profit institutions, other nongovernmental entities, and individuals.



State and federal land management are strongly encouraged to facilitate cooperative conservation by fully involving local governmental entities, including the Board of Campbell County Commissioners and Campbell County Conservation District (CCCD); take appropriate account of and respect the interests of persons with ownership or other legally recognized interests in land and other natural resources; properly accommodate local participation in federal decision-making; and provide that any programs, projects, and activities are consistent with protecting public health, safety, and welfare. Campbell County will not support projects where a federal or state agency has excluded local government entities and, where appropriate, landowners, permittees, and lessees from participating in the evaluation and development of such projects. For purposes of land use planning efforts and management decisions on state and federal lands in Campbell County, state and federal agencies should assume that Campbell County desires cooperating agency status in all cases and to otherwise be given full and fair opportunity to participate in federal and state decision-making processes to the fullest extent required and allowed by law.

### Information Quality

State and federal agencies must assure the accuracy and relevance of the information they use in the decision-making process. Current and accurate data should be utilized in project and planning analyses with “current” being defined by resource standards and regulations (i.e., wetland delineation data is only valid for five years with the U.S. Army Corps of Engineers [USACE]). Further, federal agencies must strictly adhere to the rigors of Section 515 of the Consolidated Appropriations Act of 2001 (Public Law [P.L.] 106–554 [2000]), commonly referred to as the Data Quality Act, and the Office of Management and Budget guidelines adopted pursuant to that act.

Campbell County is aware that planning and management decisions, at times, must occur before scientific research can provide a conclusive understanding of proposed projects’ impacts and benefits to natural resources. In these cases, Campbell County recommends that state and federal land managers consider adaptive or condition-based management programs or aspects to aide in the decision-making and management process. Campbell County supports the iterative process involving learning and decision-making associated with condition-based management. Campbell County recognizes there is a standard framework for adaptive management that includes the articulation of objectives, management options, a prediction of management consequences, and a monitoring program (Williams 2010). However, Campbell County is aware of the complexity and potentially extensive nature of fully addressing each of the steps in the framework and realizes variations of the process may be more appropriate in certain situations.

Irrespective of the framework in which they will evaluate and engage management decision, federal land managers must ensure that their decisions are supported by the best available, unbiased, and credible scientific data. To achieve these ends, federal agencies should endeavor to fully demonstrate the scientific rigor of their planning efforts by:

- Documenting how the best available data evaluated by rigorous scientific methodology and principles was considered in the planning process within the context of the issues being analyzed;

- Evaluating and disclosing uncertainties in that science;
- Evaluating and disclosing risks associated with plan components based on that science;
- Documenting that the science was appropriately interpreted and applied;
- Basing decisions on up to date, relevant scientific research; and
- Stating if data is lacking, unavailable, or outdated due the rapid changes occurring in various industries, such as energy development, and indicating if and how the federal agency proposed to acquire the necessary data.

State land management agencies should also be guided by sound science in their decision-making. Further, state cooperating agencies should ensure that their comments and other participation in federal land management decisions are supported by the best available, unbiased and credible scientific data.

### Waivers

Waivers, modifications, and exceptions of existing standards or guidelines should be granted when it results in less impact, it substantially reduces the cost of the project, conditions have changed, or the restriction is unnecessary to achieve the stated objective(s).

### Policy

The management of state and federal lands for multiple use based in sound science and current, accurate data, where the land's various resource values are managed to best meet the present and future needs of the citizens of Campbell County.

### Goals

- Efficient use of land and resources to meet the needs of local citizens and industries.
- A combination of balanced and diverse resource uses that takes into account the needs of future generations for renewable and non-renewable resources, including, but not limited to: recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values.
- Harmonious and coordinated use and management of natural resources without permanent impairment of the productivity of the land and the quality of the environment, with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.
- The prioritizing of any one use should only occur after the impacts of potentially managing for that single use to other multiple uses are fully quantified and lessened. The public will be fully informed of any land use management proposal and/or decision which affects traditional multiple use status of federal lands in the county.

## Objectives

- *Support cooperation, consultation, and coordination between the State of Wyoming and federal agencies to achieve the goals and objectives outlined in the NRLUP and other laws, ordinances and policies applicable in Campbell County.*
- *Support conservation practices recommended by the CCCD that improve natural resources and economic returns.*
- *Review NEPA documents to ensure consistency and compatibility with county attributes and objectives.*
- *Support the responsible recreational use of state trust and federal lands. Where such lands are damaged, encourage state and federal land managers to work with the county and other local partners for responsible use of state and federal lands and mitigate/remediate damaged land.*
- *Protect, preserve and respect private property rights. Assure state agency compliance with the provisions of W.S. 9-5-303, W.S. 9-5-304, and W.S. 16-3-103(a)(i)(H).*
- *State and federal agency coordination with local government to:*
  - *Establish effective government-to-government relationships with Campbell County;*
  - *Identify a county relations liaison to serve as the first point of contact with the Campbell County Board of Commissioners;*
  - *Work to reduce or remove legal or administrative program impediments that inhibit the agency's and the county's capacity to work directly and effectively with each other;*
  - *Promptly notify Campbell County at the earliest opportunity of proposed policy, plans, projects or actions that may affect the public's rights or interests in order to provide Campbell County an opportunity for meaningful dialogue concerning potential implications and effects; and*
  - *Involve the county early in planning process in the preparation of in-depth socioeconomic information.*

## Severability

Should a court declare any part of this plan void, unenforceable, or invalid, the remaining provisions shall remain in full force and effect.

## Definitions

**Credible Scientific Data.** Industry-accepted, peer-reviewed, scientifically valid chemical, physical and/or biological monitoring data. Data is collected using accepted referenced laboratory and field methods employed by a person who has received specialized training and has field experience in developing a monitoring plan, a quality assurance plan, and employing the methods outlined in such plans, or works under the supervision of a person who has these qualifications. Special training includes a thorough knowledge of written sampling protocols and

field methods such that the data collection and interpretation are reproducible, scientifically defensible, and free from preconceived bias.

**Cost Effective.** A smaller amount of resources which can accomplish an objective, relative to other alternatives that could accomplish that same objective.

**Land Resources.** Land is an essential natural resource, both for the survival and prosperity of humanity, and for the sustainability of a healthy environment. Land resources are characterized in terms of soils and surface topography, but also by features such as underlying mineral deposits, climate and water resources, and the plant and animal communities that have developed as a result of these physical conditions.

**Mineral Resources.** All extractable geological natural resources that can be utilized for economic return, including, but not limited to, leasable minerals, including oil, gas and coalbed methane, coal, potassium, sodium phosphate; locatable minerals, including bentonite, gypsum, and uranium, and salable minerals, including sand, gravel, rip rap, building stone, common clay, decorative stone (including moss rock), clinker, and scoria.

**Predator Animal.** Wyoming's designated predator animal list, where funds may be used for control methods of coyote, jackrabbit, porcupine, raccoon, red fox, skunk, or stray cat; and gray wolf as allowed by law and as an organism that hunts and kills other organisms for food.

**Predacious Bird.** Any predatory avian species that is permitted to be taken under either Wyoming or federal law.

**Stakeholder.** Persons, business, or groups who have a local, vested interest in a proposed action.

# Chapter 1

## GENERAL LAND USE PLANNING





## Chapter 1 – General Land Use Planning

### 1.1 County Overview

In Campbell County, Wyoming, state and federal lands compose approximately 18% of the surface acres and approximately 83% of the subsurface estate. The use and management of these surface and subsurface resources are inseparable from the economy of Campbell County. The intent of the NRLUP is to preserve the custom and culture of Campbell County, safeguard private property rights, facilitate a free market economy, and ensure that management decisions allow future generations to enjoy and realize the intrinsic and economic value of the county's natural resources. Through cooperation with state and federal agencies, Campbell County Board of Commissioners can achieve the stated goals and objectives set forth in the NRLUP.

This NRLUP is designed to be a positive guide for development and implementation of land use planning and management decisions by state and federal land management and regulatory agencies. Campbell County supports the continued use and conservation of land in accordance with the existing custom and culture specifically described below. In compliance with current state and federal laws, Campbell County expects all state and federal agencies to coordinate with Campbell County's local governments in order to effectively plan and manage activities associated with state and federal lands within the geographic boundaries of Campbell County. State and federal agencies proposing, analyzing, or considering actions that will impact the resources, goals or objectives discussed and/or analyzed in the NRLUP are expected to prepare and submit in writing in a timely manner to report(s) on the purposes, objectives, and estimated impacts of such actions, including economic impacts to the local governments. State and federal representatives should provide these report(s) to the local governments for review and coordination prior to federal or state initiation of action.

Federal agencies shall negotiate, develop, and maintain cooperating agency agreements with the Campbell County Board of Commissioners for purposes of land use planning efforts, project analyses and management decisions that affect, relate to, or occur on federal lands or associated mineral interests in Campbell County.

Actions by the State of Wyoming affecting, relating to, or occurring in Campbell County shall be coordinated with the affected local government(s) and formalized, where possible, with a formal Memorandum of Understanding (MOU).

Federal land management planners and decision-makers should develop, draft, and review all future planning, project analysis, and management decision documents in a manner that assures consistency with this NRLUP wherever possible; identify any inconsistencies or conflicts that may exist with the NRLUP; take practical and reasonable steps to resolve the conflicts to ensure consistency and compliance with this plan; and describe these findings in the planning or other decision documents.

It is Campbell County's policy that federal land use planning and other decision-making should:

- Involve a high level of cooperation and coordination.
- Be multi-jurisdictional to the greatest extent practical.
- Incorporate the principles of performance-based and adaptive management, while respecting the legal interests and rights granted on federal lands.
- Identify, disclose and monitor socioeconomic effects.
- Include a large-scale cumulative analysis of effects, temporally and geographically.
- Be based on a holistic view of entire ecosystem, rather than a species-by-species or resource-by-resource approach.
- Use the best available data evaluated by rigorous scientific methodology and principles.

## 1.2 Custom and Culture

Major land uses on state and federal lands in Campbell County include: coal and uranium mining; oil and gas exploration, production, and associated development; livestock grazing; and recreation, which includes a broad spectrum from wilderness and primitive use to developed-area recreation, both motorized and non-motorized. It is these myriad uses that form the custom and cultural attributes of Campbell County. The traditions of its citizens are based in these land uses.

Other important components of state and federal lands include the land's inherent value as open space for use by the public, providing habitat for flora and fauna, and its role memorializing historical and cultural values associated with human uses of the land throughout history. Further, the county specifically recognizes that state trust lands provide significant revenues to support public education and other state institutions in Wyoming.

Campbell County supports the maintenance and enhancement of these custom and cultural values and opposes any change in land use that does not evaluate, mitigate, and minimize impacts to its custom and culture and the economic stability of the county.

Federal land managers shall evaluate, analyze, and, to the greatest extent possible, incorporate the custom and cultural values of the county when developing plans or projects and making recommendations that affect those values. Furthermore, considering the importance of these values to the county, state and federal agencies shall cite the consideration process used to assess impacts to county custom and culture in management plans and other management and decision documents and the steps taken to protect the county's custom and cultural values in each plan and/or project.

Because of the importance of its custom and culture, federal and state agencies can be assured that Campbell County will review state and federal land use and planning documents, decisions and/or issues impacting the county's custom and culture and comment on and make recommendations pertinent to the issue in question. Responsible use of federal lands is use that benefits the custom and cultural values of the county.

It is Campbell County’s policy that state and federal land managers seek out and take into full consideration data and information available from local sources when developing plans and/or making decisions or recommendations. Local governmental agencies (including the county, towns, school districts, public health care providers, and other local agencies) and industry have important and useful data and other information regarding custom and cultural values that may not be available from state or federal data sources.

Management of federal and state lands must recognize valid existing rights and interests in those lands. Livestock grazing permits and preference, mineral leases, mining claims, recreation permits and concessionaire contracts, special use leases and permits, and rights-of-way (ROWS) are integral in the administration, governance and economic security of the county’s communities and its citizens.



# Chapter 2

## LANDS AND REALTY



## Chapter 2 – Lands and Realty

### 2.1 Policy

Sustain environmentally, socially, and economically efficient multiple-use federal lands by preserving existing uses while protecting valid rights associated with those lands. Support state trust land management consistent with state constitutional, statutory and regulatory requirements.

### 2.2 Goals

- Avoidance and minimization of impacts to land resources during resource development. Legal application and use of eminent domain laws with government and those that use eminent domain respecting and adequately compensating private property owners.
- Promote federal land management which encourages siting of linear and other infrastructure projects on federal lands, where technically and economically feasible. Proper and legal application of split-estate laws and regulations, based in first encouraging cooperation and furthering the interests of the various owners in the split-estate context. Environmentally responsible resource use.
- Identification and disposal of isolated, difficult to manage, federal and state lands, where warranted. Protection of property and valid rights associated with land ownership and state and federal leases and permits. Continued multiple-use of federal lands. Administration of state trust lands in a manner consistent with state constitutional, statutory, and regulatory provisions.
- Improved health of the land through sustainable, cost-effective management practices, including land reclamation.

### 2.3 Objectives

- *Actively participate in the planning, regulation, and monitoring of state and federal land resources in relation to surface and subsurface land use.*
- *Encourage the use of coordinated resource management planning on the development and change of use on state and federal land, where applicable.*
- *Locate energy transmission infrastructure, such as oil and gas pipelines, data providers, and high voltage electric transmission lines in existing utility corridors or easements.*
- *Encourage coordination and cooperation between competing energy interests on same and adjacent lands to maximize development of available energy and mineral resources and minimize impacts on private landowners.*
- *Support proactive identification of potential land exchanges that will consolidate land ownership type and reduce isolated federal and state land parcels.*
- *Prioritize land exchanges in areas where there may be resource or management conflicts between federal managers and neighboring private or state landowners.*
- *Promote completion of land exchanges in a timely and cost-effective manner that are mutually beneficial to private, Federal, state and public interests.*
- *Strive for no net loss of private lands in Campbell County. Net loss shall be measured in acreage and fair market value.*

- *Initiate state or federal land exchanges or acquisitions only with willing private landowners without coercion or threat by state or federal agencies.*
- *Make available immediately, interim and final reclamation options to use as needed to address specific projects and offer flexibility in order to address individual land resource needs.*
- *Utilize federal and state agency standards for reclamation practices.*
- *Implement best management practices (BMPs) utilizing appropriate and accepted conservation measures, reclamation standards, and/or mitigation techniques to ensure sustained multiple use.*
- *Support adequate bonding requirements to ensure complete removal and successful reclamation of state and federal agency permitted projects.*
- *Support bond release efforts by energy companies in order to more fully utilize use of private and public lands.*
- *Notify affected landowners and stakeholders of any proposed action affecting existing state or federal land uses.*
- *Seek to ensure that private property rights are protected in state and federal planning processes.*
- *Work with local, state and federal agencies to achieve the desired goal of sustained multiple-use of federal land and resources.*

## 2.4 Land Ownership

Campbell County has a rich heritage and culture in agriculture; however, its character is historically and currently defined by the economic influences of the mineral extraction industry. Surface ownership within Campbell County consists of approximately 2,514,835 acres private, 188,662 acres state, and 363,843 acres federal (Table 2-1; Figure 2-1 and Figure 2-2). However, the subsurface estate (minerals) is primarily held in federal ownership (approximately 2,544,681 acres federal and 522,660 acres private). This condition is referred to as a split-estate mineral ownership and heavily influences land development patterns in Campbell County. Therefore, development of state or federal holdings can have significant impacts on residents of the county and impact to private property owners. Multiple, sustained, economically viable uses of public lands is of great importance to Campbell County.

**Table 2-1. Surface and subsurface land ownership in acres within Campbell County, Wyoming.**

Ownership	Private		State		Federal	
	Acres	Percent	Acres	Percent	Acres	Percent
Surface	2,514,835	82.8	188,662	100	363,843	12.5
Subsurface	522,660	17.2	0	0.0	2,544,681	87.5
<b>Totals</b>	<b>3,037,495</b>	<b>100</b>	<b>188,662</b>	<b>100</b>	<b>2,908,524</b>	<b>100</b>



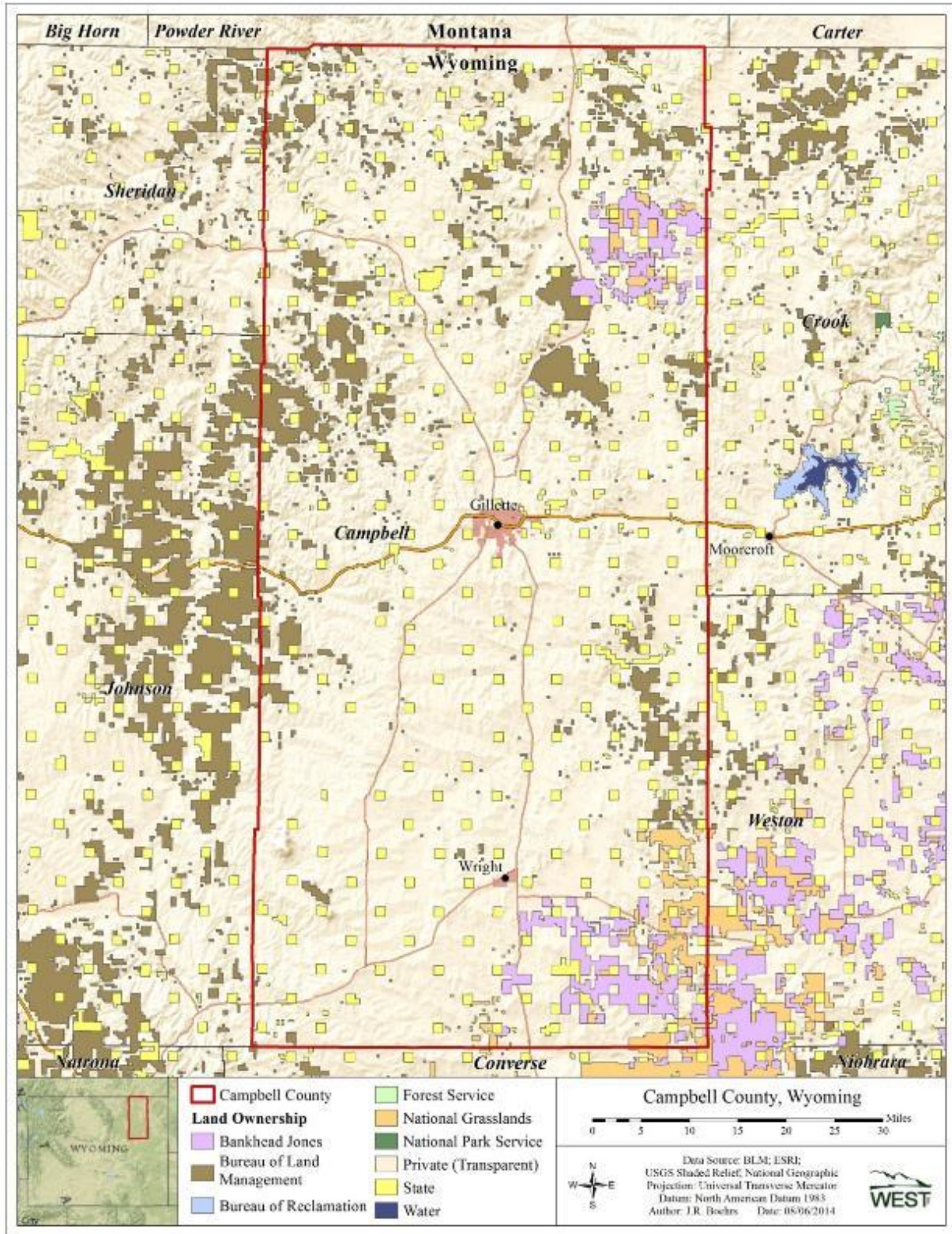


Figure 2-1. Land ownership in Campbell County.



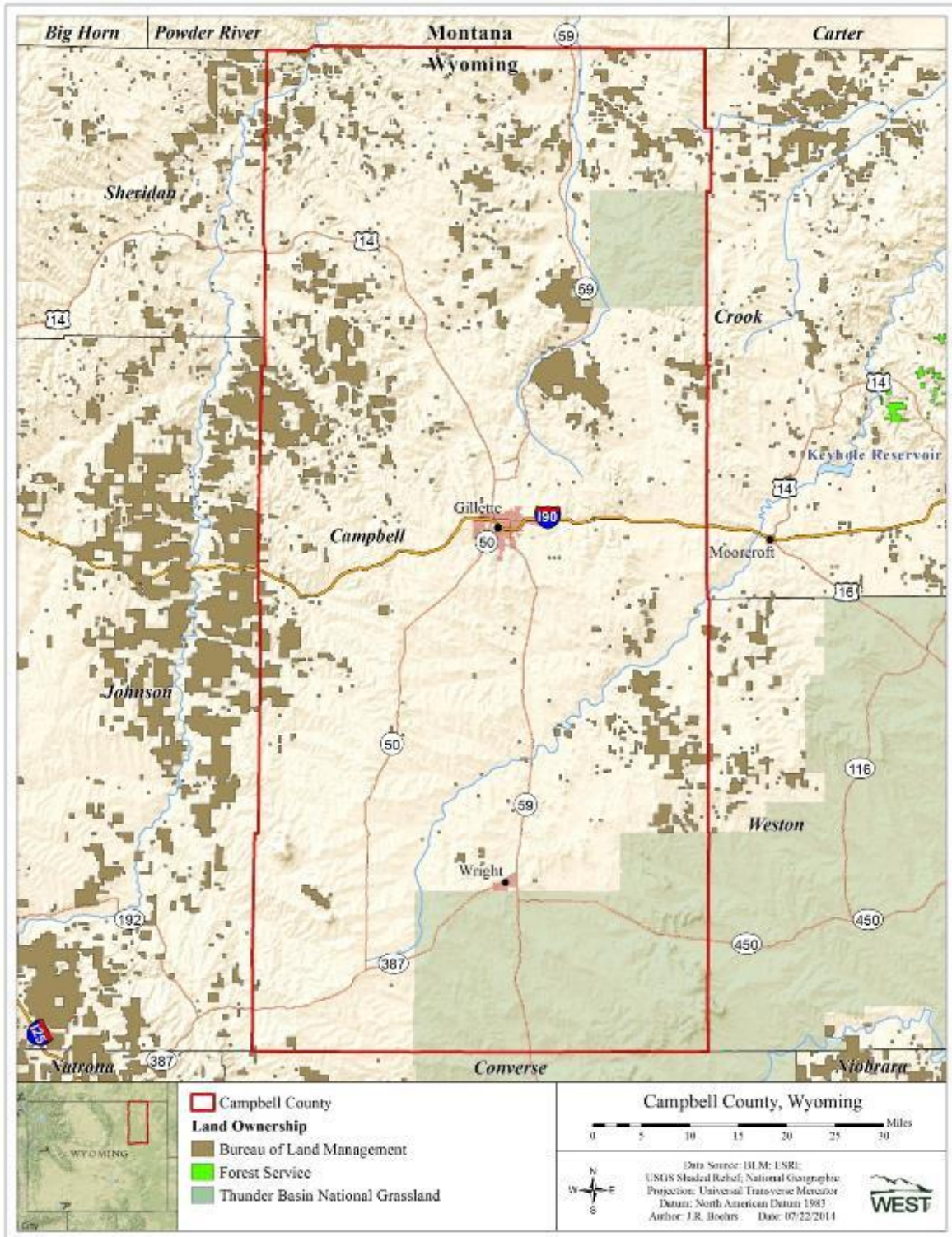


Figure 2-2. Public lands in Campbell County that are managed by the U.S. Bureau of Land Management (BLM) and the U.S. Forest Service (USFS). The Thunder Basin National Grassland is administered by the USFS, though lands within the administrative boundary shown on this map are not all managed by USFS; they are a checker board of private, state, and USFS lands.

# Chapter 3

## NATURAL, BIOLOGICAL, & CULTURAL RESOURCES





## Chapter 3 – Natural, Biological, and Cultural Resources

### 3.1 Air Quality

Air quality is affected by the amount and kinds of pollutants that are released into the air. However, other factors are involved that play a role in determining the degree of air pollution in a specific area; these factors are primarily topography and weather. The population in Campbell County that is affected by local and regional air quality conditions was 47,026 in 2020, of which almost two thirds resided in the City of Gillette (U.S. Census Bureau [USCB] 2020). The population density in the county averaged 9.7 people per square mile in 2020; excluding Gillette, population density averaged 2.8 people per square mile.

#### 3.1.1 Policy

Maintain or improve air quality consistent with approved standards in Campbell County for the protection of the health of residents and in furtherance of responsible development.

#### 3.1.2 Goals

- Air quality standards and regulations which do not prohibit reasonable economic activity within Campbell County. Air quality monitoring according to approved protocols and standards.
- Utilization of economically feasible and best available technologies in air quality management and monitoring.

#### 3.1.3 Objectives

- *State and federal agency collaboration with relevant county agencies and stakeholders in the development of provisions or stipulations for proposed projects that may significantly impact air quality;*
  - *collaborate with relevant county agencies and stakeholders in developing mitigation plans to reduce potential impacts to air quality from proposed projects;*
  - *consult, coordinate, and collaborate with county agencies and stakeholders in dust suppression projects;*
  - *collaborate with Campbell County on air quality modeling and quantitative data analysis for air quality and visibility standards affecting Campbell County industries and stakeholders;*
  - *cooperate, coordinate, and consult with local governments and affected stakeholders to minimize emissions and reduce economic impacts related to air quality management where possible; and*
  - *utilize credible scientific data, and economic cost benefits analysis when proposing and developing air quality standards and regulations.*
- *Do not apply air quality controls to naturally occurring events, such as drought or wind events, which are beyond the human ability to control.*

- *Make open and available to the public raw collected air quality monitoring data at all stages of collection, publication and processing.*
- *Utilize best available and economically viable technologies in development and implementation of air quality standards and regulations.*
- *Make open and available for public inspection methodology and result criteria for the evaluation of air quality monitoring data prior to collection of the data.*

### **3.1.4 Campbell County Setting**

#### **3.1.4.1 Topography**

Campbell County is located in the Powder River Basin and Belle Fourche River Basin in northeastern Wyoming. Elevation in the county generally increases from north to south, ranging from 3,500 feet in the north to 6,000 feet in the Pumpkin Buttes (Figure 3-1). The Bighorn Mountain Range lies west of Campbell County, where peaks extend up to 13,000 feet. To the east lies the western edge of the Black Hills where peaks extend up to 7,242 feet.



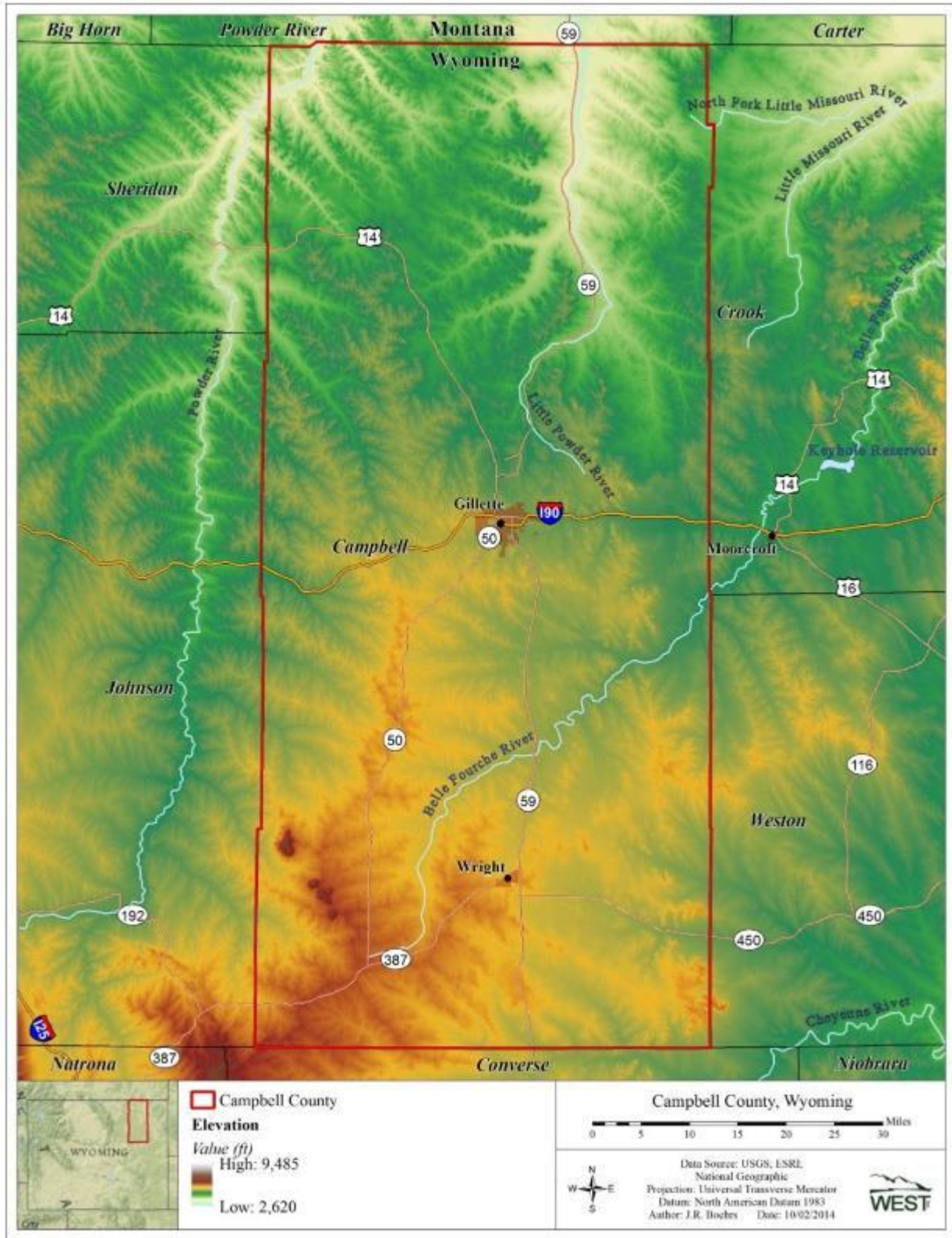


Figure 3-1. Elevation map of Campbell County.

### 3.1.4.2 Meteorology

Wind data from the Gillette-Campbell County Airport between 1998 and 2012 show the wind direction is most frequent from the south in the summer, and from the southwest, west, and northwest in the winter (Figure 3-2 and Figure 3-3). Air pollutants are transported and dispersed by wind, so wind direction is important in determining impacts from air pollutants. For example, northeasterly and easterly winds are the least frequent winds in the county; therefore, emissions from sources northeast or east of Gillette are less likely to impact the majority of the Campbell County residents. Calm conditions, which are not assigned a direction, are most frequent in the summer months, which can lead to an accumulation of air pollutants.

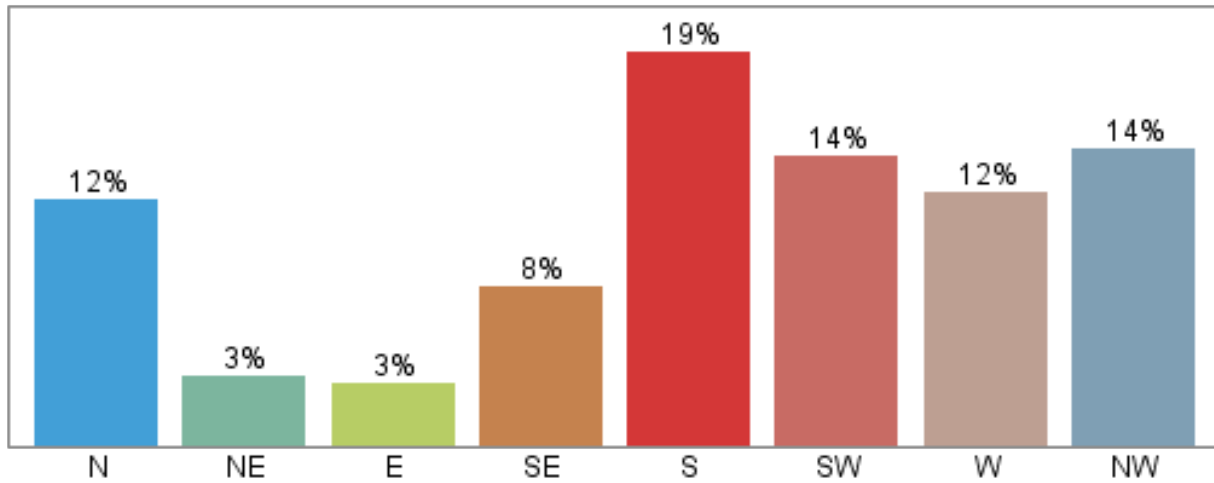


Figure from weatherspark.com

**Figure 3-2. Annual wind direction frequency at Gillette-Campbell County Airport (1998 – 2012).**

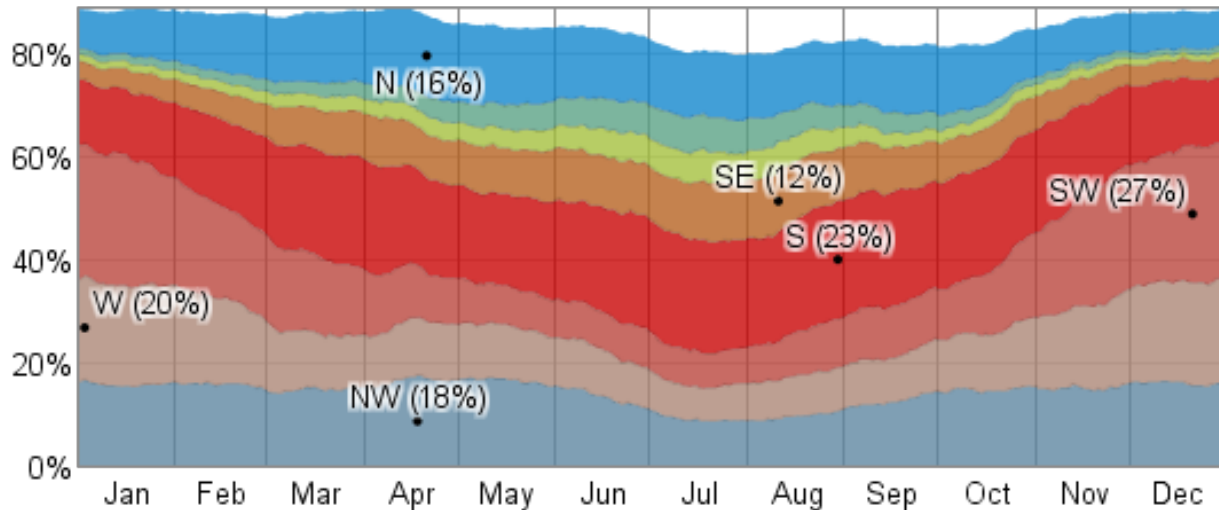
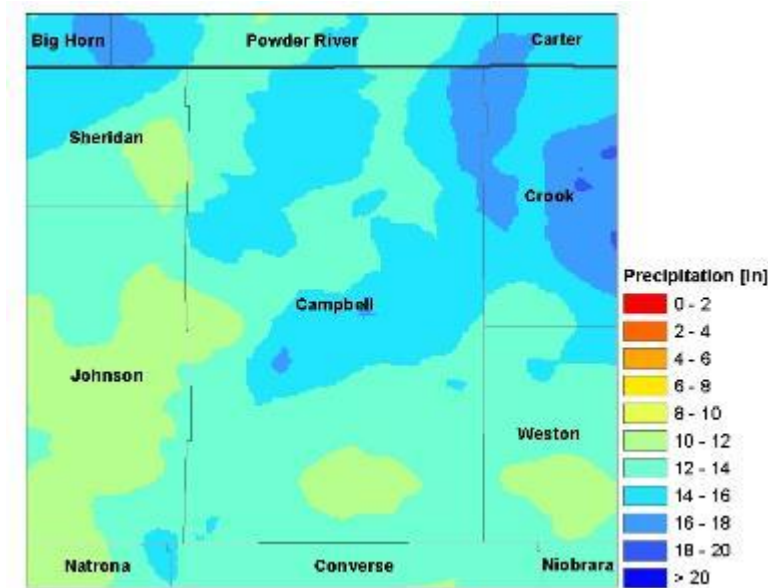


Figure from weatherspark.com

**Figure 3-3. Daily wind direction frequency at Gillette-Campbell County Airport (1998 – 2012).**

Precipitation averages 10 to 16 inches per year in most of the county, with higher amounts in the northeast and lesser totals in the south, based on 1981 – 2010 data (Figure 3-4). In Gillette, the spring months from 1998 to 2008 were the wettest, with precipitation typically measured in one

out of every three days between April and June (Table 3-1). High frequency of measurable precipitation helps remove pollutants from the atmosphere by wet deposition, as well as dampening soil that suppresses dust emissions from vehicles on paved and unpaved roads. May is typically the wettest month, as listed in Table 3-1. Winters tended to be driest due to the limited moisture content associated with cold temperatures.



Source: PRISM 2014

**Figure 3-4. 1981-2010 annual average precipitation.**

**Table 3-1. 1998-2008 monthly average precipitation at Gillette-Campbell County Airport.**

	Precipitation [inches]	Average Number of Days with Measurable Precipitation
January	0.20	5.2
February	0.31	6.7
March	0.69	8.0
April	1.61	10.7
May	2.63	11.4
June	1.69	9.7
July	1.31	7.6
August	0.67	5.9
September	1.06	7.7
October	1.37	9.0
November	0.34	5.4
December	0.22	5.2
<b>Annual</b>	<b>12.10</b>	<b>92.5</b>

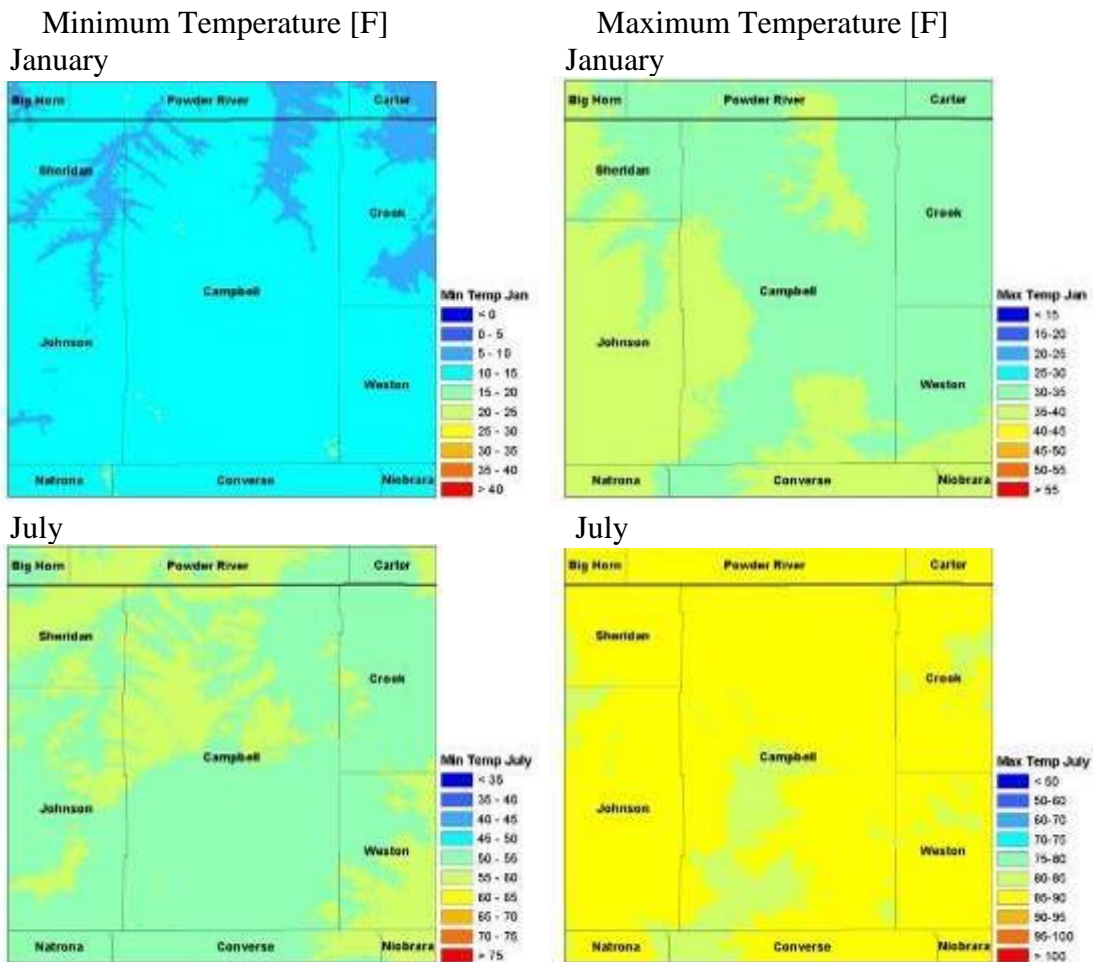
Source: Western Region Climate Center 2009

In Gillette, the average high temperature from 1998 to 2008 was 90 degrees (°) Fahrenheit (F) and the average low was 57 °F in July (Table 3-2). In the winter months, average highs were normally in the upper 30s, with average lows in the mid-teens. Spatially, average high and low temperatures vary little county-wide (Figure 3-5).

**Table 3-2. 1998-2008 monthly average temperatures at Gillette-Campbell County Airport.**

	Average High Temperature [°F]	Average Low Temperature [°F]
January	38	16
February	39	17
March	48	23
April	57	31
May	65	39
June	77	48
July	90	57
August	87	55
September	74	44
October	59	33
November	47	23
December	38	15
<b>Annual</b>	<b>60</b>	<b>33</b>

Source: Western Region Climate Center 2009  
 ° = degrees, F = Fahrenheit



Source: PRISM 2014

**Figure 3-5. 1981 – 2010 monthly average low and high temperatures in January and July.**



### 3.1.5 Air Quality Standards

National Ambient Air Quality Standards (NAAQS) and Wyoming Ambient Air Quality Standards (WAAQS) have been set for various air pollutants that are monitored for health concerns. Controls are usually required at the source to limit the release of these air toxins into the atmosphere. In general, states have assumed primary responsibility for enforcing most federal permit requirements, with the U.S. Environmental Protection Agency (USEPA) exercising a formal review and oversight responsibility. A discussion of the state and federal regulatory framework for air quality is provided in Appendix A.

#### 3.1.5.1 Criteria and Hazardous Pollutants

State and federal air quality management programs have evolved using two distinct management approaches:

- The State Implementation Plan (SIP) process of setting ambient air quality standards for acceptable exposure to air pollutants, conducting monitoring programs to identify locations experiencing air quality problems, and then developing programs and regulations designed to reduce or eliminate those problems; and
- The Hazardous Air Pollutant (HAP) regulatory process of identifying specific chemical substances that are potentially hazardous to human health and then setting emission standards to regulate the amount of those substances that can be released by individual commercial or industrial facilities or by specific types of equipment.

Air quality programs based on ambient air quality standards (i.e., SIP) typically address air pollutants that are produced in large quantities by widespread types of emission sources and that are of public health concern because of their toxic properties. The USEPA has established NAAQS for six different pollutants, which often are referred to as criteria air pollutants (ozone [O<sub>3</sub>], nitrogen dioxide [NO<sub>2</sub>], carbon monoxide [CO], sulfur dioxide [SO<sub>2</sub>], suspended particulate matter [fine particulate matter (PM<sub>2.5</sub>) and inhalable particulate matter (PM<sub>10</sub>)], and lead [Pb]). Standards for suspended particulate matter have been set for two size fractions: PM<sub>10</sub> and PM<sub>2.5</sub>. The 10 and 2.5 refer to the size of the particulate matter, with PM<sub>10</sub> representing particulate matter of a diameter of less than or equal to 10 microns (μ or micrometers [μm]) and PM<sub>2.5</sub> representing particulate matter with a diameter of less than or equal to 2.5 μm. NAAQS are adopted to address and/or alleviate acute and chronic health effects where evidence shows they are triggered by certain levels of air pollution, and the standards are set at threshold levels to prevent adverse health effects with a margin of safety. NAAQS and WAAQS (Appendix A) apply to outdoor locations to which the general public has access. The State of Wyoming has adopted the NAAQS with one exception; Wyoming continues to include an annual PM<sub>10</sub> standard, which was revoked by the EPA in 2006 (Appendix A).

Air pollutants covered by state and federal ambient air quality standards can be categorized by the nature of their toxic effects as:

- Irritants (such as O<sub>3</sub>, particulate matter, NO<sub>2</sub>, SO<sub>2</sub>, sulfate particles, and hydrogen sulfide) that affect the respiratory system, eyes, mucous membranes, and the skin;

- Asphyxiates (such as CO and nitric oxide) that displace oxygen or interfere with oxygen transfer in the circulatory system, affecting the cardiovascular and central nervous systems;
- Necrotic agents (such as O<sub>3</sub>, NO<sub>2</sub>, and SO<sub>2</sub>) that directly cause cell death; or
- Systemic poisons (such as Pb particles) that affect a range of tissues, organs, and metabolic processes.

Air quality programs based on regulation of other hazardous substances (i.e., HAP) typically address chemicals used or produced by limited categories of industrial facilities. Programs regulating hazardous air pollutants focus on substances that alter or damage the genes and chromosomes in cells (mutagens); substances that affect cells in ways that can lead to uncontrolled cancerous cell growth (carcinogens); substances that can cause birth defects or other developmental abnormalities (teratogens); substances with serious acute toxicity effects; and substances that undergo radioactive decay processes, resulting in the release of ionizing radiation. Federal air quality management programs for hazardous air pollutants focus on setting emission limits for particular industrial processes rather than setting ambient exposure standards. Federal emission standards for hazardous air pollutants have been promulgated as National Emission Standards for Hazardous Air Pollutants (NESHAP) and as Maximum Available Control Technology (MACT) standards (USEPA 2012a). The federal MACT standard for mercury emissions from coal-fired power plants represents an example of such hazardous air pollutant control programs. The NESHAP and MACT standards are implemented through state and federal air quality permit programs.

The Clean Air Act 1970 (CAA) affords special air quality and air quality related values (AQRVs) protection to 156 areas in the U.S. that are known as Class I areas. Class I areas consist of specific National Parks and Wilderness areas. AQRVs include visibility, and nitrogen and sulfur deposition. There are currently no Prevention of Significant Deterioration program Class I areas within Campbell County. The closest Class I areas to Campbell County are the North Absaroka and Washakie Wilderness areas to the west, the Northern Cheyenne Indian Reservation to the northwest, and the Wind Cave and Badlands National Parks to the east.

The CAA requires each state to identify areas that have ambient air quality in violation of federal standards. States are required to develop, adopt, and implement a SIP to achieve, maintain, and enforce federal ambient air quality standards in these nonattainment areas. Deadlines for achieving the federal air quality standards vary according to air pollutant and the severity of existing air quality problems. The SIP must be submitted to and approved by the USEPA. SIP elements are developed on a pollutant-by-pollutant basis whenever one or more air quality standards are being violated.

The status of areas with respect to federal ambient air quality standards are classified as nonattainment (violating the air quality standard), attainment (better than federal standards), or unclassified (due to an absence of monitoring data). Areas that have been designated from nonattainment to attainment are considered maintenance areas, although this designation is seldom indicated in formal listings of attainment status designations. Unclassified areas are

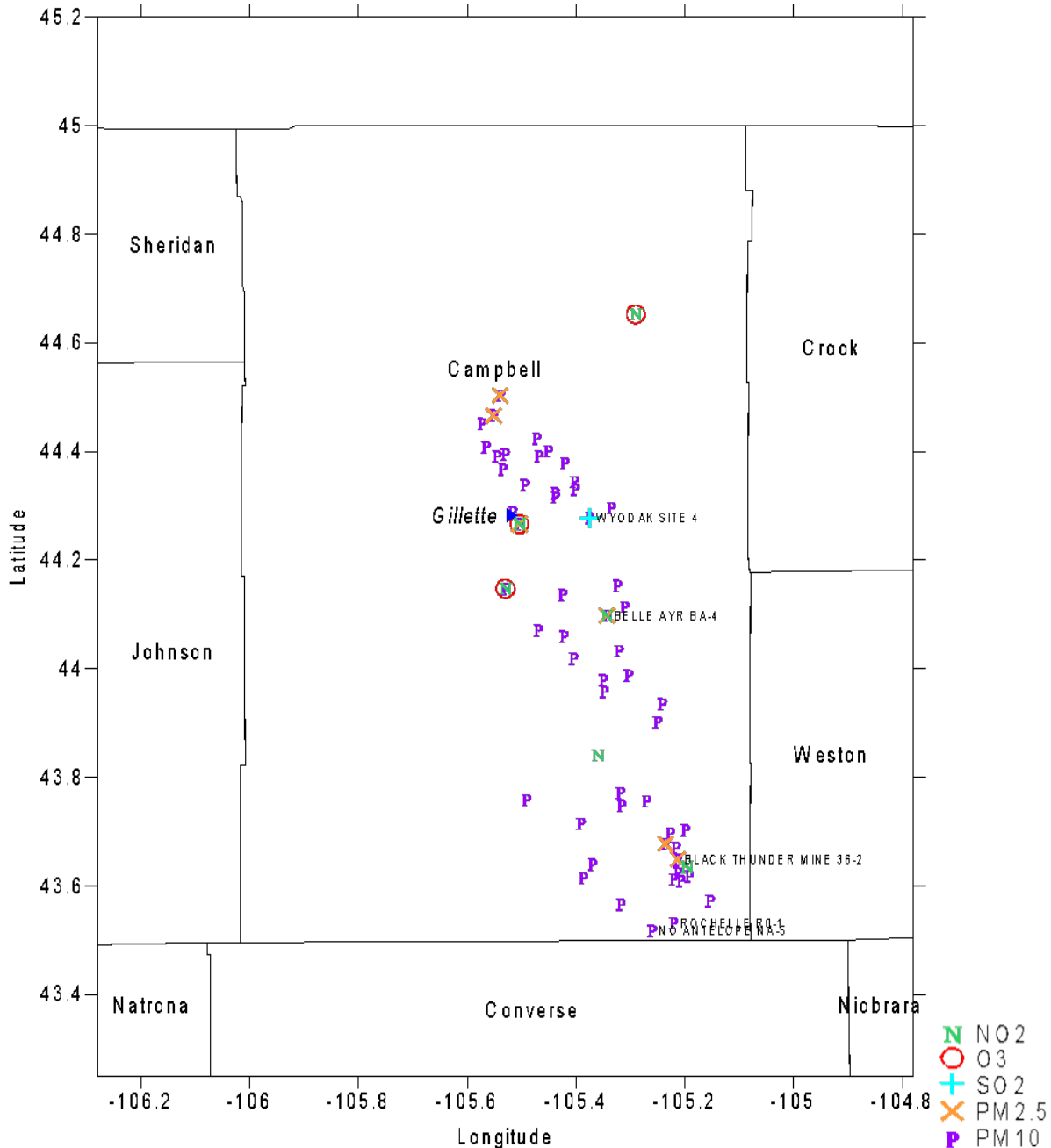
treated as attainment areas for most regulatory purposes. Campbell County is currently considered in attainment or unclassified for all federal ambient air quality standards.

### Air Quality Observations

Several air quality monitors are located in Campbell County (Figure 3-6); most are associated with mines in the central and southeast part of the county. PM<sub>10</sub> monitors, in particular, are abundant in the county to monitor the particulate emissions near mines. Air quality data from the ten most recent years were downloaded from the USEPA (USEPA 2021a) for monitors in Campbell County and surrounding counties (Figure 3-7). The data were compared to the state and federal ambient air quality standards. The standards, data and detailed discussion are provided in Appendix A; a summary follows:

- O<sub>3</sub> - there were no violations of the 70 parts per billion (ppb) 8-hour ozone NAAQS within Campbell County or in adjacent counties between 2011 and 2020. However, the Converse County Long-Term site recorded a fourth highest daily maximum 8-hour ozone concentration of 71 ppb in 2020 and must remain below 70 ppb in 2021 and 2022 to show compliance with the standard (Appendix A).
- CO - only one CO monitoring site is located in the area. The Converse County Long-Term site has recorded concentrations well below the 1-hour and 8-hour CO standards. Typically, the largest source of CO emissions is gasoline vehicles and because vehicle emissions are being reduced, even large urban areas rarely exceed the CO standards.
- NO<sub>2</sub> - there were no violations of the 1-hour or annual NO<sub>2</sub> NAAQS within Campbell County or in adjacent counties between 2011 and 2020.
- SO<sub>2</sub> – the only SO<sub>2</sub> monitor in Campbell during the past 10 years was at the Black Hills Power Site 4. This site reported concentrations below the 1-hour and 3-hour NAAQS thresholds through 2017, when monitoring was discontinued. Multiple monitoring sites located in adjacent counties also show compliance with the SO<sub>2</sub> standards.
- PM<sub>2.5</sub> – Campbell County had 4 PM<sub>2.5</sub> monitors operating during the last 10 years. The applicable 24-hour PM<sub>2.5</sub> concentrations were all below the NAAQS thresholds between 2011 and 2020. Two monitors in adjacent counties reported 24-hour values above 35 microgram per cubic meter (µg/m<sup>3</sup>), the Broadus, MT, monitor in 2017 and the Casper SLAMS monitor in 2020. The 3-year average at Broadus for 2016 – 2018 is 26.5 µg/m<sup>3</sup>, which is below the 35 µg/m<sup>3</sup> standard. The 3-year average at the Casper SLAMS site is currently below 35 µg/m<sup>3</sup>.
- PM<sub>10</sub> – of the 49 PM<sub>10</sub> monitoring sites in Campbell County (mostly associated with mines), only NARM RO-1 recorded PM<sub>10</sub> levels that exceeded the 24-hour PM<sub>10</sub> NAAQS standard during the 10-year data set. However, a region is considered out of compliance when four or more exceedances are monitored over a 3-year period, which did not occur. Three exceedances were monitored at NARM RO-1 during 2011 to 2012. One concentration of 150 µg/m<sup>3</sup> also occurred in 2012, which was close to putting the region out of compliance. NARM RO-1 also exceeded the annual PM<sub>10</sub> level of 50 µg/m<sup>3</sup> in 2012. However, when averaged over three years per the standard, the site remained in compliance with the annual Wyoming Ambient Air Quality Standards (WAAQS).

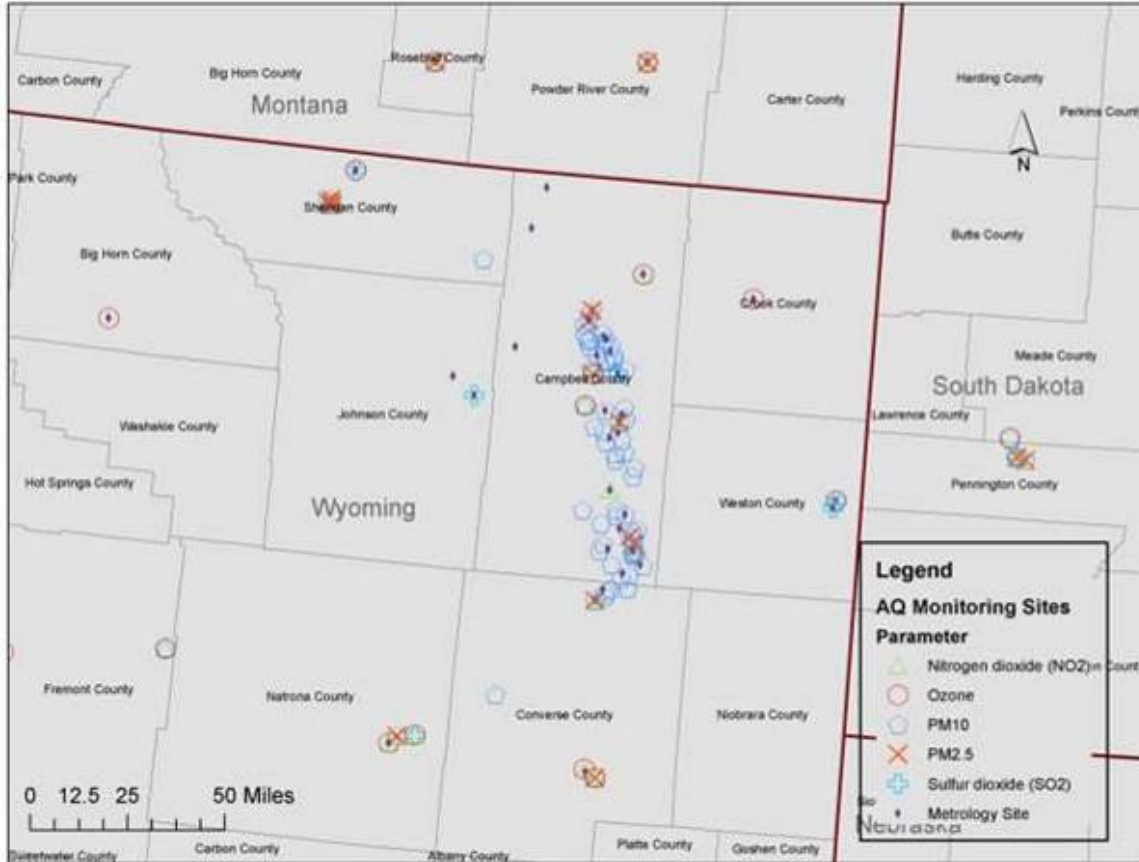
Although respective 24-hour and annual PM<sub>10</sub> levels were exceeded on certain occasions, not enough exceedances were reported to be considered in violation of either of the PM<sub>10</sub> standards. PM<sub>10</sub> is the only pollutant that comes close to violating the NAAQS or WAAQS in Campbell County. However, monitoring results over the last 10 years show there are no violations of any national or state standards.



NO<sub>2</sub> = nitrogen dioxide; O<sub>3</sub> = ozone; SO<sub>2</sub> = sulphur dioxide; PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/ fine particulate matter; PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter. Source: USEPA 2021a

**Figure 3-6. Air quality monitors in Campbell County.**





Data Source: U.S. Environmental Protection Agency 2021a

**Figure 3-7. Air quality monitors in Campbell County and nearby counties.**

**3.1.6 Future Emissions**

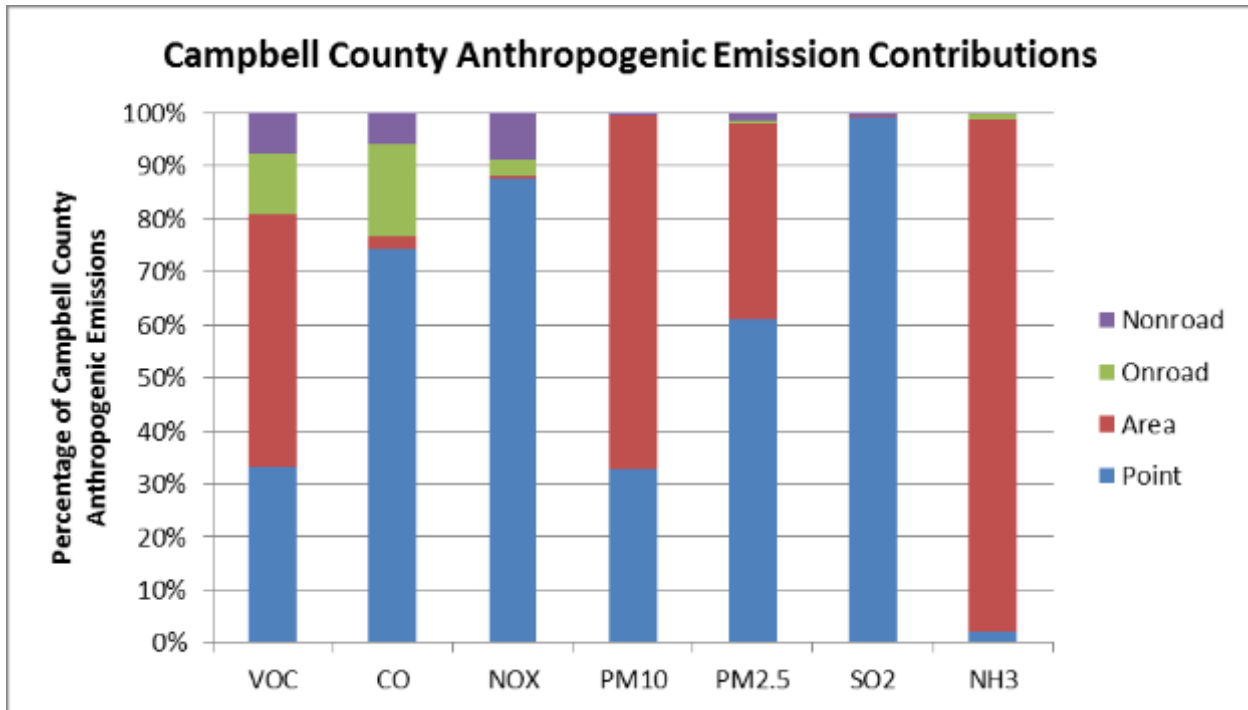
In order to understand the types of control strategies that may be effective in reducing emissions in Campbell County, the important sources of emissions must be identified. Below, criteria pollutant emission inventories are examined to identify the highest emitting sources for which emission reductions may have the largest impact on air quality.

**3.1.6.1 Criteria Pollutants**

Emission inventories typically provide emission estimates for the criteria pollutants (NO<sub>x</sub>, volatile organic compounds [VOC], CO, SO<sub>2</sub>, ammonia [NH<sub>3</sub>], PM<sub>2.5</sub>, and PM<sub>10</sub>). Criteria pollutant emission estimates from the USEPA 2011 National Emission Inventory (NEI; USEPA 2013) for Campbell County are based on four major anthropogenic emission contributions (on-road mobile, non-road mobile, area, and point sources; Figure 3-8). On-road mobile consists of motor vehicles and heavy-duty trucks that operate on paved and unpaved roadways. Non-road sources include engines and vehicles that do not typically operate on roadways, and include locomotives, airplanes, marine vessels, agricultural and construction equipment, lawn and garden equipment, off-highway vehicles (OHVs), generators, etc. Area sources include residential and commercial fuel combustion, consumer products, livestock and agricultural emissions, oil and gas production fugitive sources and dust emissions. Point sources include emissions from



mining, compressors, industries and electric generating units (EGUs). The four major anthropogenic emission contributors can further be broken down by sector (Table 3-3).



VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = nitrogen oxide; PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; SO<sub>2</sub> sulphur dioxide NH<sub>3</sub> = ammonia. Source: USEPA 2011

**Figure 3-8. Campbell County criteria pollutant emissions by sector.**

**Table 3-3. 2011 anthropogenic emission in Campbell County, Wyoming by sector [tons/year].**

Sector	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
<b>Point</b>							
Mining	246	23,531	28,594	12,724	4,628	696	0
Oil and Gas	1,161	1,372	2,911	62	54	0	0
Other	29	129	395	398	377	795	16
EGU	90	1,716	4,256	1,494	240	4,243	23
<b>Point Subtotal</b>	<b>1,527</b>	<b>26,749</b>	<b>36,157</b>	<b>14,678</b>	<b>5,300</b>	<b>5,735</b>	<b>39</b>
<b>Area</b>							
Fugitive Dust	-	-	-	29,852	3,088	-	-
Agricultural NH <sub>3</sub>	-	-	-	-	-	-	1,920
Oil and Gas	605	28	40	1	1	<1	-
Other	1,576	733	163	110	102	9	10
<b>Area Subtotal</b>	<b>2,181</b>	<b>762</b>	<b>203</b>	<b>29,963</b>	<b>3,191</b>	<b>10</b>	<b>1,931</b>
<b>On-Road</b>							
<b>Vehicles</b>	<b>526</b>	<b>6,253</b>	<b>1,239</b>	<b>58</b>	<b>45</b>	<b>6</b>	<b>21</b>

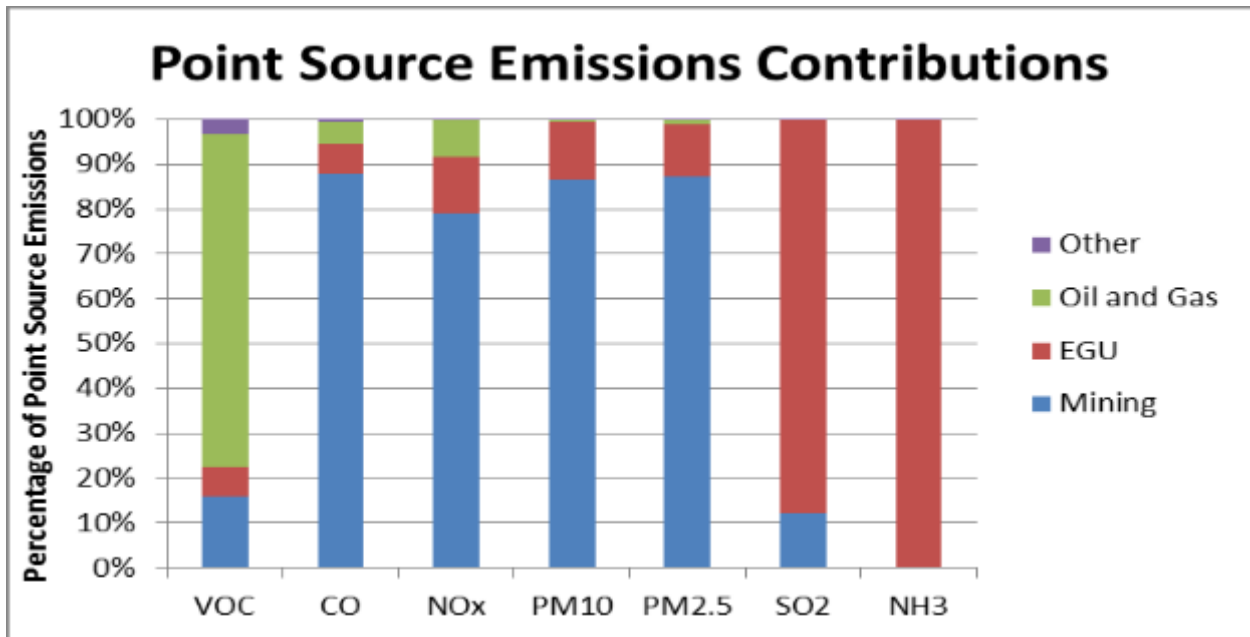
Sector	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
<b>Non-Road</b>							
Locomotives	171	508	3,446	115	106	36	2
Other Equipment	178	1,638	165	16	15	<1	<1
<b>Non-Road Subtotal</b>	<b>349</b>	<b>2,147</b>	<b>3,611</b>	<b>131</b>	<b>121</b>	<b>36</b>	<b>2</b>
<b>Grand Total</b>	<b>35,369</b>	<b>42,463</b>	<b>41,736</b>	<b>44,830</b>	<b>8,657</b>	<b>5,786</b>	<b>1,992</b>

Source: USEPA National Emission Inventory (USEPA 2013)

EGU = electric generating unit. VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub>= nitrogen oxide; PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; SO<sub>2</sub> sulphur dioxide NH<sub>3</sub> = ammonia

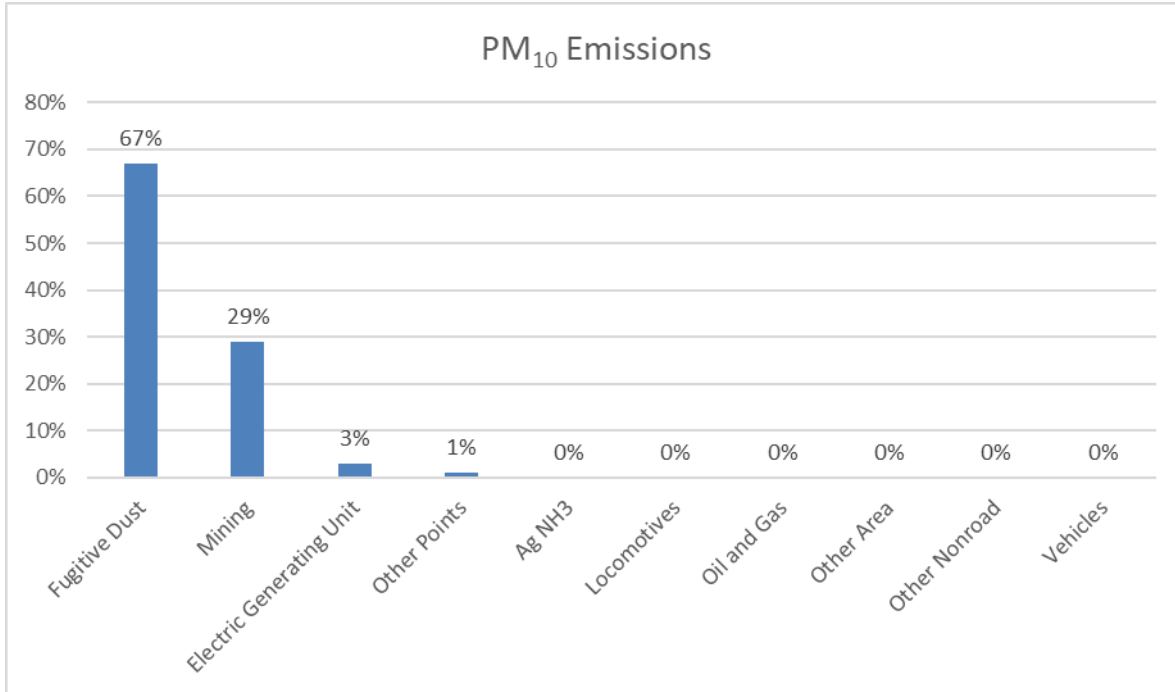
The key findings of the emissions analysis for Campbell County are as follows:

- The majority of anthropogenic emissions are emitted by area sources and point sources.
- Point source emissions are the highest contributors for CO, NO<sub>x</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub>. Mining is the largest source of point source for CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, accounting for 88%, 79%, 87%, and 87% of anthropogenic emissions respectively; EGUs are the largest contributor of SO<sub>2</sub> and NH<sub>3</sub>, while the oil and gas sector is the largest contributor of VOC emissions (Figure 3-9).
- Area sources are the largest contributor to PM<sub>10</sub> (67%) and NH<sub>3</sub> (97%), and the second largest contributor to PM<sub>2.5</sub> emissions (37%). Fugitive dust accounts for almost all PM<sub>10</sub> and PM<sub>2.5</sub> area source emissions and are comprised of emissions from unpaved road dust (92% of PM<sub>10</sub> and 89% of PM<sub>2.5</sub>), construction dust (5% of PM<sub>10</sub> and 5% of PM<sub>2.5</sub>), paved road dust (2% of PM<sub>10</sub> and 4% of PM<sub>2.5</sub>), and agricultural dust (1% of PM<sub>10</sub> and 2% of PM<sub>2.5</sub>). Fugitive dust and mining are the main sources of PM<sub>10</sub> emissions (Figure 3-10).



EGU = electric generating unit.

Figure 3-9. Campbell County point source criteria pollutant emissions by industry.



**Figure 3-10. PM<sub>10</sub> (diameter less than or equal to 10 microns/inhalable particulate matter) emissions by source category.**

Campbell County has some of the largest coal mining operations in the U.S. All of the mines are open pits, extracting coal at or near the surface. In 2011, there were also seven coal-fired power plants located within Campbell County that generate electricity from the local coal mining production. Table 3-4 lists the 2011 emissions from the major coal mines and EGU facilities. Emission control equipment for regulating NO<sub>x</sub>, SO<sub>2</sub> and PM emissions has been installed at seven of the major EGUs in Campbell County (Table 3-5).

**Table 3-4. 2011 emissions from EGUs and coal mines in Campbell County, Wyoming [tons/year].**

Facility Name	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
<b>EGUs</b>							
Wyodak Plant	44	1,062	2,330	1,147	119	2,393	0
Neil Simpson One	7	19	282	351	347	791	16
WYGEN Station I	9	43	601	95	31	559	8
Neil Simpson Two	19	165	600	92	85	542	8
Dry Fork Station	0	153	238	78	7	279	1
WYGEN III	18	91	212	68	7	256	
WYGEN II	4	204	278	52	14	215	5
<b>Coal Mines</b>							
Black Thunder Mine	0	19,781	11,726	4,272	1,791	163	-
North Antelope Rochelle Mine	113	708	3,325	2,898	932	197	-
Cordero Rojo Complex	29	1,290	784	1,441	421	81	-
Buckskin Mine	5	14	312	1,047	563	33	-
Belle Ayr Mine	0	60	730	939	402	17	-
Eagle Butte Mine	0	37	648	841	198	10	-
Coal Creek Mine	0	909	9,100	334	122	12	-

Facility Name	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Rawhide Mine	22	125	450	305	21	34	-
Wyodak Mine	6	58	237	229	85	4	-
Dry Fork Coal Mine	12	210	299	205	18	16	-
Caballo Mine	50	296	791	48	48	79	-

Source: USEPA National Emission Inventory (USEPA 2013)

EGU = electric generating unit. VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub>= nitrogen oxide; PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; SO<sub>2</sub> sulphur dioxide, NH<sub>3</sub> = ammonia

**Table 3-5. Emission controls and generating capacity of EGUs in Campbell County, Wyoming.**

Facility Name	Generating Capacity (MW)	Year Installed	Control Equipment
Wyodak Plant	335 – 362	1978	NO <sub>x</sub> : low- NO <sub>x</sub> burner (LNB) SO <sub>2</sub> : scrubber PM: cloth fiber 'baghouse'
Neil Simpson One	21.8	1969	NO <sub>x</sub> : LNB SO <sub>2</sub> : unknown PM: Electrostatic precipitator
WYGEN Station I	80	2003	NO <sub>x</sub> : Selective catalytic reduction system (SCR) + ultra-LNB SO <sub>2</sub> : unknown PM: fabric filter 'baghouse'
Neil Simpson Two	80 – 90	1995	NO <sub>x</sub> : unknown SO <sub>2</sub> : Circulating Dry Scrubber PM: Electrostatic precipitator + 'baghouse' and bin vent filter
Dry Fork Station	385	2007	NO <sub>x</sub> : LNB + SCR SO <sub>2</sub> : Circulating dry scrubber PM: Fabric filter – baghouse
WYGEN III	101.7	2010	NO <sub>x</sub> : SCR/LNB + over-fire air SO <sub>2</sub> : Dry scrubber - flue gas desulfurization PM: fabric filter - baghouse (PM)
WYGEN II	100	2008	NO <sub>x</sub> : SCR SO <sub>2</sub> : atomizer spray dryer PM: baghouse, bin-vent dust controllers and scrubbers + water and chemical dust suppressants (fugitive)

Source: USEPA2014b and Wyoming Department of Environmental Quality (WDEQ) 2014a

EGU = electric generating unit. LNB = low NO<sub>x</sub> burner, MW = megawatt, NO<sub>x</sub>= nitrogen oxide, PM = particulate matter; SCR = selective catalytic reduction; SO<sub>2</sub> sulphur dioxide,

### 3.1.7 Air Quality Data Summary

Based on a review of the air monitoring data from 2011 to 2020 and the emission inventories, several conclusions can be made. Generally, the air quality in Campbell County is in compliance with federal or state standards or regulations. However, the levels associated with PM<sub>10</sub> were close to violating both state and federal ambient air quality standards.

### 3.1.8 Emission Control Strategies

Emission control strategies that could benefit Campbell County are described below. It is noted that the selection of the most appropriate, efficient, and effective control strategy for any emission sources requires a process to assess project and/or area specific emissions, air quality, and other considerations.



## Coal Mining

Coal mining dust emissions are subject to control as described in the document *Natural Events Action Plan for The Coal Mines of the Powder River Basin of Campbell & Converse Counties, Wyoming* (Wyoming Department of Environmental Quality [WDEQ] 2006). Three levels of required control are specified:

- Best Available Control Technology (BACT): Measures that mines already employ as part of their requirements under their individual WDEQ Air Quality Division permits, including control of dust from stockpiles, roads, coal conveyor transfer points, crushers and processing plants, coal dump hoppers through the usage of moisture or chemical dust suppressants, enclosure of operating areas, baghouses, cyclones, scrubbers, fog systems, and controlled flow transfer chutes.
- Best Available Control Measure: Measures that mines must employ continuously that are not part of the requirement under each mine's individual WDEQ Air Quality Division permit, including controls such as ripping of graded areas, recently reclaimed areas, and topsoil stripped areas to limit suspension of dust.
- Reactionary Control Measures: Measures that mines must employ during a high wind event, including visual inspections, moderation of dumping activities, potential shutdown of scoria crushing operations, potential shutdown of road maintenance activities, increased usage of watering, reduced hauling activities, and reduction or shutdown of earth moving activities.

Control is not required for strategies that were identified in WDEQ (2006) as unreasonable and/or economically infeasible, such as suspension of blasting activities during a high wind event, use of windbreaks, dust control sprinkler systems, irrigation of reclamation areas, and paving of mine haul roads.

## Road Dust

Unpaved road dust is the largest single source of PM<sub>10</sub> emissions in Campbell County according to the 2011 USEPA NEI (USEPA 2013). A large fraction of unpaved road dust is likely due to vehicle activity associated with oil and gas development and, to a lesser extent, mining. Such control strategy projects may include, but are not limited to, application of water or chemical dust suppressants, and paving of unpaved roads.

Campbell County currently utilizes dust suppression agents to help control dust from unpaved roads. Focus by Campbell County Road and Bridge is concentrated in the southern end of Campbell County, where a majority of the mineral development occurs; however, dust mitigation measures are used over all of Campbell County, and work by Road and Bridge increases as activity moves further north and west.

Congestion Mitigation Air Quality funds are used in conjunction with county funding for dust suppression projects. Campbell County also partners with mineral developers on road maintenance and dust suppression agreements and projects.

It is expected that state and federal agencies shall consult, coordinate, and collaborate with county agencies and stakeholders on projects to control road dust emissions.

### Oil and Gas

Oil and gas exploration (e.g., drilling), production (e.g., well sites), and midstream (e.g., compressor stations) emissions from oil, natural gas, and coal bed methane activities might be significant contributors to VOC, NO<sub>x</sub>, and methane emissions.

The wide variety of emission sources in the oil and gas sector allow for a similarly wide variety of potential strategies to reduce emissions from these sources. Both WDEQ and USEPA have regulatory programs that limit emissions from the oil and gas sector, including but not limited to the WDEQ Oil and Gas Production Facilities Chapter 6, Section 2 Permitting Guidance (WDEQ 1997), USEPA New Source Performance Standards (e.g., Subpart OOOO, Subpart JJJJ, Subpart KKKK; USEPA 2012b; 40 CFR 60 [2011]) and USEPA off-road diesel engine standards (USEPA 2014c). State-specific oil and gas requirements are listed in Table 3-6.

**Table 3-6. WDEQ specific oil and gas regulations by source category for Campbell County, Wyoming.**

<b>Source Category</b>	<b>WDEQ Regulation for Campbell County</b>
Drill Rigs, Workover Rigs	Wyoming has no separate state restrictions for temporary Compression Ignition (CI) or Spark Ignition-Internal Combustion Engine. USEPA Non-road Mobile Tier Standards take precedence.
Well Completions	<b><u>Chapter 6 Section 2 (C6 S2) Oil and Gas (O&amp;G) Permitting Guidance</u></b> Wyoming has 4 area categories; 1) Concentrated Development Areas (CDA), 2) Upper Green River Basin (UGRB), 3) Jonah and Pinedale Anticline Development Area and Normally Pressured Lance (JPAD/NPL), and 4) Statewide refers to all facilities not located in CDA, UGRB or JPAD/NPL.  Green completions are required in the JPAD/NPL area and CDAs in Wyoming as of July 2014.
Pneumatic Controllers	<b><u>C6 S2 O&amp;G Permitting Guidance</u></b> Install low or no-bleed at all new facilities. Upon modification of facilities, new pneumatic controllers must be low/no-bleed and within 60 days of modification, existing controllers must be replaced with no/low-bleed. (Well site facilities only – not gas plants.)
Condensate & Crude Oil Tanks	<b><u>C6 S2 O&amp;G Permitting Guidance</u></b> 98% control of all new/modified tank emissions $\geq 10$ tons per year (tpy) volatile organic compounds (VOC) within 60 days of startup/modification.
Gas Processing Plants	Wyoming has adopted New Source Performance Standards Subpart KKK on leak detection and repair
Glycol Dehydrators	<b><u>C6 S2 O&amp;G Permitting Guidance</u></b> PAD Facilities – 98% control upon startup/modification.  SINGLE Well Facilities – 98% control within 60 days of startup/modification for VOC emissions $\geq 6$ tpy OR 98% control within 30 days of startup/modification for VOC emissions $\geq 8$ tpy
Minor Source Permitting	Emissions from minor sources must be approved through permitting applied through the Wyoming Air Quality Standards and Regulations <b><u>C6 S2(a)(i) O&amp;G Permitting Guidance</u></b> . For VOC emissions $\geq 8$ tpy from sources other than tanks, dehydrators, pneumatic controllers and pumps, water tanks, BACT is considered on case-by-case basis.



<b>Source Category</b>	<b>WDEQ Regulation for Campbell County</b>
Point Source Permitting Threshold	Wyoming has no de minimus permitting threshold outside of their <b>C6 S2(k) O&amp;G Permitting Guidance</b> exemptions; thus, all sources not waived by the Administrator are permitted and undergo BACT analysis.
Pneumatic Pump	<p><b>C6 S2 O&amp;G Permitting Guidance</b></p> <p>PAD Facilities – pneumatic pumps shall be controlled by at least 98% or the pump discharge streams shall be routed into a closed loop system at startup/modification.</p> <p>SINGLE Well Facilities – 98% control within 60 days of startup/modification for sites with combustion units installed OR solar, electric or air-driven pumps for sites without combustion units installed</p>

### Coal-Fired Power Plants

Seven coal-fired EGUs are located in Campbell County with a total output of slightly over 1,000 megawatts (MW) whose emissions and attributes were provided previously in Table 3-4 and Table 3-5. These EGUs are subjected to federal rules, such as the Title IV acid rain control program. The largest two coal-fired EGUs in Campbell County are the WYODAK (335–362 MW) and Dry Fork Station (385 MW) power plants located near Gillette. Although these two plants have comparable electricity output, the WYODAK has much higher NO<sub>x</sub> and SO<sub>2</sub> emissions (Table 3-4) because it was built about 35 years ago (1978), so it was not required to have current BACT controls as implemented for the Dry Fork Station, which is less than 10 years old (2007). The Neil Simpson One 21.8-MW EGU built in 1969 was closed in March 19, 2014, because it was too expensive to retrofit the facility to meet approved air quality standards.

### Other Sources

In addition to the sources listed above, other anthropogenic emission sources, such as on-road vehicles (heavy and light duty), off-road equipment (e.g., recreational, construction, agricultural, industrial), locomotives, other point sources, and other dispersed area sources may be controlled above and beyond existing levels in efforts to conform to regulatory requirements or improve air quality. Although on-road vehicle emissions are controlled by federal tailpipe and fuel standards, local officials can reduce emissions from vehicles by reducing activity. It is expected that state and federal agencies shall consult, coordinate, and collaborate with county agencies and stakeholders in all projects to control emissions from any source.

### **3.1.9 Campbell County Position Summary**

Based on the data compiled above, and the importance of resource extraction to the economy of Campbell County, it is the overall position of Campbell County to continue to encourage and support the current and future mineral development activities within the county.

It is Campbell County’s position that, upon review of the information provided, the mineral industry does not pose a risk to air quality in the region, based on current uses. If appropriate BMPs are applied, future concerns in regards to air quality within Campbell County will be mitigated.

Campbell County has concerns regarding potential future changes to threshold levels and the corresponding impacts to the operation of current and future resource extractions within the





county. It is Campbell County's intent to work with stakeholders and state and federal agencies in continuing to mitigate the impacts of future regulation changes on the mineral extraction industry.

Campbell County has some of the largest coal mining operations in the U.S. All of the mines are the open pit type, which means that coal is extracted at or near the surface. In addition, there are a number of coal-fired power plants in the region that generate electricity from the local coal mining production. Table 3-4 lists the 2011 EGU emissions by major facility and coal mining emissions by mine. Table 3-5 shows operating capacity of major EGUs in Campbell County and installed emission control equipment for regulating NO<sub>x</sub>, SO<sub>2</sub>, and PM emissions.

### 3.2 Soils

The soils of Campbell County provide the support for all natural resources. The protection of soils from wind and water erosion is considered a critical management goal for local, state, and federally managed lands. Soil conservation is crucial to sustaining a viable agricultural economy, wildlife populations, and high-quality water and air resources.

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) has mapped and conducted research to support detailed soil surveys for both northern and southern Campbell County, which is available online at the Web Soil Survey website (USDA NRCS 2021). The NRCS soil maps delineate lands, both public and private, occupied by different kinds of soil, each of which has a unique set of interrelated properties characteristic of the material from which it is formed, its environment, and its history (USDA NRCS 2014, 2021). Soil surveys are the base information source used for evaluating land use development and disturbance activities. Two hundred and thirteen unique map units have been mapped in Campbell County and each are described in the soil survey, along with information on their use, management, properties, and limitations. The soil survey mapping is a component of ecological site descriptions (ESDs) that land management agencies utilize in their decision and policy making processes (refer to Vegetation Section). The *Soil Survey of Campbell County, WY* (northern and southern parts [USDA NRCS 2004, 2007, and 2021]) is hereby incorporated by reference to the *Campbell County State and Federal Land Use Policy – 2021*.

The soil survey identifies soil properties that are used in making various land use or treatment decisions and identifies soil limitations on various land uses. Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding, others are shallow to bedrock, and some soils are too unstable to be used as a foundation for buildings or roads. A high-water table, for example, makes a soil poorly suited to basements or underground installations. Some soils of Campbell County are known to have physical limitations due to inclusions of clay in the soil profile. Those limitations include, but are not limited to, high shrink-swell rates, impermeability, difficult reclamation, and incompatibility with septic systems.

Although state and federal laws and regulations exist that address the management and protection of water, air, wildlife and fish (i.e., Storm Water Pollution Prevention Plans, Wyoming Air Quality Standards and Regulations, and the Endangered Species Act of 1973 [ESA]), there are no laws that pertain solely to soils.

### 3.2.1 Policy

Protection of soil quality and quantity in order to maintain the ecological diversity, optimal health and productivity of vegetation, as well as water quality.

### 3.2.2 Goals

- Conservation of soil resources on local, state, and federal lands in order to provide for the vegetative needs of the county.
- Improvement of quality of soil resources through the efficient management, development, and use of ecological site principles.
- Coordination, consultation, and cooperation with local, state, and federal agencies in the modification or disturbance of the soil resource and efforts to mitigate or reclaim impacts to soils.

### 3.2.3 Objectives

- *Use available ESDs developed by the USDA NRCS as a foundation for the inventory, evaluation, monitoring, and management of rangelands and forestlands.*
- *Use Campbell County Soil Survey for the orderly planning and development of the state and federal lands in Campbell County.*
- *Apply credible scientific data in decisions regarding soil resource restrictions and development.*
- *Ensure that the watersheds in Campbell County are managed to reduce soil erosion and associated sedimentation hazards.*
- *Support approved soil remediation efforts by local, state, and federal agencies.*
- *Support efforts of soil conservation by industry and agriculture interests.*
- *Coordinate with USDA NRCS and CCCD on land use development and disturbance activities.*
- *Review and comment on new and revised state and federal policies and decisions for applicability to soil resource issues in Campbell County.*
- *Cooperate, consult, and coordinate in studies, planning, and implementation activities related to soil resources by local, state, and federal agencies.*
- *Enhance natural resource education by providing information to urban and rural communities and legitimate media.*

## 3.3 Vegetation

Campbell County is characterized by sagebrush habitats in colder, intermountain areas (typically occurring at 4,000 to 9,500 feet above sea level), and prairie grasslands in warmer, low elevation areas (below 7,000 feet above sea level; Strategic Wildlife Action Plan [SWAP]; WGFD 2017a). These two habitat types compose 55% and 32% of the total area in Campbell County, respectively (Table 3-7). Sagebrush shrubland is characterized by a semi-desert climate, long winters (when much of the precipitation occurs as snow), hot and dry summers, and persistent winds (WGFD 2017a). Prairie grasslands in eastern Wyoming, the majority of which are characterized as either short or mixed-grass prairie, are characterized by fertile soils, high

summer precipitations, and a longer growing season compared to any other habitat type in Wyoming (WGFD 2017a), which results in high biomass productivity. All other habitat types, separately, represent less than 10% of the county area (Table 3-7, Figure 3-11). Overviews of the SWAP habitat types that are prominent in Campbell County are discussed in Appendix A.

**Table 3-7. Composition of habitat types within Campbell County, Wyoming.**

Habitat	Acres	% Composition
sagebrush shrublands	1,698,318.00	55.4
prairie grasslands	968,756.80	31.6
xeric and lower montane forests	105,942.40	3.5
excluded	105,439.60	3.4
riparian areas	82,512.27	2.7
wetlands	77,226.50	2.5
desert shrublands	28,251.23	0.9
aspen/deciduous forests	518.57	<0.1
montane/subalpine forests	335.81	<0.1
foothill shrublands	39.11	<0.1
mountain grasslands and alpine tundra	0.67	<0.1
cliff/canyon/cave/rock outcrop	0.46	<0.1
<b>Total</b>	<b>3,067,341.42</b>	<b>100</b>

Sums can differ from values shown due to rounding.

Surface ownership in Campbell County is primarily private, followed by state and federal ownership. Thus, it follows that the various habitat types in Campbell County are primarily located on private land (Table 3-8) and management decisions on private land strongly influence the condition and trend of these habitat types within the county. Campbell County desires to maintain viable plant communities that are productive for livestock operations, while maintaining habitat for wildlife populations.

**Table 3-8. Percent ownership of habitat types within Campbell County, Wyoming.\***

Habitat	Private Ownership	Federal Ownership	State Ownership
sagebrush shrublands	81%	13%	6%
prairie grasslands	83%	11%	6%
xeric and lower montane forests	68%	25%	7%
excluded	89%	7%	4%
riparian areas	89%	3%	8%
wetlands	92%	3%	5%
desert shrublands	78%	18%	4%
aspen/deciduous forests	96%	<1%	4%
montane/subalpine forests	6%	94%	0%
foothill shrublands	70%	21%	9%
mountain grasslands and alpine tundra	100%	0%	0%
cliff/canyon/cave/rock outcrop	0%	100%	0%
<b>Total</b>	<b>82%</b>	<b>12%</b>	<b>6%</b>

\*Percent calculations are based on data presented in Figure 2-1 and Figure 3-10.



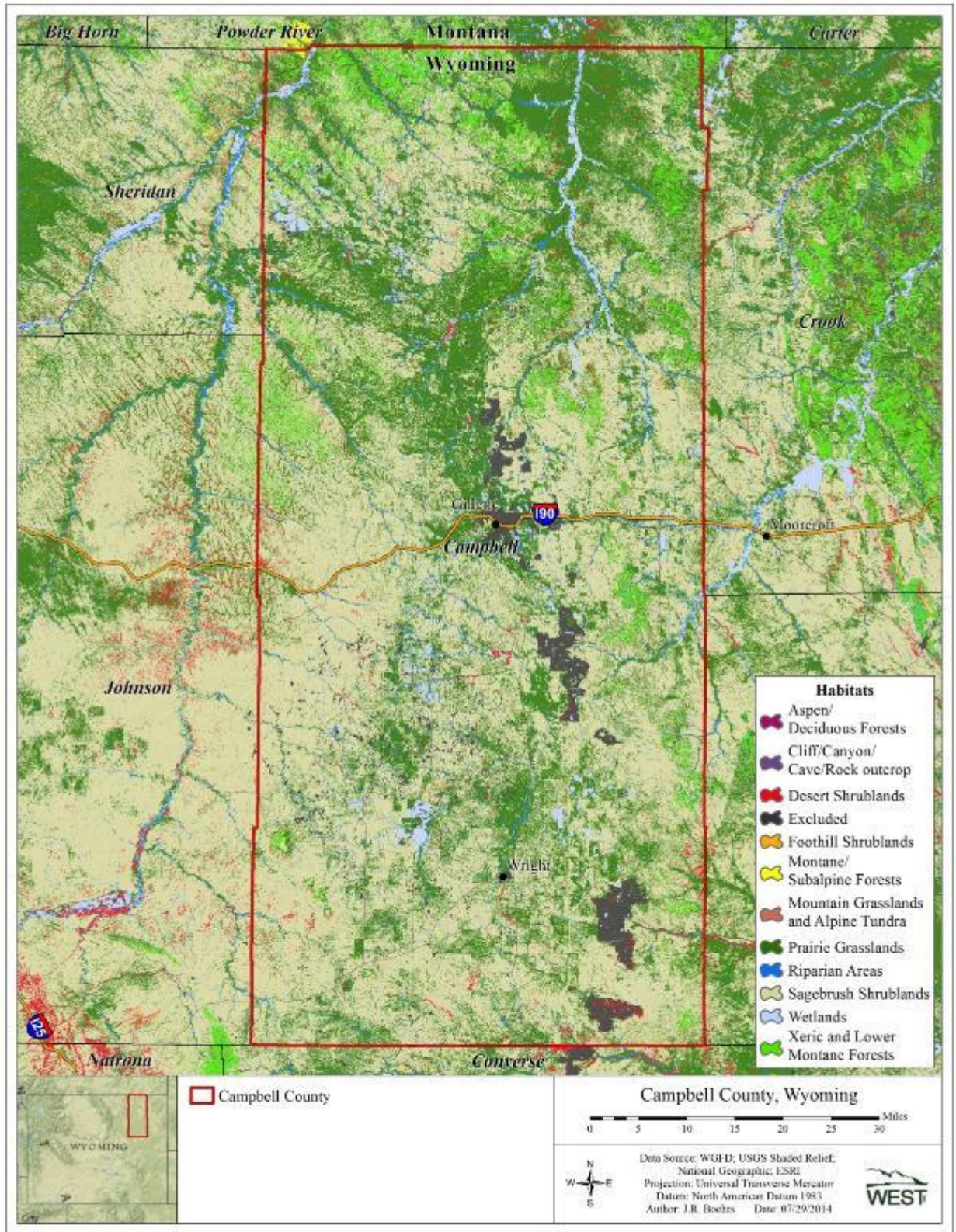


Figure 3-11. Habitat types in Campbell County, Wyoming.

History shows plant communities can be changed by disturbances such as wildfire, drought, grazing management, recreational use, and other activities (BLM 2008). The plant communities within Campbell County evolved with some level of disturbance. Disturbance levels or type of disturbance can alter various processes within the ecosystem that result in changes to the plant community (Pimm 1986). Plant community conversion results in changes to vegetative structure and composition, which can lead to landscape fragmentation, increased susceptibility to invasive species, negative impacts to shrubland- and grassland- adapted wildlife species, reduced productivity and forage value, and in turn threaten ecosystem functions and structure (Smith and Enloe 2006, Knight 1994, Connelly et al. 2003, Bradley et al. 2010). No specific data are available on the effects of disturbances (e.g., wildfire suppression, drought, and grazing management) on the ecosystem processes in Campbell County, but it can be assumed that there has been some alteration to the native landscape during the last century.

The vegetation of Campbell County includes various grasses, shrubs, and trees that represent both native and introduced (from other countries or parts of the U.S.) species. The maintenance of a perennial grass cover provides protection from wind and water erosion, as well as feed and cover for grazing animals and wildlife. Shrubs are an important component of the rangelands in Campbell County; however, the county respects the management style of fewer shrubs on private rangelands. Vegetation management must include a multiple use base in the county, which reflects the local custom and culture. Coniferous and deciduous trees are tied to specific geographic and ecological sites within Campbell County. Cottonwood trees once predominated in riparian areas of the county only to see a decline in the last 20 years due to insects and drought. Restoration efforts could include re-establishment of shrub communities on rangelands and cottonwood trees in riparian areas, but with local support. Successful reclamation of vegetative rangeland communities is supported by Campbell County.

Any recovery planning efforts for sensitive, threatened, and endangered plant species shall evaluate, mitigate, and support the county's custom, culture, and economic viability.

### 3.3.1 Policy

Maintain or improve vegetation communities in order to reduce soil erosion, maintain the ecological diversity, optimize health and productivity and provide forage and cover for livestock, wildlife, and bird populations.

### 3.3.2 Goals

- Conservation and cooperative management of vegetative communities on state and federal lands. Cooperation with local, state, and federal agencies regarding vegetation monitoring and assessment. Cooperative management of rangeland, forest land, and crop land vegetation treatments.

### 3.3.3 Objectives

- *Provide adequate notice to Campbell County residents regarding any proposed state or federal action relating to the vegetative resource of Campbell County.*
- *Utilize multiple use management concepts in managing the vegetative resources on state and federal lands in Campbell County.*



- *State and federal agencies shall cooperatively manage vegetative resources on the state and federal lands with consideration of adjoining private lands.*
- *Use scientifically accepted ecological site descriptions, including state and transition models for vegetative management.*
- *Support of locally driven efforts to identify, modify, and manage the vegetative resources for desired plant communities.*

Federal agencies are appropriated funds by the U.S. Congress to support multiple use on lands within Campbell County as guided primarily by the FLPMA. Vegetative resources on federal lands within Campbell County provide forage for livestock and habitat for wildlife. Some other uses include mineral (coal, oil, natural gas, coal bed natural gas) extraction, research, and recreation. To balance and evaluate the various uses of federal lands, the BLM prepares an RMP and the USFS prepares Land and Resource Management Plans (LRMPs) that contain specific decisions designed to manage the variety of uses in a way that is complementary to one another and attempts to resolve conflicts where it occurs. These planning documents are updated routinely or as needed.

The BLM recognizes the importance of vegetation management and the complexities involved with multiple use management. Therefore, the BLM prepared the Integrated Vegetation Management Handbook (BLM 2008) with an approach that fosters interdisciplinary and collaborative process to implement actions that will improve the biological diversity and ecosystem function to promote and maintain native plant communities that are resilient to disturbance and invasive species. This handbook presents several goals, including:

“Decisions concerning the desired mix of plant communities and uses will be made at the local level, through the land-use planning and implementation process, with involvement of local communities, stakeholders, other landowners, tribes and other agencies. This approach will help avoid duplication of efforts, ensure consistency and improve public acceptance of vegetation management activities.”

The USFS Forest Service Manual (FSM) 2000 identified the management of range vegetation to meet an assortment of USFS objectives (USFS 2005), including:

“To manage range vegetation to protect basic soil and water resources, provide for ecological diversity, improve or maintain environmental quality, and meet public needs for interrelated resource uses.”;

“To integrate management of range vegetation with other resource programs to achieve multiple use objectives contained in Forest land and resource management plans.”; and

“To provide for livestock forage, wildlife food and habitat, outdoor recreation, and other resource values dependent on range vegetation.”

Specific to national grasslands, FSM 2000 identified the following objectives:

“To promote the development of grassland agriculture and sustained yield management of the soil, water, forage, fish and wildlife, recreation, and timber resources.”; and

“To demonstrate sound and practical principles of land use to favorably influence nearby areas and economies.”

ESDs define a distinctive kind of land with specific physical characteristics that differ from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its ability to respond to management actions and natural disturbances. ESDs are used to assist in management, research, and evaluation as the system divides the landscape into basic units for study. These sites are defined using resources and concepts such as climate, soils, and state-and-transition models to characterize the area. ESDs allow for goals and expectations for land to differ within a landscape that can be specified with some precision the difference expectations.

Uses of ESDs include:

- Assess the risk of persistent degradation (undesirable change) and take proactive measures to avoid it.
- Specify constraints to desired ecosystem change, estimate their probability of occurrence and devise contingencies.
- Design and interpret monitoring based on expected responses to management or climate changes.

Reseeding, brush management, and range renovation are dependent on the soil and climate of a given site. Soil survey information is an important part of ESD data. Soils should always be included in management decisions.

The BLM, USFS, and USDA NRCS agreed in 2010 to utilize ecological sites for the common framework in their land management practices and policies (BLM et al. 2010). The common objective is to utilize science-based technical processes to sustain and enhance natural resources and the environment. In the past, each agency utilized different methods to stratify landscapes, but this approach results in a standardized method to define, delineate, and describe terrestrial ecological sites. Since the adoption of using ecological sites, the *Interagency Ecological Site Handbook for Rangelands* has been released (January 2013; BLM et al. 2013).

### 3.4 Visual

Campbell County enjoys a variety of visual resources, ranging from prairie landscapes and scenic juniper- and cedar-dotted hillsides to views of the Big Horn Mountains, Powder River Basin, and the Pumpkin Buttes. With the advent of the homesteaders introducing livestock and farming to the viewshed, to the development of its rich mineral resources, the county’s visual resource has continually changed to accommodate the infrastructure needed to support the industries associated with the economy of the county.

Campbell County has historically embraced new industries and infrastructures in order to enhance the county's economy and improve the lives of its citizens. These technologies, such as wind turbines, cell phone towers, and radio antennas, bring new aesthetic challenges along with the infrastructure needed to support them, such as transmission lines.

Campbell County recognizes that federal agencies are required to consider scenic values when it comes to allowing development and other actions on federal lands within the county.

Federal land management agencies conduct assessments of visual impacts in determining how an area should be managed in accordance with Visual Resource Management (VRM) class objectives, with the goal of protecting the visual resource while not burdening authorized land uses and maintaining economic stability. VRM classes define the "amount of noticeability" a project can have in a specified area. The BLM considers VRM objectives before authorizing land uses that may affect the visual character of the landscape. BLM VRMs are classified as Class 1-most natural, Class 2-want it to be not noticeable to the casual observer, Class 3-can be noticeable, and Class 4-can be substantially noticeable.

Campbell County supports the evaluation and appropriate protection of visual resources, particularly those with tourism/recreational value, to the extent that such management accommodates and recognizes custom and culture, or economic development of the county. Recovery of mineral and natural resources and other properly managed multiple-uses should be a central objective, in areas with a designated scenic value.

### 3.4.1 Policy

The utilization of additional visual resource protection only upon determination that the visual resource has not already been compromised.

### 3.4.2 Goals

- Continuation of existing land uses.
- Economic projects and activities are not unduly restricted by visual resource protections. Communication sites recognized as important to the health, safety, and welfare of Campbell County citizens.

### 3.4.3 Objectives

- *Evaluate economic viability of projects before implementation of visual resource protection requirements.*
- *Visual resource protection requirements shall not unnecessarily or inappropriately intrude on existing land uses.*
- *Visual resource designations should not adversely affect private property rights or private land uses.*
- *State and federal agency notification and coordination with Campbell County as part of the review/evaluation of visual resources.*



### 3.5 Water

The Powder/Tongue River Basin and Northeast Wyoming River Basin make up the drainage basins in Campbell County (Figure 3-12). These basins are divided into seven watersheds, including the Upper Powder, Middle Powder, Little Powder, and Upper Little Missouri in the Powder/Tongue River Basin, and the Antelope, Upper Cheyenne, and Upper Belle Fourche in the Northeast Wyoming River Basin (Figure 3-13; Table 3-9). The county is headwaters for the Belle Fourche River and Little Powder River. Many other named and unnamed creeks and streams flow within the county (Table 3-10; Figure 3-14). No major reservoirs exist within the county; however, a number of smaller water storage facilities occur.

**Table 3-9. Watersheds within Campbell County, Wyoming.**

<b>Watershed Name</b>	<b>Acres</b>	<b>Percent</b>
Little Powder	866,705.81	28.3
Upper Belle Fourche	844,803.88	27.5
Upper Powder	675,243.8	22.0
Antelope	240,686.2	7.8
Upper Cheyenne	208,847.3	6.8
Middle Powder	192,252.5	6.3
Upper Little Missouri	39,085.9	1.3
<b>Total</b>	<b>3,067,625.43</b>	<b>100</b>

**Table 3-10. Length of rivers, streams, and creeks within Campbell County, Wyoming.**

<b>River, Stream, or Creek Name</b>	<b>Length in Miles</b>
Belle Fourche River	66.86
Little Powder River	55.27
Donkey Creek	27.53
Caballo Creek	26.55
Horse Creek	23.42
Wildcat Creek	22.25
Wild Horse Creek	22.22
Porcupine Creek	21.06
Cottonwood Creek	19.23
Bitter Creek	18.76
Little Thunder Creek	18.00
L X Bar Creek	17.04
Dead Horse Creek	17.03
Rawhide Creek	15.79
Hoe Creek	15.47
Mud Spring Creek	14.76
Middle Prong Wild Horse Creek	13.62
Bone Pile Creek	13.41
Beaver Creek	13.36
Bates Creek	12.98
Black Thunder Creek	12.28
Four Horse Creek	10.78
Fortification Creek	9.94
Middle Prong Pumpkin Creek	9.69
Powder River	8.41
Willow Creek	7.95
<b>Total</b>	<b>532.05</b>

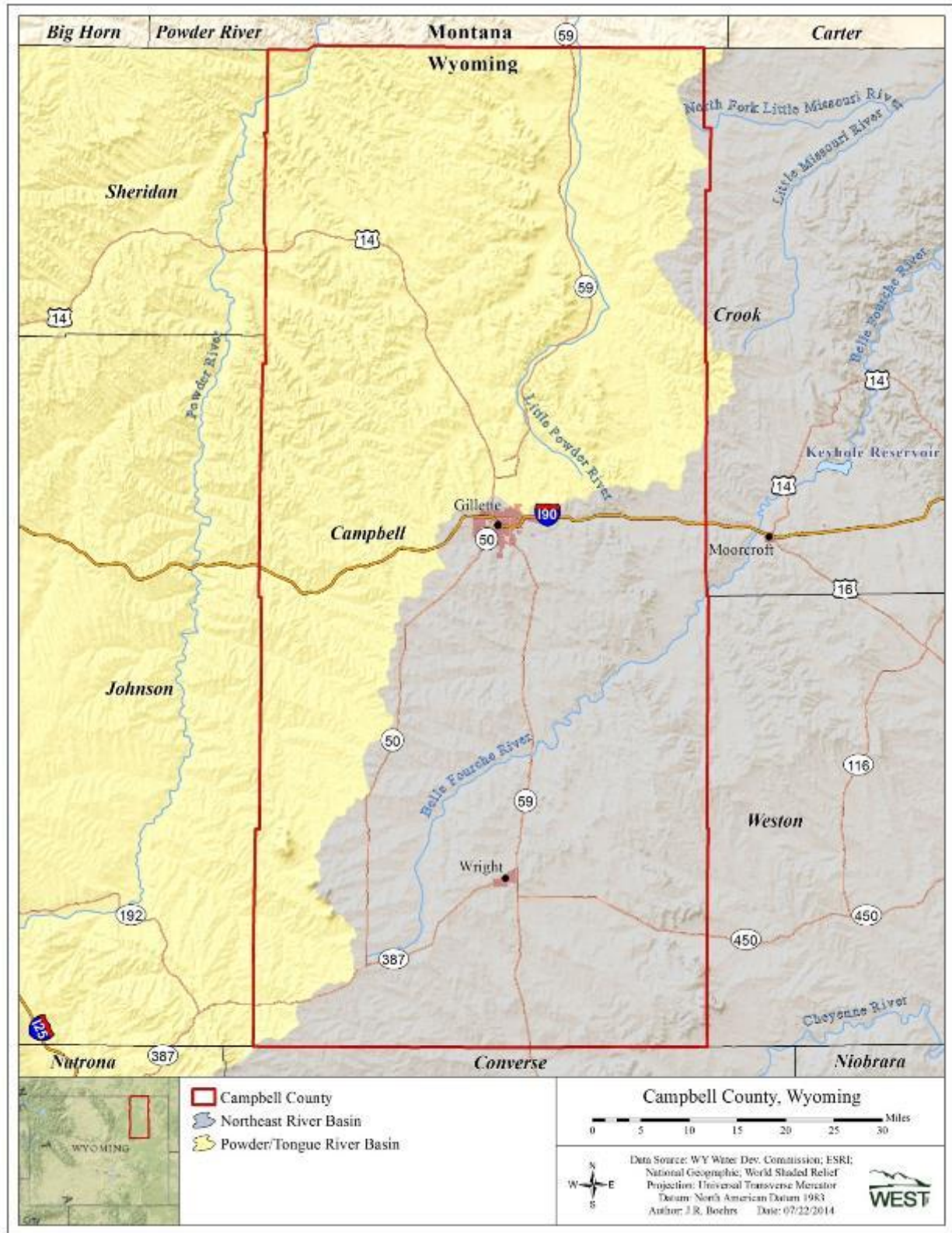


Figure 3-12. Campbell County water basins.



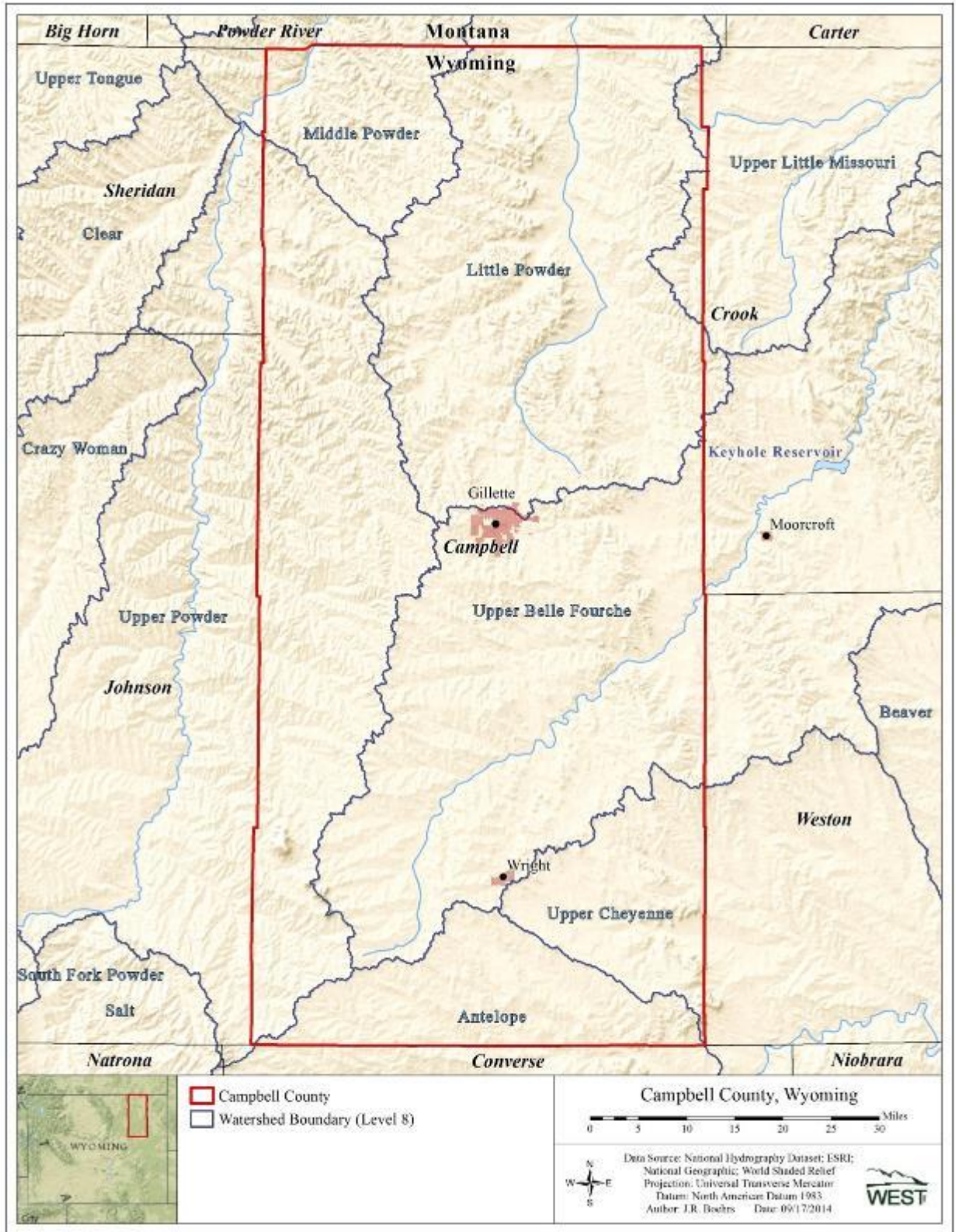


Figure 3-13. Campbell County watersheds.



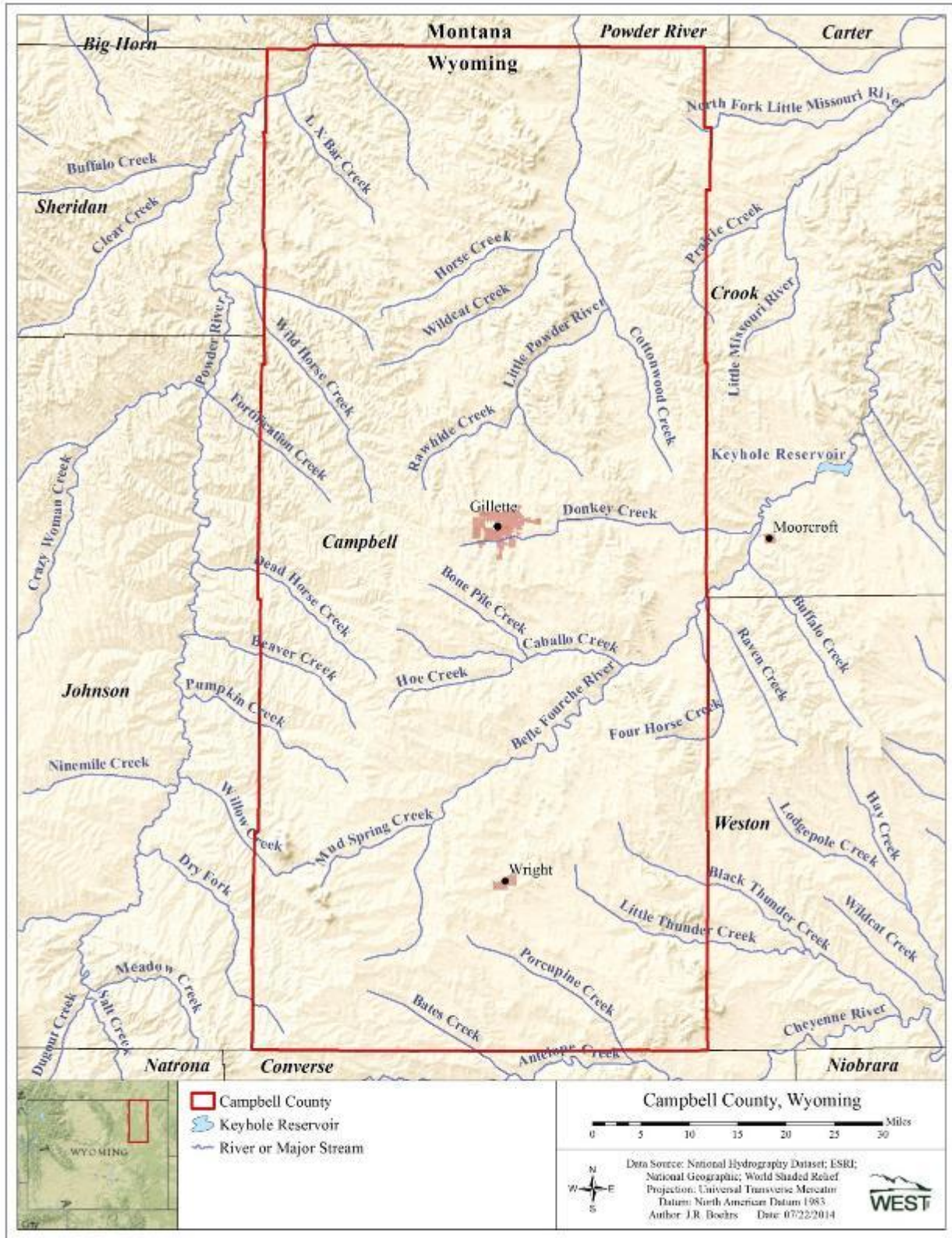


Figure 3-14. Campbell County rivers and streams.

Water has historical importance in the West and in Campbell County for agricultural, domestic, and industrial needs. Native American tribes used natural water courses as landmarks and often as routes of travel. Early settlements and homesteads were located in close proximity to water sources. Current large water users in Campbell County include the municipalities of Gillette and Wright, mining, oil and gas, agriculture, and rural subdivisions.

Agriculture and railroads, the predominant early industries in Campbell County, depended on water for their existence. Farming successfully utilized irrigation early in Wyoming's history. Ranchers utilized irrigated cropland and dryland farming to provide winter feed and summer grazing to sustain ranching enterprises. Fields are irrigated for livestock forage production including alfalfa, grass hay, and pasture grass (Wyoming Water Development Commission [WWDC] 2002). Wyoming Agricultural Statistics provide historical crop data. Water waste associated with irrigation practices is a concern due to water loss from ditches, infrastructure leakage, and field waste; however, much of the water is returned to the downstream system. Agriculture is the largest source of consumptive water use in the Powder/Tongue River Basin (surface 184,000 acre-feet/year; ground 200 acre-feet/year) and Northeast Wyoming River Basin (surface 69,000 acre-feet/year; ground 17,000 acre-feet per year; Taboga et al. 2019).

Municipal and domestic water uses include public water supply systems and individual well and small water systems. Current high users of Campbell County's water resources include the municipalities of Gillette and Wright (WWDC 2002). Municipal water use is fairly low in the Powder/Tongue River Basin (surface 2,000 acre-feet/year; ground 500 acre-feet/year) and Northeast Wyoming River Basin (ground 9,100 acre-feet/year); domestic use is slightly higher in the Powder/Tongue River Basin (4,400 acre-feet/year) compared to the Northeast Wyoming River Basin (3,600 acre-feet/year).

Industrial water use includes electric power generation, coal mining, conventional oil and gas production, coalbed methane production, and oil refining. Industrial water use is primarily from groundwater. A small amount of surface water is used by the Wyodak Plant (east of Gillette). Industrial water use is relatively high for conventional oil and gas, and coalbed methane activities. The Powder/Tongue River Basin reported groundwater use at 68,000 acre-feet/year, while the Northeast Wyoming River Basin reported 46,000 acre-feet (additional 4,700 acre-feet/year for miscellaneous industrial use; WWDC 2002). These are the most current available water use values according to WWDC; however, these data may not reflect the decline in industrial activities since 2002 (See Chapter 4 - *Mineral Resources* for further details).

Wyoming surface and groundwater law is rooted in the doctrine of prior appropriation, which generally establishes that the first party to put water to a meaningful use has the first right to the water and sets priority as the mechanism for regulation of water rights. The state will not allow a user to waste state water. An applicant may not appropriate the maximum amount of water allowed by law unless that amount can be put to beneficial use. If a user fails to use water or wastes the water, the state may terminate the user's right to use that portion of state's water. Stock water and domestic drinking water uses have consistently had preferred status in Wyoming law. A full description on Wyoming water law can be found in *A History of Wyoming Water Law, Water Rights, and Water Development* (Cooper 2004) and *Wyoming Water Law – A Summary* (Jacobs et al. 2003). These documents provide the foundation for Wyoming water

rights. Additional state surface and groundwater regulations and instructions can be found at the Wyoming State Engineer’s Office ([WSEO] 2014).

Issues related to surface and groundwater include both quantity and quality. Quantity is generally regulated by the WSEO. Wyoming has been segregated into four water divisions. Campbell County is fully contained within Water Division 2: Sheridan. Water quality is regulated by the WDEQ. The WDEQ – Water Quality Division includes the Watershed Management Section and is divided into seven closely interrelated programs, including Surface Water Standards, Watershed Monitoring, Total Maximum Daily Load (TMDL) Development, Nonpoint Source Pollution Planning and Grants, Water Quality Assessment, Section 401 Certification, and Quality Assurance/Quality Control.

The USEPA believes Water Quality Standards are the foundation of the water quality-based pollution control program mandated by the Clean Water Act of 1972 (CWA). Water Quality Standards define the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions such as anti-degradation policies to protect waterbodies from pollutants.

The WDEQ has programs in place to manage surface water quality. Wyoming has four surface water classes and uses designations to identify Wyoming waters: Class 1 – Outstanding waters; Class 2 – Fisheries and drinking water; Class 3 – Aquatic life other than fish; Class 4 – Agriculture, industrial, recreation, and wildlife. Each surface water class is provided protection based on the type of the water class. The objectives of the Wyoming water pollution control program are designed to serve the interests of the state and achieve the related goals, objectives, and policies of the CWA. To achieve these objectives, water monitoring throughout the state and specifically in areas with coal-bed methane development have been instituted to track surface water quality and identify potentially impaired waters. Waters identified as impaired on WDEQ’s 2020 – Wyoming Water Quality Assessment and Impaired Waters List in Campbell County include Donkey Creek, Stonepile Creek, Gillette Fishing Lake, and Little Powder River (Integrated 305(b) and 303(d) Report; WDEQ 2020) (Table 3-11)

**Table 3-11. Surface water quality classifications on waters within Campbell County, WY.**

Watershed	Stream	Classification	IR Category	Cause of Impairment
Little Powder River	Little Powder River	2AB	5	Fecal Coliform
Upper Belle Fourche	Donkey Creek	3B	4A	Fecal Coliform
	Stonepile Creek	3B		

The Environmental Protection Agency (EPA) also designates waterways into Integrated Reporting (IR) Categories, which are calculated based on water quality data entered into the





system throughout the sampling seasons. Both Donkey and Stonepile Creeks have been designated as IR Category 4A, which indicates that “one or more designated uses are impaired or threatened but establishment of a Total Maximum Daily Load (TMDL) is not required because a state developed TMDL has been approved by EPA.” TMDLs were completed in August 2013 for both waterways in the Upper Belle Fourche watershed. An IR Category 5 is defined as “available data and/or information indicating that at least one designated use is not being supported or is threatened, and a TMDL is needed” for the waterway. A watershed restoration plan was completed for the Little Powder River watershed in 2019 and was accepted as the TMDL alternative by the EPA on June 1, 2021.

### 3.5.1 Policy

To maintain and protect water resources of sufficient quality and quantity to support agriculture, wildlife, range, industry, and citizen needs in the present and into the future.

### 3.5.2 Goals

- Employment of the prior appropriation doctrine as adopted by the State of Wyoming. Water resource development that assures future growth and protection of Wyoming water rights within agreements with neighboring states. Management and conservation of water in a manner which benefits the county. Improvement of quality and quantity of usable water through the efficient management, development, and use of water resources. Continued agricultural and industrial viability as part of the custom and culture and beneficial impacts on state and federal lands.
- Wetland and water supply issues regulated and resolved at the local level.
- Coordinated approach when establishing riparian management plans and use of BMPs.

### 3.5.3 Objectives

- *Support the appropriation and utilization of water rights currently provided under Wyoming law for beneficial use as the most effective means for providing water resources for agricultural, municipal, industrial, and domestic purposes.*
- *Monitor water policy, water law, water use, water development opportunities, and changes in regulations.*
- *Campbell County opposes the federal control or nationalization of Wyoming’s water resources or rights.*
- *Support protection of private rights and interests in water development by the WSEO on state and federal land.*
- *Protect private property rights during water development on state and federal lands.*
- *Water rights desired by the federal government must be obtained through the WSEO under the laws of the State of Wyoming.*
- *Notify owners of existing water rights of any attempt to negate and or acquire that water right and not coerce the existing owner in any manner to relinquish that right; and*
- *Recognize valid water rights.*
- *Review new and revised state and federal policies and decisions for applicability to water issues in Campbell County and provide appropriate comments.*
- *Use credible scientific data in decisions regarding water resource restrictions and*

*development.*

- *Ensure productive watersheds are maintained to reduce soil erosion.*
- *Support locally-led watershed based planning.*
- *Support studies of flow and water quality on local watersheds.*
- *Review and provide comments to the WDEQ*
- *Promote public education by providing information to urban and rural communities and legitimate media sources.*
- *Support water conservation and precipitation gathering by industry, agriculture, and the public.*
- *Support government-approved stream and lake remediation efforts by local and state agencies.*
- *Support recycling of water, use of appropriately treated reclaimed water, and use of alternative water sources to reduce use of potable water.*

Water rights are provided under state law when the water has been obtained by beneficial applications of Wyoming's water law. Preferred water uses shall have preference rights in the following order:

- Water for drinking purposes for both man and beast;
- Water for municipal purposes;
- Water for the use of steam engines and for general railway use, water for culinary, laundry, bathing, refrigerating (including the manufacture of ice), for steam and hot water heating plants, and steam power plants; and
- Industrial purposes.

Interstate compacts controlling the development and use of water in Campbell County include the Belle Fourche River Compact of 1943 and the Yellowstone River Compact of 1950.

The Belle Fourche River Compact of 1943 divides the water between Wyoming and South Dakota. The compact recognizes all rights in Wyoming existing as of the date of the compact and permits Wyoming unlimited use for stock water reservoirs not exceeding 20 acre-feet in capacity. Wyoming is allowed to deplete the flow of the Belle Fourche River under the conditions existing as of the date of the compact by an additional 10%. No reservoir constructed subsequent to the date of the compact solely to utilize the water allocated to Wyoming shall have a capacity greater than 1,000 acre-feet.

The Yellowstone River Compact of 1950 controls the development and use of water from the Tongue River, Powder River, and Little Powder River. This compact divides the unappropriated flow of the Tongue River, Powder River, and Little Powder River, after needs for supplemental supply for existing rights are met, as follows:

Tongue River: 40% to Wyoming, 60% to Montana

Powder River and Little Powder River: 42% to Wyoming, 58% to Montana



Article X of the Compact stipulates that no water shall be diverted from the Yellowstone River Basin without the unanimous consent of the three signatory states, Wyoming, Montana, and North Dakota.

Coordination with the WSEO should be maintained to ensure water rights and resource restrictions are understood and followed.

The WDEQ regulations (Chapter 1 – Section 35 Credible Data) addressed the development of scientifically valid chemical, physical, and biological monitoring data. The WDEQ further stipulates that data shall be collected using accepted referenced laboratory and field methods employed by specialists with relevant experience. All data collection shall include and document measures to monitor quality assurance throughout the duration of a project. Data used to inform water resource decisions should meet these standards.

Water rights in Wyoming are attached to the land by legal land description (quarter-quarter, section, township and range; State of Wyoming 2000). Anyone seeking water rights information must provide legal land description information for the parcel of interest.

The State Engineer supervises the waters of the state, authorized under W.S. 41-3-909. A permit is required any time a person intends to acquire the right to beneficial use of the state’s surface or groundwater. An application must be completed, and a permit must be obtained from the state prior to performing work which will involve state water. The state provides information and instruction to apply/obtain, adjudicate, and change water use.

The State Engineer has set standards for water well construction to ensure appropriate use and protection of the state’s groundwater resources.

Water resources and development potential have been drafted for the City of Gillette (Water Resources Data System Library 2014). The “Master Plans” apply scientific research to identify key water sources and development potential under the existing water right. In 2002, the WWDC published river basin water plans for the Powder/Tongue River Basin and Northeast Wyoming River Basin (WWDC 2014). These plans detail the existing water resources, use, projections, and potential planning for individual basins. Development should follow guidelines provided in these documents. Continued efforts to update and review the “Master Plan” are supported. Developments which are feasible under the “Master Plan” should also be supported or modified to achieve desired objectives.

Conservation efforts should be included as part of the county, state and federal planning. There are numerous programs run by various agencies and organizations that are potential sources of assistance to water users. Local Conservation Districts, Ducks Unlimited, Trout Unlimited, Cooperative Extension, Wyoming Association of Conservation Districts, Wyoming Association of Rural Water Systems, Wyoming Department of Agriculture (WDA), WDEQ, Wyoming Game and Fish Department (WGFD), WSEO, WWDC, BLM, USACE, NRCS, Bureau of Reclamation, USFS, USFWS, and the US Geological Survey (USGS) are all potential sources of information, technical assistance, and cost-share funding opportunities. A full description of programs and

agencies/organizations and contact information can be found online (WWDC 2009). The water management and conservation assistance programs directory provides an overview of local, state, and federal programs.

Conservation planning should ensure project designs include definition of measurable project objectives by project stakeholders. To meet these objectives, baseline conditions must be defined and continued monitoring must be conducted. Following procedures and design plans outlined in scientific literature are recommended to increase project success (Shields et al. 2003). State and federal agencies have published manuals and guidance to assist project planning.

In 2014, the WDEQ published a Stream and Lakeshore Restoration BMP Manual (WDEQ 2014b). The manual outlined 16 BMPs that should be considered when a restoration project is planned.

State standards have been developed for treated water. These standards can be found on the WDEQ regulations website. Additionally, research that identifies potential methods to treat wastewater has been and is in the process of being completed by the University of Wyoming (UW) –Water Resource Program (UW 2014a). Research opportunities should be considered to help increase technology related to alternative water sources. Potential alternative water sources may include treated effluent, rainwater collected on site, condensate from cooling, graywater, storm water, sump pump discharge, or saline sources.

Coordinated efforts to implement state and federal methods should be instituted during project planning. The Partners of Fish and Wildlife provided an example of coordination between state resources and land owners by establishing a management plan implemented along the Powder River that included over 70,000 acres of continuous land and protected 13 miles of riparian habitat. Riparian management projects that fence drainage and wetland features may improve wildlife habitat and water quality through a reduction of soil erosion and improving vegetative cover along stream banks (USFWS 2014a).

In addition to riparian management, wetlands should also be considered during development and conservation efforts. Wetlands are an important feature in the Wyoming landscape. In arid climates such as Wyoming, wetland areas provide habitat for resident and migratory wildlife species. Wetlands are utilized by over 75% of all wildlife species (USFWS 2014b). Additional wetland information is found in the Wildlife Section (Section 3.9).

Consultation with local groups during the NEPA process help ensure local consideration and requirements are implemented in conjunction with proposed developments. This can be achieved through the request to be a Cooperating Agency during the NEPA process.

The WDEQ has set surface and groundwater standards that state waters shall not contain biological, hazardous, toxic or potentially toxic, materials or substances in concentrations or amounts that exceed maximum allowable concentrations. The full surface and groundwater standards can be found in Chapter 1 (surface) and Chapter 8 (ground) of the WDEQ regulations (WDEQ 2005, 2013). These standards should be adhered to throughout a development process.

Monitoring plans should be reviewed by Campbell County to ensure standards are met before construction takes place. Furthermore, sampling records and annual reports should be provided to Campbell County for review.

In 2014, the WDEQ published *Wyoming's Methods for Determining Surface Water Quality Condition and TMDL Prioritization* (WDEQ 2014c). This document outlines standardized methods for assessing surface water. Utilizing a standard approach across all developments will help ensure results are accurate and comparable. Study and sampling design should also incorporate methods to assess water conditions across multiple components associated with a development project, as previous studies have suggested potential differences among project components (Sharma et al. 2008, Reddy et al. 2009). The UW – Water Research Program has published research related to water, specifically coal bed methane projects (UW 2014b). These publications are updated as they are completed, so should be referenced for the most up to date technologies and practices.

Monitoring of 303(d) listed waterways within Campbell County (e.g., Donkey Creek, Stonepile Creek, and Little Powder River) has been delegated to the Campbell County Conservation District (CCCD). The WDEQ provides grant funding for CCCD to conduct these monitoring efforts and provides technical assistance as needed throughout the sampling season. CCCD is a collaborative partner with the WDEQ in order to provide credible water quality data while serving as a local agency contact for landowners and other stakeholders within the County. Ambient monitoring of surface water quality has occurred state-wide and, in a network specifically identified for coal bed methane (CBM) development. Wyoming participated in an Environmental Monitoring and Assessment Program that produced a Scientific Investigations Report (Peterson et al. 2007). The report compared Wyoming streams with other western state streams. Additionally, to better estimate the quality of Wyoming's surface waters, WDEQ added probability monitoring to the surface water monitoring program in 2004. Results of this monitoring have been reported by WDEQ's Watershed Monitoring Program (WMP).

The WDEQ created the WMP in 1992. Data inventoried by this program are used to define a range of expected conditions when evaluating the surface water quality of other Wyoming streams of unknown condition. The 2010 – 2019 Watershed Monitoring Program Water Quality Strategy lists 10 program objectives that include: determining water quality standard attainment, identifying impaired waters, identifying causes and sources of impairment, assessing water quality status and trends at multiple scales, evaluating watershed program effectiveness, responding to complaints and emergencies, supporting the development and implementation of water quality standards, providing data and technical support toward the development and evaluation of TMDLs, providing data and technical support toward the implementation and evaluation of nonpoint source restoration projects, and supporting Wyoming Point Source Discharge Elimination System permitting and compliance.

Campbell County mining companies have extensive ground and surface water monitoring data in annual reports and permits located at the WDEQ/Land Quality Division offices.

Additional watershed management resources are available online from the USEPA (2011). This resource provides a range of information to help manage and improve watersheds on a local and regional scale.

### 3.6 Weeds, Pests, and Invasive Species

The Wyoming Board of Agriculture, in conjunction with the Wyoming Weed and Pest Council (WWPC), determine “Designated Noxious Weeds” (W.S. 11-5-102(a)(xi)) and “Designated Pests” (W.S. 11-5-102 (a)(xii)). These listings provide statewide legal authority to regulate and manage these species. The current list (2019) of county and state noxious weeds and pests is included in Appendix A, along with descriptions of current weed and pest problems in Campbell County.

The terms “noxious weed” and “invasive” are often used interchangeably. An “invasive” species, also called “introduced” or “exotic”, is any nonnative species that significantly modifies or disrupts the ecosystems it colonizes. A “noxious weed” is a legal definition bestowed by a governmental authority as injurious to crops, natural habitats, ecosystems, humans and/or livestock (W.S. 11-5-102(a)(viii), Wyoming Weed and Pest Council 2019). Most noxious weeds are introduced species that are brought into an ecosystem either on purpose or by accident. Typically, they grow very aggressively and multiply quickly without natural controls. Noxious and invasive weeds contribute to the loss of rangeland productivity, increased soil erosion, reduced native species diversity, and loss of wildlife habitat and, in some instances, are hazardous to human and animal health and welfare (Federal Noxious Weed Act of 1974, P.L. 93-629 [1975]). Principal vectors for noxious and invasive weed species expansion include waterways, roads, and animals. Control of noxious and invasive weeds requires federal, state, county, and private interests to work together.

Campbell County citizens have a custom and culture of controlling noxious weeds and pests in order to maintain quality and productivity of the county’s natural resources and aesthetic value of its natural scenery. Early homesteaders and landowners were concerned with the invasion of noxious weeds and pests, and current landowners are actively involved in efforts to manage, prevent, and eradicate noxious weeds and pests.

The Campbell County Weed and Pest District (CCWPD) was established under the Wyoming Weed and Pest Control Act in 1973 (W.S. 11-5-101 et seq.). The early detection and rapid response (EDRR) committee was established in 2007. The CCWPD and EDRR work together to implement an effective program for the prevention, containment, and management of noxious weeds and pests on all land within the county.

At the federal level, the NRCS aids in preventing the introduction of invasive species, managing existing invasive species, and minimizing economic, ecological, and human health impacts that invasive species may cause. Their role includes following and supporting all tribal, state, and local laws regarding invasive species in the course of giving technical and financial assistance. The USDA, through the Animal and Plant Health Inspection Service (APHIS), maintains a Federal Noxious Weed List and helps to safeguard U.S. agriculture and natural resources against significant pests (USDA APHIS 2014).

The control, prevention, and elimination of noxious weeds and pests are important to Campbell County as farming and ranching activities occur on approximately 95.5% of the lands within the county (USDA National Agricultural Statistics Service [NASS] 2017). The invasion and spread of noxious weeds and pests can have a detrimental effect on ranching, farming, haying, and livestock production. It is important that noxious weeds are controlled so grains produced throughout Campbell County provide the cleanest and most wholesome food supply possible.

Noxious weeds pose a threat to native plant and wildlife species. They often invade and colonize an area after disturbance activities that may be associated with energy development, such as new well sites, pipelines, roads, and reservoirs. Energy companies are required by federal agencies to monitor and implement noxious weed prevention and management programs as part of their permitting and operating processes. Mining, quarrying, and oil and gas extraction industries are the most dominant economic forces in Campbell County, and the failure to comply with these requirements impact their operations. Tourism is an ever-increasing economic factor in Campbell County and the management and/or elimination of noxious weeds, invasive species, and pests help protect the health and safety of citizens, as well as the aesthetic value of the natural scenery of Campbell County.

Pest species management (e.g., black-tailed prairie dogs) and control is important to minimize the potential detrimental effect species such as grasshoppers, crickets, and leafhoppers can have on vegetation including crops. Pest species damage the physical structure of vegetation (e.g., chewing grass stems and breaking stalks) and affect the reproduction of the vegetation (e.g., removing reproductive structures and consuming seeds). Another damaging aspect of pests is that they can introduce pathogens such as bacteria, spores, and viruses. Control of pest species generally is not for complete eradication, but to maintain levels that do not result in harm to the natural or economic investments.

The black-tailed prairie dog is a state designated pest species that raises great concern to the agricultural base of the community (USFS 2020). The agricultural community identifies prairie dogs as competitors with livestock for forage through consumption and clipping to remove vegetation to view approaching predators, and can consume/clip substantial amounts of seeds, stems, roots, grasses, weeds, and leaves of flowering plants in or near agricultural fields. Furthermore, in times of drought prairie dogs are believed to damage the root system of plants as evidenced by pock-marked diggings (Montana Department of Agriculture 2013). Prairie dogs can carry sylvatic plague, a disease of wild rodents. When people contract the disease it is called bubonic plague. People can become infected from direct contact with a diseased rodent or their fleas. Although this species is considered a sensitive species by the BLM (2010) and USFS (2018), it is designated as a pest species by the State of Wyoming (WWPC 2014).

Aquatic invasive species are a threat to the quality of the already impaired waterways of Campbell County. Zebra and Quagga Mussels are the specific species of concern due to their potential spread via boats into recreational waters (WGFD 2022). High concentrations of mussels cause drastic changes in water quality through the rapid removal of nutrients from the water column, clogging of pipes, damage to boats, and the out-competition of native aquatic species. There have also been instances of mussel populations establishing themselves within the pipelines of Wastewater Treatment Plants and causing significant damage to utility systems.

State designated and county declared noxious weeds and pests, as well as non-native invasive species, can alter the ecological balance, increase erosion concerns, reduce crop and timber yields, diminish recreational opportunities, lower land values, clog waterways, and can transmit pathogens to humans, crops, and livestock.

### 3.6.1 Policy

Support integrated management of weeds and pests to protect economic and ecological resources in Campbell County through prevention, education, eradication, control, and monitoring of state designated and county declared noxious weeds and pest and non-native invasive species.

### 3.6.2 Goals

- Implement Wyoming Weed and Pest’s early detection, rapid response weed management strategy in order to detect and prevent new invasive species from becoming established and difficult to control and eradicate.
- Management of the spread of undesirable invasive and noxious plant species.
- Support the environmentally sound prevention and control of noxious weeds, invasive species, and pests into Campbell County/
- Pursue grant opportunities and/or partnerships to aid in invasive weed or pest prevention, control, monitoring, and education.
- Prevention of the introduction of designated/declared pests. Control of mammals which have become designated/declared pests, as defined by the WDA.
- Prevention of the introduction of diseases, such as rabies, bubonic plague, tuberculosis, brucellosis, chronic wasting disease, West Nile, tularemia, tick fever and other diseases carried by wild animals and insects.
- Control of insects which have become pests, as defined by the WDA.
- Protection of the environment and the aesthetic value of the natural scenery.



### 3.6.3 Objectives

- *Facilitate and support cooperative efforts and programs involving private landowners and local, state, and federal land management agencies in the control of designated insect pests (e.g., mosquitoes, grasshoppers, Mormon crickets) on all lands in Campbell County, including consultation with Campbell County Weed and Pest District, as an agency with special expertise.*
- *Oppose the introduction or translocation of weed, invasive, and pest species into Campbell County absent a compelling public interest in such introduction and extensive coordination and consultation with local government entities, including Campbell County Weed and Pest District, and private landowners prior to such introduction. Any introduction of weed, invasive, and pest species shall be fully analyzed, with public health, safety, human welfare, private property, and socio-economic impacts being fully disclosed, evaluated, and mitigated prior to the introduction of such species.*
- *Monitor prairie dog colonies for evidence of plague or other communicable diseases. If any evidence is noted, report it to the Wyoming Department of Public Health.*
- *State and federal agencies shall:*
  - *eradicate where possible and control all noxious weeds, pests or invasive species. The agencies shall take measures to prevent the spread of noxious and invasive species from their administered lands onto adjacent private lands*
  - *implement an expedited approval process for low-use rate pesticides that are developed, approved and labeled through the EPA and have become a critical component of weed/pest control in the county on State Designated and County Declared noxious species as defined through W.S. 11-5-102.*
  - *control prairie dogs on agency-owned lands in order to prevent range degradation, reduction of available forage to lessees, and expansion of prairie dogs from state and federal lands to private lands.*
  - *enforce the protection of Boundary Management Zones (BMZ) within Management Area 3.67, as provided in the 2020 TBNG Plan Amendment, which requires that there will be ¼-mile BMZ around private and state land where control of prairie dogs will be prioritized to reduce impacts to surrounding landowners. BMZs may be temporarily expanded to ¾ mile in specific circumstances.*

Campbell County is concerned about the impact that prairie dogs may have on the agricultural base within the county. Prairie dogs can reduce carrying capacity for livestock and other large grazers. The impact of prairie dogs on carrying capacity varies with habitat type, prairie dog density, colony age, and the proportion of the area colonized (Vermeire et al. 2004). Studies have measured the rate of expansion of prairie dog colonies, evaluated the effects of the percentage of pastures newly colonized by prairie dogs on cattle with gains, and estimated the impact that prairie dogs may have on the economic returns of livestock grazing in shortgrass prairies (Antolin et al. 2006, Derner et al. 2006). Both studies reported colonies expanding more than 6-fold from 1999 to 2004, which included four years of below average precipitation. This supports the notion that black-tailed prairie dog colonies rapidly expand during periods of drought without any control mechanisms. Cattle gains during this study decreased as the amount of pasture colonized by prairie dogs increased. The decline was slower than the increase in area colonized

by prairie dogs that the authors attribute to the grazing resistance of the short grass plant species. As a result of the reduction in weight gain by the livestock during the grazing season, the estimated economic returns were affected by the colonization of the prairie dogs.

### **3.7 Threatened, Endangered, Candidate, Proposed and Special Status Species**

The expansive grasslands, shrublands, and riparian areas of Campbell County support a variety of wildlife species. This includes species that are rare enough that they warrant regulated protection or special management attention to ensure population viability and prevent the need for regulated protection. In Wyoming, rare wildlife and plant species have been protected under the ESA and received special management attention where they occur on lands managed by BLM or USFS. The list of species protected under the ESA changes over time as species are added and others are delisted, or their status changes. Critical habitat for listed species might also be designated. The current list of threatened, endangered, and candidate species that are known to occur or could occur in Campbell County is found in Appendix A (USFWS 2021). The protection provided listed species under the ESA is described in the Regulatory Framework section of this document (Appendix B).

For BLM-managed lands (Figure 2-1 and Figure 2-2), the BLM BFO maintains a list of sensitive species (Appendix A for BLM managed lands; Figure 2-1; the Region 2 Regional Forester designates sensitive species [Appendix A]). Since the USFS Region 2 sensitive species list is developed for National Forests and Grasslands in Colorado, Nebraska, and South Dakota, as well as Wyoming, not all species on the list may occur in Campbell County. For actions on USFS managed lands, the USFS may require preparation of a biological evaluation and/or biological assessment that describes USFS-listed sensitive species that may be present and potential impacts to those species, with the goal of preventing impacts to sensitive species populations that may contribute to the need for federal listing (USFS 2001).

Campbell County participates with regulatory agencies in the listing and management planning efforts for rare wildlife and plants because management decisions for ESA listed and sensitive species have the potential for substantial impacts on the economy of Campbell County. The loss of the ability to use lands that could result from the listing of a threatened or endangered species could hinder the ability to manage resources in a profitable manner. For example, the slowdown in energy development caused by regulatory restrictions due to threatened and endangered species listings could result in loss of jobs and tax revenues, and has the potential to cause companies to go out of business.

Campbell County believes that effective management of rare wildlife and plant species is best achieved when local land owners and managers are invested in the successful implementation and outcome of conservation actions. Therefore, incentives and assistance for protection of rare wildlife species on private land should be encouraged. There must be a positive correlation between the effort and expense of wildlife and plant management tools applied to protect wildlife and the magnitude of the benefit achieved. In addition, these management tools should be as efficient as possible to achieve the best possible result without lowering economic values.



### 3.7.1 Policy

Collaborate on population recovery plans for federally listed and BLM and USFS special status wildlife and plant species utilizing cooperative management with appropriate regulatory agencies incorporating input from local and directly-affected stakeholders.

Federally listed and special status wildlife and plant species are managed as part of an ecosystem using pertinent data and in conjunction with multiple use mandates in coordination with Campbell County and other directly affected stakeholders.

### 3.7.2 Goals

- State and federal agency notification and coordination with Campbell County as part of the review/evaluation, listing, and management of listed and special status species, and critical habitat for listed species.
- Participation by local authorities and affected stakeholders in the listing and management of threatened and endangered species and critical habitat.
- The use of the best available scientific and economic data to make decisions on the listing and management of threatened and endangered species.
- Protection of private property rights and interests to the maximum extent possible.
- Campbell County opposes the reintroduction of listed and special status species that will cause economic loss.

### 3.7.3 Objectives

- *Support efforts to improve habitat and management practices in order to prevent the listing of an ESA species.*
- *Encourage consideration of agreements with state and federal agencies to mitigate impacts to threatened, endangered, candidate, and proposed species (e.g., candidate conservation agreements).*
- *Differentiate between special status species and those formally listed pursuant to the ESA in federal land planning efforts because special status species do not require the same levels of protection.*
- *Consider conservation plans, initiatives, or agreements to address threats to species and their habitats before listing a species.*
- *Support the recovery planning efforts for sensitive, threatened, endangered, candidate, and proposed species that are consistent with this plan.*
- *Abide by recovery objectives in any threatened and endangered species listing and shall promptly remove the listing once those objectives have been met.*
- *Communicate, coordinate, and cooperate with Campbell County in the review/evaluation, listing, and management of threatened and endangered species, including the designation of critical habitat for listed species within Campbell County;*
- *Fully evaluate and document the local economic and social impacts of proposed critical habitat designations with an Environmental Impact Statement (EIS) before the designation of critical habitat.*
- *Support utilization of non-biased, objective data substantiated by credible scientific peer-reviewed methods in the collection, manipulation, and interpretation of data to be utilized in threatened and endangered species listings;*

- *Obtain expressed written permission of the property owner before conducting an inventory or habitat assessment of a threatened, endangered, candidate, or proposed species on private property.*
- *Data or inventory collected for a proposed threatened or endangered species listing obtained without the express written permission of an affected property owner may not be used to validate the proposed listing.*
- *Encourage incentives and assistance for protection of threatened, endangered, candidate, or proposed species and critical habitats on private land.*
- *Allow existing property uses to continue under any critical habitat designation to the maximum extent practical.*
- *Proposed critical habitat designations and species reintroduction should avoid areas where it would cause substantial economic and/or social impacts.*

### 3.8 Predators

A predator is an organism that hunts and feeds on its prey, the organism that is attacked. Whether it is a mountain lion preying on a deer or a mantis eating a bee, predator and prey interactions are a natural ecological process. Predation becomes a concern when predators turn from their natural prey species, and cause harm to humans through direct encounters or harm to sources of livelihood (e.g., livestock, poultry, or crops and forage production). Exotic and non-native predatory animals, among other factors, pose threats to native species. Introduced non-native fish pose predatory or competitive threats to native species throughout river basins (Barrineau et al. 2007). Terrestrial predators such as coyote, red fox, raccoon, porcupine, skunk, and jackrabbit pose threats to native and sensitive species, and these effects can be magnified when other factors, such as habitat alteration or reduction are involved. Any predator management control strategy should be based on knowledge of predatory animal population trends and dynamics, since they fluctuate as a result of naturally occurring phenomena such as drought, fire, floods, and fluctuations of natural prey base, with subsequent fluctuations on the populations they prey upon. Human related infrastructures such as roads, buildings, pipeline corridors, fences and poles provide hiding habitat for ground predators such as skunks and foxes, with implications for prey populations and sensitive species. For example, ground-nesting birds are exhibiting decreasing population trends due to increased human-adapted predator populations (Naugle et al. 2011).

According to definitions found in W.S. Title 23 Game and Fish (W.S. 23-1-101), “predatory animal” includes: coyote, jackrabbit, porcupine, raccoon, red fox, skunk, stray cat, and grey wolf, when located outside of those areas in Wyoming that they are classified as a trophy game animal. The same statute defines “predacious bird” as English sparrow and starling. Although coyotes are the main predator species that impact livestock and wildlife in Campbell County, the re-introduction of wolves in other parts of Wyoming may pose economic threats to the agriculture and hunting industries as these predators migrate across into non-reintroduced areas.

Since the late 1800’s, production agriculture based on livestock has been a way of life in Campbell County. When predatory animals and predacious birds are destructive to livestock, game, and poultry, and are negatively impacting crops and forage production or human health and safety, management becomes necessary (W.S. 11-6-104(a)). Economic losses to domestic

cattle, sheep, and wildlife from predation can be significant. Thus, predator management is an essential part of livestock production and wildlife protection and is considered custom for Campbell County.

The Wyoming Legislature established the Animal Damage Management Program in 1999 for the purposes of lessening damage caused to livestock, wildlife, and crops by predatory animals, predacious birds and depredating animals, or for the protection of human health and safety. This program is administered by the Animal Damage Management Board (ADMB) whose stated mission is to “coordinate and implement an integrated animal damage management program, based on the best available science, for the benefit of both the human, as well as the natural environment.” In accordance with W.S. 11-6-201, the ADMB comprises a 12-member board from various interests and appointed by the Governor. Most of the counties have a predator management board. Each predator management board comprises six locally elected livestock producers, chosen to represent the interests of producers in the county who have paid into the program through locally assessed predator management fees. In addition to the six livestock producers, each Board of County Commissioners is authorized to appoint one member to the board if the Board of County Commissioners has elected to provide additional funds to the Predator Board. If the board of directors determines state funding is necessary for an effective predator management program to assure the statutory requirements provided in W.S. 11-6-205 are fulfilled and state funds are appropriated and received for that purpose, then three directors representing sportsmen and hunters from the local district shall be appointed to the board of directors by the county commissioners serving the local district.

The Campbell County Predatory Animal Control Board has working relationships and numerous agreements with agencies, organizations, and livestock producers in Campbell County to resolve human/wildlife conflict issues. The County Board retains the services of two full time and two part time contract wildlife specialists. There are two specialists in the south half of the county due to the substantial sheep production there. They also work with the cattle producers in that area and work to benefit wildlife where requested. There is one specialist in the north half of the county to work for the livestock producers, which are mostly cattle, and to benefit wildlife in that area. The Campbell County Predator Board is overseeing an ongoing wildlife protection project that it in its third year and has been well received by area ranchers, outfitters, and sportsmen. The fourth specialist works to resolve urban conflicts with all species of predators and also works extensively to protect the public from rabies, which is mostly carried by skunks locally. The board has been heavily involved in an ongoing rabies program and receives additional funding from both the city and county to continue this program. The Board also has a working agreement with USDA/APHIS/Wildlife Services (WS) for aerial predator control work. They also retain the services of three other commercial aircraft for services as needed for aerial predator control work.

The USFWS does issue depredation permits for migratory bird species (USFWS 2013). This permit is issued to address short-term relief from blackbirds, cowbirds, grackles, crows, magpies, and resident Canada geese in Wyoming.

### 3.8.1 Policy

To keep citizens and businesses free from personal injury and property and livestock loss due to predator attacks, to keep wildlife populations sufficient for hunting and recreation opportunities, and to keep balanced predator/prey populations based on credible scientific data.

### 3.8.2 Goals

- Maintenance of all currently recognized and approved methods of predator control, including but not limited to: trapping, artificial calling methods, chemical control, aerial hunting and wildlife habitat improvement. Monitoring of predator-related activities affecting Campbell County by state and federal agencies.
- Participation in decisions made by state and federal agencies in order for Campbell County's economic interests to be represented and protected.
- Maintenance of an animal damage control plan for the protection of livestock, wildlife, and crops on private land and bordering state and federal land.
- Coordination of predator control actions and regulations by state and federal agencies with those of Campbell County. Employment of sound science in predator management decisions.

### 3.8.3 Objectives

- *Support science-based predator control and management.*
- *Include all recognized methods in predator control and based on science based and peer reviewed data, economics, and logistics of use.*
- *Monitor and collect data regarding the impact on prey species populations when predator species receive special protection through any act or designation by any state or federal agency. State and federal wildlife agencies shall keep predator populations within acceptable limits to protect human populations and domestic animals from disease spread by predators.*
- *State and Federal monitoring and collection of data regarding the impact on prey species populations when predator species receive special protection through any act or designation by any state or federal agency.*
- *Appoint one (1) agricultural representative to any team-based, decision-making process that state and/or federal agencies undertake pertaining to predator control.*
- *Support efforts by the WDA, the WGFD, and other wildlife management agencies to reduce predation on domestic livestock and animals and wildlife.*
- *Keep predator populations within acceptable limits to protect agriculture carrying capacity and wildlife populations;*
- *State and federal agencies shall keep predator populations within acceptable limits to protect human populations and domestic animals from disease spread by predators.*
- *Recognize the right of private property owners to protect their property and livestock and animals from predation through state and federally approved control methods*
- *State and Federal allocation of financial and personnel resources to reduce predation on domestic livestock and wildlife;*
- *recognize state and county designated predators and cooperate in control and management actions;*

- *Support agricultural and wildlife management agencies efforts to dedicate financial and personnel resources to predator management.*
- *State and federal consultation, coordination, and cooperation with local governments, including local Predator Boards, and affected stakeholders in decision making regarding predator management at the local level;*
- *Examine and evaluate impacts to prey species in any state or federal action which provides special protection to any predator species.*
- *Protection of predator species shall not be to the detriment and reduction of prey species.*
- *Support predator control based on a balance between the best science available, economics and logistics, and evaluated on a case-by-case basis.*

The Wyoming ADMB may receive money for predatory animal, predacious bird and depredating animal management from the federal government, state appropriations, counties, agencies, boards, associations, commissions, individuals and any other cooperators, and may expend monies to purchase supplies, materials, services, and to employ or contract personnel for predatory animal, predacious bird, and depredating animal management. The ADMB may make supplies, materials, services and personnel available to cooperators at approximate cost. The board shall annually request one hundred thousand dollars (\$100,000.00) from the Wyoming Game and Fish Commission (WGFC). These funds shall be expended for wildlife priorities. The WGFC may provide recommendations to the board regarding expenditure of these funds. The Campbell County Predator Management Board shall exercise general supervision in determining local priorities for the management of predatory animals and predacious birds that prey upon and destroy livestock, other domestic animals, wildlife and crops; devise and put in operation those methods that best manage predatory animals and predacious birds, administer funds received to carry out the animal damage management program; maintain existing financial and physical resources; and provide input to the ADMB. The ADMB may enter into cooperative agreements with other governmental agencies, counties, associations, corporations or individuals for carrying out the purposes of Wyoming Title 11, Chapter 6, Article 1 (W.S. 11-6-1). In addition, livestock owners may request assistance from WS on private and public lands.

Federal actions require NEPA analysis to analyze all aspects of proposed actions, including impacts to prey species resulting from extended protection to predatory species. The USFWS publishes information about listing proposals in the Federal Register. To ensure that the public is aware of listing proposals, the USFWS also publishes press releases in are newspapers, and notifies government personnel at the federal, state, county, and municipal level, as well as local organizations. After publishing in the Federal Register, there is a 60-day public comment period, and a public hearing, if requested, must be held within 45 days of publication in the Federal Register. Campbell County should work to disseminate information about federal listing decisions to residents, and coordinate communication about additional species information and concerns to the USFWS during the comment period. The 60-day public comment period for federal listing proposals is the opportunity for interested citizens and stake holders to provide comments or additional information regarding that proposal. Statements may also be submitted at public hearings, if held. Campbell County should gather pertinent information about species occurrence and potential impacts to industries, businesses, land use, and local economy that could occur due to listing decisions. This pertinent information should be submitted to the



USFWS during the public comment period for any listing decisions that affect residents and businesses in Campbell County. Campbell County should work with USFWS to ensure that county-specific concerns and preferences are communicated and considered during the decision-making process.

Predator control programs utilize a wide spectrum of materials and techniques varying in cost and effectiveness. Compound 1080 was widely used but was banned for general use in 1972 along with other toxicants such as strychnine (Executive Order 11643). The M-44 is currently a highly used method. It is a spring-loaded device buried in the ground, leaving only the bait-covered capsule holder projecting above ground surface. Often a coyote will sniff and then pull on the capsule holder in an attempt to remove the bait. In doing so, a trigger is released, and the device projects a sodium cyanide capsule into the animal's mouth, resulting in a swift and humane death. This is a favored method of control, and it is highly regulated by the state and federal government. Users are licensed by the state and numerous hours of training are required. Despite the problems encountered with cyanide ejector devices over the years, they have been consistently important for coyote control ever since their introduction into governmental control programs around 1940. Minor improvements still can and are being made, but most major problems have been addressed and resolved (Blom and Connolly 2003). Areas where use is prohibited and more restrictions on M-44 use can be found in the WDA bulletin USEPA Reg. No. 35978-1 (USDA APHIS 2010). Shooting coyotes from aircraft is effective but is limited by terrain, vegetation, weather conditions, and most of all cost. Ground shooting, trapping, and den destruction can temporarily alleviate localized coyote damage. The most common hunting method involves using electronic callers or mouth calls to lure in a coyote. Good husbandry practices can also help protect livestock and are a non-lethal damage management method. An example of this is guard animals to protect sheep flocks, which can be very effective (Gese et al. 2005). There are also several local coyote hunts where prizes and money are awarded to the hunters that harvest the most and the largest predators.

### 3.9 Wildlife

Historically, land in Campbell County has had multiple uses with cattle grazing and farming being common land uses. Private, state, and federal land provide vital habitat for wildlife species managed for consumptive and non-consumptive uses, and in Campbell County wildlife has flourished in conjunction with mining, oil and gas development, livestock grazing, and farming, and has not been unduly disturbed by roads, power lines, pipelines, housing developments, etc. Many wildlife species are a common sight in the municipalities of Gillette and Wright, rural housing developments, mining areas and oil and gas fields.

The land in Campbell County is 82% privately owned, with the remaining 12% of federal and 6% of state land primarily intermingled in small parcels within the private lands. As the state and federal lands are not separately fenced, gaining access and management for public access is very challenging, particularly for hunting and recreation purposes. Many landowners are reluctant to grant access across and within their fenced properties. Although there are a limited number of parcels that have public access, they are typically heavily used and game numbers can become scarce on these parcels due to the heavy use and to the game migrating onto neighboring lands.

This land ownership pattern poses challenges to the WGFD in maintaining population numbers for game animals. Out-of-state hunters must apply for a license through a drawing system. They may have difficulty finding a public access hunting area and if booking with an outfitting business or a private landowner, may not draw the license they need to hunt in that specific area.

The current reimbursement that landowners receive from the coupon on a hunting license for game taken on their lands does not provide adequate reimbursement for the amount of habitat and forage provided for the wildlife on their lands. Many landowners have developed a hunting business or lease their lands to an outfitter to generate additional income.

The traditional and cultural uses of wildlife such as hunting, outfitting, photography, and recreational enjoyment, are enjoyed by residents and non-residents alike. Hunting for big game, trophy game, and small game species provides economic viability for many private landowners, citizens, and rural communities (WGFD 2014a). Ducks are the predominant waterfowl harvested in the county, with geese and sandhill cranes also migrating through the area during spring and fall (Orabona et al. 2012, WGFC 2013).

Wildlife and natural landscapes are valued resources to the State of Wyoming evidenced by the Wyoming Legislature forming the Wildlife and Natural Resource Trust (WNRT) in 2005 (W.S. 9-15). Three projects have been funded in Campbell County either partially or totally by the WNRT. These projects include sediment removal from the Gillette Fishing Lake, fencing and water development to enhance riparian areas and woody draws along Buffalo Creek, and the construction of the northeastern Wyoming bird rescue barn where injured and orphaned eagles, hawks, owls, and other birds throughout northeastern Wyoming are rehabilitated to be released back to the wild (WNRT 2013).

The WGFD SWAP is a comprehensive strategy to maintain the health and diversity of wildlife in the state (WGFD 2017a). The plan outlines steps to conserve wildlife and habitat before populations are reduced to levels too low to recover or habitats become too costly to restore. The SWAP addresses a variety of wildlife and habitat management challenges, the terrestrial habitat types and aquatic basins that cover a majority of the state, and Wyoming's Species of Greatest Conservation Need ([SGCN], WGFD 2017a). The SWAP identifies priority areas that are considered important for the SGCN based on a number of values including overlap with other biological features such as sage-grouse core areas, Strategic Habitat Plan (SHP) priority areas, and key nongame wildlife areas. Several priority areas extend into Campbell County covering 703,700.14 acres (Figure 3-15).

Three SHP projects were conducted in Campbell County during 2013 including riparian habitat protection, mule deer legume seeding project, and habitat extension services (WGFD 2013a). The riparian habitat protection project involved three new Continuous CRP Contracts. Two of the projects are adjacent to each other and total approximately 95 acres on Box Draw Creek. The intention of these projects is to restore riparian vegetation and involve excluding cattle use. The third project is located in northcentral Campbell County on the East Fork of Bitter Creek. The mule deer legume seeding project involved planting alfalfa and sainfoin in Crook County and on approximately 110 acres in central Campbell County. The plantings were conducted to provide

mule deer with high quality forage. WGFD provided habitat extension services in the form of wildlife reviews for 100 different projects for private landowners, BLM, and NRCS.

The SWAP habitat types in Campbell County include:

- Prairie Grasslands and Sagebrush Shrublands
- Wetlands, Riparian, and Open Water
- Forests and Woodlands

Prairie grasslands and sagebrush shrublands provide habitat for grassland obligate and shrub-adapted species. Common wildlife species that typically occur in these habitats in Campbell County include prairie rattlesnake, greater short-horned lizard, golden eagle, prairie falcon, Swainson's hawk, sharp-tailed grouse, lark bunting, horned lark, western meadowlark, Brewer's sparrow, lark and vesper sparrow, chestnut collared longspur, American badger, coyote, desert cottontail, black-tailed jackrabbit, kangaroo rat, mule deer, pronghorn, white-tailed deer, and black-tailed prairie dog, among others (Orabona et al. 2021). Among the SGCN identified by the SWAP, olive-backed pocket mouse, black-footed ferret, swift fox, ferruginous hawk, greater sage-grouse, and greater short-horned lizard are among those with the potential to inhabit prairie grasslands and sagebrush shrublands in Campbell County (WGFD 2017a).

Wetland, riparian, and open water habitats are important for breeding birds and other wildlife species in prairie landscapes (Knopf and Samson 1994, Scott et al. 2003). Big game species, birds, and small mammals, including bats, all have strong seasonal or year-long associations with riparian habitats, using them as migration corridors, foraging and watering areas, and nesting habitat (Buskirk 1991). In addition, riparian areas are used for agriculture, recreation, travel, water development, and housing. Most communities in Wyoming occur in conjunction with riparian zones, with implications for development and land use planning.





Figure 3-15. Priority areas for terrestrial Species of Greatest Conservation Need.

In Campbell County, riparian and wetland habitats cover 5% of the county’s total area (Table 3-7). Three major river drainages occur in Campbell County: the Powder River, the Cheyenne River, and the Belle Fourche River basins (Bradshaw 1996, Stewart 1996, BLM 2013). Native fish in the Powder River Basin are channel catfish, sauger, shovelnose sturgeon, and stonecat. The Little Powder River, one of the tributaries on the Powder River that runs through Campbell County, supports a constant, healthy fish community and a relatively intact habitat with minimal human influence (Barrineau et al. 2007, Peterson et al. 2010). Native fish communities in the Belle Fourche River and the Cheyenne River basins are limited by turbidity, low-oxygen, and high-temperatures (Barnes 1996, Bradshaw 1996), supporting a less diverse, declining fish populations (WGFD 2008). River systems, artificial and natural ponds, watering holes, and creeks, with their associated riparian/wetland vegetation, can be found throughout Campbell County (Table 3-12; Figure 3-16).

**Table 3-12. Wetland types found within Campbell County, Wyoming.**

<b>Wetland Type</b>	<b>Acres</b>	<b>Percent</b>
Freshwater Emergent Wetland	22,886.51	79.9
Freshwater Pond	4,224.72	14.7
Riverine	911.87	3.2
Freshwater Forested/Shrub Wetland	476.58	1.7
Other	86.09	0.3
Lake	74.03	0.3
<b>Total</b>	<b>28,659.79</b>	<b>100</b>

Riparian and wetland habitats provide suitable areas, foraging sources, and connectivity zones for breeding, wintering, migratory and resident wildlife species, including bald eagles, waterfowl, and big game species (WGFD 2017a). In Wyoming, the majority of terrestrial vertebrate species are believed to show preference for riparian habitats (Olson and Gerhart 1982). Cottonwood gallery forests, such as those along the Powder River and its tributaries, periodically contribute logs and branches to the river channel, which provide cover for fish (WGFD 2017a). Wildlife species that can occur in riparian areas in Campbell County include bull snake, deer mouse, red fox, pronghorn, mule and white-tailed deer, northern harrier, short-eared owl, Savannah and song sparrow, and red-winged blackbird, among others (Orabona et al. 2012).

Forests and woodlands occur only sporadically throughout the Campbell County; however, these habitats support a unique set of wildlife species. As a result of logging and changes in fire regimes, few old growth, structurally diverse coniferous forests remain in Wyoming (Wyoming State Forestry Division [WSFD] 2009). Only a small percentage of montane/subalpine forests and lower montane forests occur in Campbell County (Figure 3-11, Table 3-7). Wildlife species that can be found in coniferous forest in Campbell County include mourning dove, golden eagle, mountain bluebird, northern flicker, chipping and lark sparrow, mule deer, black-tailed jackrabbit, North American porcupine, and mountain lion (Orabona et al. 2021).

The habitat types described above provide suitable habitat for fish and wildlife species that use the area throughout different phases of their life cycle, representing challenges for conservation, management, and sustainable use.



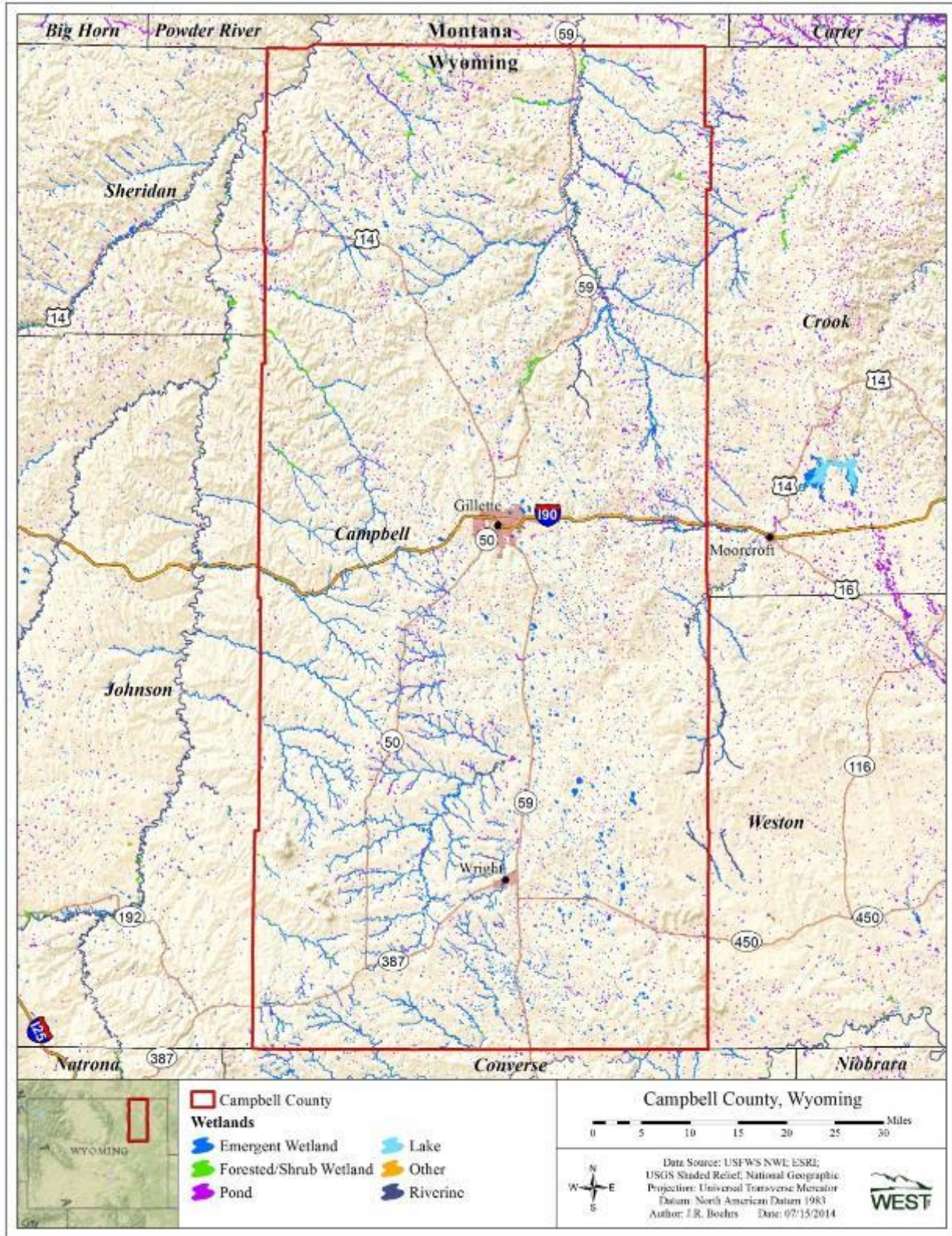


Figure 3-16. Wetlands and riparian habitats in Campbell County.

### 3.9.1 Policy

To achieve, maintain, and improve sustainable wildlife populations of game and non-game species for hunting, recreation, tourism, economic development, and ecosystem balance through management and conservation based on credible scientific data.

### 3.9.2 Goals

- Cooperative efforts and collaborative agreements between citizens, county, local, state, and federal governments; wildlife management agencies; and industry stakeholders. Predator control and wildlife management decisions based on economics, logistics, and credible scientific data. Improved health and disease management of wildlife and prevention of transmission of wildlife diseases to domestic livestock and human populations. Local participation in wildlife management decisions involving harvest and conservation strategies. Adequate open space capable of supporting diverse wildlife populations. Local participation in federal designation of wildlife management and habitat areas.

### 3.9.3 Objectives

- *Allocate sufficient resources to protect, restore, and reclaim game-damaged agricultural resources, pursuant to state law and regulation; and*
- *Implement cooperative partnerships with affected stakeholders to address energy development and wildlife conflicts.*
- *One (1) local wildlife/animal interest representative shall be appointed to any state or federal agency team-based decision making process pertaining to wildlife resources.*
- *State and federal consultation, coordination, and cooperation with local governments and affected stakeholders in the establishment of any wildlife management area or habitat conservation area; and*
- *Address and mitigate negative impacts to wildlife using locally based solutions and cooperative efforts with affected stakeholders.*
- *Keep appropriate mapping data current and validated by source and credible scientific data collection methods.*
- *Keep raptor nesting and population maps current and distinguish between active and inactive nests.*
- *Receive credible scientific data regarding effects of increasing raptor populations on prey species.*
- *Substantiate raptor protection from human activity by credible scientific data that warrants protection and provides proof that raptors cannot co-exist with human activity.*
- *Oppose single species management on state and federal lands.*
- *State and federal agencies shall allocate necessary finances, personnel, and laboratory resources to wildlife disease containment and eradication, and use all available means to reduce and eliminate the transmission of wildlife disease to domestic livestock and human populations.*
- *Hunting and fishing opportunities shall remain available in Campbell County at historic levels.*
- *State and federal agencies shall seek public input in setting licensing, harvesting, and*



*population management numbers for wildlife.*

- *Federal land management planning decisions shall be implemented to support recommended licensing/harvesting numbers as articulated by the WGFC.*
- *State and federal land management decisions shall not reduce currently existing access for hunting and fishing opportunities.*
- *Recognize and uphold private property rights in negotiations and/or acquisition of private lands for public access to state and federal lands for hunting and fishing opportunities.*
- *Support land exchanges in acquiring access to state and federal lands for hunting and fishing opportunities.*
- *State and federal agencies shall be encouraged to provide financial and material support for private landowners in resource enhancement to provide enhanced habitat for wildlife.*

Fish and wildlife management should include actions to appropriately mitigate surface-disturbing activities and maintain or improve fish and wildlife habitat. Management calls for collaboration with agencies and other stakeholders to manage migration and movement barriers, to regulate activities potentially affecting native and desirable non-native species, and to control harmful non-native vegetation in important habitats. Fish and wildlife habitats are maintained or improved through vegetative manipulations, habitat improvement projects, livestock grazing strategies, and fishing and hunting regulations. The development and implementation of these wildlife habitat management and conservation activities should be based on credible scientific data, should be shared and encouraged among private landowners, and should be supported and guided by state and federal agencies responsible for land and wildlife management, in order to provide enhanced habitat and resources for wildlife. In addition, State and federal land and wildlife management agencies should allocate sufficient resources to protect, restore, and reclaim game-damaged agricultural resources and should implement cooperative partnerships with affected stakeholders to address energy development and wildlife conflicts.

Multi-agency cooperation is instrumental for managing habitat and wildlife populations. Managing barriers to fish passage in cooperation with agencies and other stakeholders would have a beneficial effect on sensitive fish species because these barriers can be used to allow certain species to move into new habitats or to keep competitor fish out of specific water bodies. Management activities with the potential to affect native and desirable non-native fish species should benefit special status species, and cooperation and input from several players is instrumental in achieving realistic goals and strategies.

Anthropogenic structures and human practices can provide access for predator species, with detrimental effects. For wildlife, for example, Barrineau et al. (2007) identified the biggest concern for native fish species conservation as the establishment of non-native piscivorous fishes (e.g., green sunfish). Predator control should be a component of wildlife management. Predatory species such as coyote, red fox, raccoon, porcupine, skunk, and jackrabbit, may be hunted or trapped without a license, and there is no closed season. USDA APHIS-WS conducts predatory animal damage-control activities on public lands (BLM 2000). USDA APHIS-WS performs these activities in response to requests from individuals, organizations, and agencies experiencing damage caused by wildlife. Animal damage-control activities primarily include

mechanical (trapping, shooting, and denning), chemical (poison), and nonlethal methods (e.g., noise devices and aversive conditioning). Through the ADMB, the State of Wyoming also performs animal damage-control activities, particularly actions involving rabies and other diseases.

The management challenge for animal damage-control activities is to implement a program that responds to predation problems and remains socially acceptable and safe in accordance with applicable laws and regulations.

Natural variability in wildlife health, population levels, and habitat conditions are part of the natural, stochastic processes driving population dynamics. Periods of mild or severe weather and outbreaks of wildlife disease or insects and plant diseases that impact habitat could impact wildlife population levels. However, disease spread and prevalence can be avoided and minimized through outreach, and educational opportunities will increase with increased recreational access to fisheries and wildlife.

Of importance is the ability of multiple stakeholders and agencies to work together to educate the public of these diseases, as well as provide suggestions of preventive measures. Consideration of public health should play a role in management strategies with implications for zoonotic diseases (Lee et al. 2010). Many times field studies examining the role of hosts in sustaining and spreading diseases and vectors are not permitted due to regulatory restrictions (Pound et al. 2010), illustrating the threats posed to eradication programs and to enterprises. Several methods, including culling and exclusion, have been put in place for eradicating outbreaks involving wildlife hosts (Hood and Inglis 1974, George 1990, Willadsen et al. 1995). Methods of prevention and eradication should be carefully evaluated before being implemented to minimize costs and time, and to maximize success. For example, cattle fever tick eradication was achieved in Florida only after several deer were killed (Shillinger 1938).

New concepts are needed to prevent continued spread that will result in an increase in economic and animal health burdens for producers/landowners, and for the general public. Vaccination of domestic animals is an alternative to chemical controls for some diseases (Hernández 1998); however, many times vaccine effects are not immediate and their action takes place over long periods of time, and therefore, multiple strategies have to be out in place simultaneously (Ruvalcaba-Fernández 2009). Habitat management and land use practices, such as proper disposal of stagnant surface water from mining and livestock water facilities, are linked to the control of some diseases. Biological control is also available for some diseases, with variable outcomes (Wesenberg et al. 2012).

The timing of seasonal fluctuations of hosts relative to that of the vector life stages may be a critical aspect of vector-borne pathogen dynamics in nature, and landscape changes that affect host diversity and community composition can affect disease risk to humans; therefore, it is important to determine the efficacy of host-targeted treatments as alternative approaches to control of vectors populations (Schmidt and Ostfeld 2001, Schaubert and Ostfeld, 2002, LoGiudice et al. 2003). Exclusion of definitive hosts often has been suggested as a method of disease control (Ginsberg et al. 2002, Perkins et al. 2006), and cost-effectiveness of control

schemes can be increased by using a combination of control methods designed for specific landscapes.

Current eradication and prevention programs are faced with a number of challenges including lack of scientific information, widespread occurrence of these diseases, increasingly restrictive regulatory policies pertaining to the use of pesticides, multi-species communities of wild hosts, and changing plant communities that provide an abundance of habitats favorable to the survival of vectors (Pérez de León et al. 2012).

Recognition of the limited capacity of natural populations to recover from hunting pressure guided the first attempts at conservation and restoration of wildlife, and more recently by other leaders and organizations after the recognition that other environmental stressors, such as habitat degradation and fragmentation, are important components of conservation (Soule 1985, Brown 2010). Public workshops on the subject, conducted by educative institutions such as community colleges, or government agencies could be targeted to the middle-aged population, since they would be the fraction of the population most likely interested in wildlife management and conservation, especially in the current era of rapid climate change, loss of biodiversity, and value of ecosystem services, which are all subjects widely commented on in the news.

Campbell County has a rich culture of respect for hunting and its economy and social stability depend largely on such activity. Big game hunting defines the custom and economic viability for many private landowners, citizens, and rural communities. Uses of wildlife such as hunting, outfitting, photography, and recreational enjoyment are part of the custom and culture of Campbell County and can be used in favor or management and conservation practices.

Several big game herds within the county have greatly exceeded their desired number of individuals (WGFD 2009a). Causes for management challenges of these populations that are substantially higher than the objective include limited hunter access to private lands for hunting at a level sufficient to allow effective herd management, migration and movement of animals between regulated and non-regulated hunt areas, lack of accurate classification samples and density estimates, and hunter/harvest distribution associated with private versus public lands. (WGFD 2007). These challenges can be reduced by: a) securing the availability of hunting and fishing opportunities; b) seeking public input in setting licensing, harvesting, and population management numbers for wildlife; c) implementing federal land management planning decisions that comply with recommended licensing/harvesting numbers as articulated by the WGFC; d) recognizing and upholding private property rights in negotiations and/or acquisition of private lands for public access to state and federal lands for hunting and fishing; e) supporting land exchanges in acquiring access to state and federal lands for hunting and fishing; f) maintaining of currently existing access for hunting and fishing opportunities by state and federal land management decisions; and g) considering and opposing, if warranted, perpetual wildlife conservation easements and/or specially designated wildlife conservation areas that prohibit, preclude, or impair the ability of future generations to utilize land resources for future needs.

Wildlife numbers have to be managed in accordance with the land's carrying capacity in balance with other land uses; however, range management practices have traditionally focused on providing forage and suitable habitat for domestic animals only. Only recently, interest in

wildlife income has required modification of traditional practices to embrace the wildlife component. In many cases, several species of ungulates can be found in a given rangeland, making even more difficult the assessment and implementation of management plans. Livestock management practices can have a profound impact on wildlife population dynamics, and the key to a successful holistic management is to consider both domestic and wild animals as integrated parts of the ecosystem (Ortega and Bryant 2005). Ranchers managing multi-species herds could use input from agencies to evaluate and anticipate species-specific impacts on forage resources. Information related to the demands of different herbivores on different forage categories would be useful in making appropriate stocking rate adjustments to avoid overgrazing and long-term deterioration of range conditions, with implications for wildlife.

Management actions for fish generally address water sources and rights, land tenure along river basins; habitat restoration, improvement, connectivity, and conservation; and impacts from authorized activities. Major threats to species associated with aquatic, riparian, and wetland habitats are habitat alteration caused by channelization and dam construction, inducing replacement of estuarine and flooded areas by permanent lakes, sedimentation, increased concentrations of salts and metals, fuel and drilling fluid runoff, introductions of predatory fish, increased clarity and alteration of flow stabilization, and alteration of water flow and temperature. These changes have altered riverine communities throughout the county. For example, comparisons of data collected over the past 50 years suggest that of the fish species present in the Belle Fourche River Basin, nine have declined over from 1960s to 1990s at different spatial scales (WGFD 2008). On the other hand, Gerhardt and Hubert (1991) estimated very low overall fishing pressures on the Powder River. Proactive fish management includes performing restoration of important stream segments for fish habitat and designing crossings to maintain connectivity and flow of nutrients, food, and fishes.

Since much of the funding generated for wildlife and conservation programs has traditionally originated from revenue associated to hunting and fishing activities of game species, efforts of government agencies have traditionally focused toward programs geared to sustainability of such game species, overlooking other aspects of wildlife management (Bolen and Robinson 2003, Williams 2010). Conservation of fish and wildlife resources can be achieved through the application of management strategies aimed at moderate levels of resource use and by setting realistic, attainable objectives of resource use.

Over the last century, there has been an overlap in the consumptive and non-consumptive uses of wildlife, viewing the enjoyment of nature as a more passive activity (Connelly et al. 1985). Programs for additional funding have been established by individual states, and money raised in such manner has been used for management of non-game species, but income from such sources fluctuates and impedes the successful implementation of several long-term programs for management of non-game species (Harpman and Reuler 1985). Interest in non-game species has increased, and initiatives for their conservation and management greatly reside on private agencies, non-governmental organizations, and academic institutions. The success of any conservation strategy for both fish and wildlife populations will largely depend on involvement of local communities, reasonable restrictions, and trade-offs between goals and regulations.



Since a vast percentage of the land in Campbell county is privately owned (Figure 2-1), and given that properly managed harvested crops and grazed lands could provide valuable wildlife habitat by serving as feeding areas for migrating and wintering species such as cranes and waterfowl, this type of multi-scale approach is only possible through involvement of local communities, which should help in guiding management and conservation strategies aimed at achieving and maintaining desired wildlife population levels at sustainable harvesting rates. Therefore, state and federal land management planning decisions shall address and mitigate negative impacts to wildlife using locally based solutions and cooperative efforts with affected stakeholders, with one local wildlife/animal interest representative being appointed to any state or federal agency team-based decision making process pertaining to wildlife resources.

Habitat suitability for wildlife is determined by resource availability, and by patch characteristics including patch size, shape, connectivity, and vegetative composition (Pulliam and Dunning 1987, Graham and Blake 2001, Pearson and Simons 2002, Ginter and Desmond 2005). Habitat conversion and fragmentation cause a shift in resources and landscape configuration, and this degradation contributes to a reduction in livestock carrying capacity, a decrease in biodiversity, alteration of nutrient cycling, changes in species composition, and increased soil erosion (Nielson 1986, Winter et al. 2000, Whitford 2002, Davis 2004).

Loss of open space has been defined as one of the threats faced by forests and grasslands (USFS 2004). Development of open space affects the ability to manage national forests and grasslands, as well as the ability to help private landowners and communities manage their land for public and private benefits (USFS 2014b). Approximately 40% of the original sagebrush extension in North America has already been lost and the vast majority of what remains has been heavily modified (Connelly et al. 2004). Sagebrush shrub steppe associations are widespread in Wyoming (WGFD 2009b). Wildlife associations with this habitat include several species, including the greater sage-grouse. The State of Wyoming Executive Order (EO) 2019-3 has been put in place to help protect greater sage-grouse and its habitats in Wyoming.

A strategy that provides a framework to focus existing and new actions for conserving open space is needed in order to maintain ecosystem function and processes to minimize impacts and maintain connectivity, identifies areas of native grassland and shrubland areas that are currently in good condition that should be avoided, and when not possible, where mitigation strategies should be implemented.

Campbell County contains a considerable amount of grassland/herbaceous and shrub/scrub cover, with the potential to support grassland sensitive species and shrubland adapted birds that are likely to be negatively affected by development. Species potentially affected include several grassland obligate species and area sensitive species, such as the mountain plover, burrowing owl, lark bunting, McCown's longspur, and Sprague's pipit (Ribic et al. 2009), as well as shrub-adapted, area dependent species, such as greater sage grouse, Brewer's sparrow, and lark sparrow.

The Little Powder River and Belle Fourche River, which are lined with wetland and riparian features, run through the county, providing herbaceous and woody wetland habitats, as well as aquatic connectivity and habitat for several native species and species of concern (WGFD

2009b). Riparian and wetland habitat should be maintained in those areas where watershed integrity is still high, and actions should be taken to improve this habitat where integrity has been degraded.

Wetlands and riparian areas are incredibly diverse and valuable habitats. Many wildlife species depend on these habitats for all or part of their life-cycles and some are present in no other habitat types. Water development projects that alter discharges, turbidities, water temperatures, and sediment transport, likely result in a change to the endemic fish and wildlife community. Small irrigation diversion structures and impassable road crossings fragment habitat and could be interfering with some life-cycle requirements of some native fish species, while alteration of the riparian habitats associated with rivers and open water might have effects on terrestrial wildlife. Improving and maintaining water quality in streams and rivers, and improving the conditions of riparian habitats, are key components to managing aquatic and wildlife resources throughout the county.

State and federal land and wildlife management agencies shall consult, coordinate, and cooperate with local governments and affected stakeholders in the establishment of any wildlife management area or habitat conservation area.

Campbell County provides suitable habitats for a diverse composition of bird species, including many raptors. Raptors are included in all land management decisions by state and federal agencies as they are offered protection along with a majority of other bird species in the US by the MBTA (16 USC 703). Eagles are further protected under the Bald and Golden Eagle Protection Act of 1940 (BGEPA; 16 USC 668). The BLM BFO, which manages BLM lands in Campbell County, maintains a database of raptor survey data from studies conducted on the lands they manage (BLM 2014). These data are used in the evaluation of proposed projects requesting various permits from the BLM, as well as establishing mitigation measures and permit requirements. One important use of the BLM data involves the application of the USFWS raptor seasonal nesting protective buffers around active nests. These buffers are designed to minimize the potential “take” of raptors during any human-related activity. Campbell County conducted an independent review of the accuracy and consistency of the raptor nest location data that the BLM maintains (Ecosystem Research Group 2014). In summary, the independent review involved verification of the data through ground-based and aerial survey efforts conducted during April 2014. The study stated that the database maintained by the BLM was generally accurate, effective, and thorough as it related to past raptor nest survey efforts. The study did identify several nuances and factors that are important to consider regarding the BLM raptor nest location data. These include the fact that the BLM continues to map and buffer nests that are in the database, but the data associated with the nest states that the nest is no longer in existence. The result of this is that areas within Campbell County are being protected when perhaps no nest exists. Additionally, post-discovery follow-up survey efforts are inconsistent across the nest surveys, with some nest sites surveyed multiple times, while other nests were not visited with the last 15 to 20 years. Updating the data could provide valuable information for understanding the relationship between raptor nest occupancy, and energy and residential development. This study suggests that the application of protective buffers on species that are known to be highly tolerant of human presence and activities, such as American kestrels, red-tailed hawks, and great horned owls, are relatively ineffective barriers and offer no critical conservation value to these raptor

species (Johnson and Anderson 2002, Stout et al. 2006, Utah National Guard 2011). It is suggested that the USFWS protective buffers be applied to the most sensitive raptor species or those listed as species of concern by the BLM.

The BLM raptor database is the foundation of another study conducted by the Chalfoun Lab of the Wyoming Cooperative Fish and Wildlife Research Unit that evaluated changes in raptor nest use in the Powder River Basin, which includes Campbell County. This study proposed to determine: (1) temporal and special trends in raptor nest activity in relation to CBM development, (2) differing reactions between raptor species to an increasingly disturbed environment, and (3) additional environmental factors (besides the CBM wells) that may be influencing changes in raptor activity (Wyoming Cooperative Fish and Wildlife Research Unit 2010). The BLM proposes to use the results to evaluate their current timing limitations typically stated in the Conditions of Approval (COA) for CBM wells and to develop species-specific disturbance-free buffer zones around CBM wells (Wyoming Cooperative Fish and Wildlife Research Unit 2010). A manuscript and poster highlighting the findings is available and concludes that raptor nest use is declining and the data do not implicate energy development as the direct cause (Wyoming Cooperative Fish and Wildlife Research Unit 2010). Other factors known to negatively affect raptors include decreased prey abundance, drought, lack of quality nest sites, and encroachment of invasive grasses; human disturbances may be partially affecting the decline in nest use (USFWS 2008).

According to the WGFD's Threatened, Endangered, and Nongame Bird and Mammal Investigations Annual Completion Reports from 2013 and 2014, it appears that golden eagle and ferruginous hawk populations are stable in Wyoming, while the bald eagle populations may have increased slightly in the Green River Basin (WGFD 2013b, 2014c). The data collected by the WGFD in these studies will be used to determine the potential impacts of human related activities (e.g., oil and gas development) on these raptor species. The report related to the ferruginous hawk states that the availability of prey may limit the abundance of nesting pairs in various regions, supporting the notion that the management of prey species will affect the raptor population. Similarly, if the raptor population should increase, this type of monitoring should continue regarding the prey species.

The TBNG maintains a raptor database, the Thunder Basin Database, tracking over 1,200 known raptor nests within the grasslands (both in and out of Campbell County). Ferruginous hawk and golden eagles dominate the Thunder Basin Database, which appears to support WGFD data that these species' populations are stable. The majority of the surveys in the Thunder Basin Database are ground-based surveys and associated with projects on the grasslands, with an estimated 85% of nest locations known. Jim Byer of the USFS Douglas field office, and whom oversees the Thunder Basin Database, identified the database as containing information about sensitive species and therefore not made available to the public (Hillis et al. 2015).

Campbell County presented raptor symposiums in 2015, 2017, 2019, and 2021. These symposiums have focused on the science needed to strike a better balance between energy development and raptor habitat protections in the State of Wyoming. The symposiums are based on the premise that the stipulations in place to prevent the taking of raptors under the MBTA and the BGEPA are based on limited data for many species and vary from locality and agency. The

symposiums are designed to identify how the existing data could be used to improve the stipulations and to identify the new data needed to improve the stipulations. The symposiums foster greater cooperation between the entities engaged in surveying, monitoring, and decision-making regarding habitat use and energy development. These bi-annual symposiums exemplify the interest and commitment Campbell County has related to this issue.

Campbell County is concerned that management decisions to improve habitat for one species may result in negative impacts to another species. There are several approaches for conservation and management of wildlife, including single-species, multi-species, umbrella species, flagship species, keystone species, and indicator species. It has been shown that any one approach contains advantages and disadvantages (Block et al 1995, Simberloff 1998, Roberge and Angelstam 2004).

In Wyoming, state and federal agencies applied the umbrella species concept for the conservation and management of the greater sage-grouse. An umbrella species is generally defined as one whose conservation confers protection to a large number of naturally co-occurring species (Roberge and Angelstam 2004). The umbrella species concept, defined as a way to use species requirements as a basis for conservation planning, has received growing attention. The assumption is that this concept will identify the minimum size for conservation areas and set minimum standards for the composition, structure, and processes of the ecosystem to be included. Wildlife biologists have expressed concerns regarding the validity of the umbrella concept to protect other species (Simberloff 1998, Roberge and Angelstam 2004, Ozaki et al 2006). Concerns with this concept revolve around the ability to verify that the co-occurring species are being protected as well. In some cases, the umbrella species was able to adapt to changes in habitat conditions, while the co-occurring species could not, and that larger home ranges for umbrella species affected their ability to adapt (Roberge and Angelstam 2004, Ozaki et al. 2006). A study is underway to determine if the Wyoming greater sage-grouse umbrella concept is providing conservation for non-game species, and at what spatial scale for the co-occurring species (Wyoming Cooperative Fish and Wildlife Research Unit 2014). This study will be valuable to determine if the objectives for the co-occurring species within the umbrella concept are being met through the greater sage-grouse conservation.

### **3.9.4 Fishing and Hunting**

Campbell County harbors diverse and abundant game and non-game fish and wildlife populations, contributing to the long-established customs of fishing, hunting, and aesthetic enjoyment of wildlife in the county. These activities have been a historical force for more than 130 years, and contribute significantly to its tax base (refer to Economics section).

### **3.9.5 Fish**

The Powder River Basin (with its tributary, the Little Powder River), the Cheyenne River Basin, and the Belle Fourche River Basin, intersect areas of Campbell County that overlap with the Yellowstone River Basin and the Northeastern Missouri River Basin, two of the six basins described in the SWAP (WGFD 2017a), The SWAP addresses aquatic conservation priority areas (WGFD 2017b, 2017c) within these river basins (Figure 3-17), which in many cases overlap with the SHP and the SGCN areas. The two aquatic conservation areas are the Black Thunder Creek, covering 80,552.9 acres, and the Prairie Stream and Riparian Corridors, covering

37,860.5 acres. Conservation priority areas include drainages where native fish diversity is highest in the basin and includes streams where the density of rare species are high.

Sport and consumptive fishing are common practices in Wyoming (Wyoming State Parks and Cultural Resources 2014). In the Little Powder River and Belle Fourche River basins in Campbell County, many fish species that have been as sport fish or as forage to provide diverse fishing opportunities, and several native and non- native game fish species occur in both basins (Hubert 1993), including black bullhead, channel catfish, stonecat, small-mouth bass, rock bass, green sunfish, sauger, and walleye.

Larger-bodied native game species may occupy the main stem Little Powder River only seasonally (Barrineau et al. 2007), while game fish habitat is restricted to the small, abundant impoundments and to some few stream segments in the Belle Fourche River. Good trout fishing occurs in most streams and lakes on the east side of the Big Horn Mountains, in the northwestern corner of the county. Small waters like Little Thunder Reservoir on the TBNG provide opportunities for bluegill and largemouth bass. Coldwater lakes and streams close to mountain ranges, warm water ponds and reservoirs, and cool waters throughout the county, such as the Panther Pond and the Gillette Fishing Lake, offer opportunities for a variety of cold, cool, and warm water species such as the smallmouth and largemouth bass, and bluegill (WGFD 2011).





Figure 3-17. Aquatic conservation areas in Campbell County.

### 3.9.6 Big Game

Big game species expected to occur in suitable habitats throughout Campbell County include pronghorn, white-tailed deer, mule deer, and elk. The WGFD has identified various ranges for big game species; the ones that occur in Campbell County include the following:

- a) Summer or Spring-Summer-Fall use is when a population or portion of a population of animals uses the documented habitats in this range annually from the end of previous winter to the onset of persistent winter conditions.
- b) Winter use is when a population or portion of a population of animals uses the documented suitable habitat sites in this range annually and in substantial numbers only during the winter period.
- c) Winter-Yearlong use is when a population or a portion of a population of animals makes general use of the documented suitable habitat sites in this range year round. During the winter months, there is a considerable influx of additional animals into the area from other seasonal ranges.
- d) Yearlong use is when a population of animals makes general use of suitable documented habitat sites in the range year round. Animals might leave the area under severe conditions.
- e) Calving Areas are documented birthing areas commonly used by females. It includes calving areas and fawning areas. These areas might be used as nurseries by some big game species.

These range categories are used in the range distribution maps for the species described below in Table 3-13, and the total acres utilized by each big game species in each hunt unit is summarized in Table 3-14.

**Table 3-13. Range distribution areas in acres for big game species in Campbell County, Wyoming.**

Range Type	Acres by Species			
	Pronghorn	Mule Deer	White-tailed Deer	Elk
Crucial Winter	N/A	N/A	N/A	6,438.9
Crucial Winter/Yearlong	N/A	N/A	N/A	18,629.2
Non-important Habitat	366,019.9	412,933.0	2,919,967.4	451,417.2
Spring/Summer/Fall	24,841.4	N/A	N/A	N/A
Winter	156,966.8	N/A	N/A	N/A
Winter/Yearlong	1,130,801.1	997,482.4	4,670.2	2,935.6
Yearlong	1,388,713.1	1,656,926.8	142,704.7	122,854.6
<b>Total</b>	<b>3,067,342.2</b>	<b>3,067,342.2</b>	<b>3,067,342.2</b>	<b>626,275.5</b>

N/A = not applicable

**Table 3-14. Acres per hunt area and herd for big game species within Campbell County, Wyoming.**

Hunt Area Name	Herd Name	Acres by Species			
		Pronghorn	Mule Deer	White-Tailed Deer	Elk
Bear Creek	North Converse	173,878.0			
Bill	Cheyenne River	172,886.1			
Black Thunder	Rochelle Hills				291,790.2
Campbell	Powder River		863,583.1	863,583.1	
Clarkelen	Pumpkin Buttes		334,166.7	334,166.7	
Clearmont	Clearmont	11,458.4		11,458.4	
Clearmont	Powder River		11,458.4		
Crook	North Black Hills	1,490.0	1,490.0	1,490.0	
Douglas	Central			173,937.8	
Douglas	North Converse		173,937.8		
Fortification	Fortification				149,768.6
Gillette	Gillette	990,835.7			
Lost Springs	N/A				457.5
Non-Herd Unit	N/A				2,433,183.0
North Black Hills	Black Hills				7,061.0
Northwest Gillette	Powder River		621,148.3	621,148.3	
Pine Ridge	Pine Ridge				12,195.7
Pumpkin Buttes	Pumpkin Buttes	729,021.7	394,069.1	394,069.1	
Rockypoint	North Black Hills	285,355.0			
Rochelle Hills	Rochelle Hills				172,886.2
Rozet	North Black Hills	207,814.6			
South Upton	Cheyenne River	5,401.4			
Teckla	Central			172,886.2	
Teckla	Cheyenne River		172,886.2		
Thunder Basin	Central			489,201.3	
Thunder Basin	Cheyenne River		489,201.3		
Thunder Basin	Highlight	489,201.3			
Upton-Four Horse	Cheyenne River		5,401.3	5,401.3	
<b>Totals</b>		<b>3,067,342.2</b>	<b>3,067,342.2</b>	<b>3,067,342.2</b>	<b>3,067,342.2</b>
			<b>2</b>		

N/A = not applicable

### 3.9.6.1 Pronghorn

This species is most abundant in short-and mixed-grass habitats compared to more xeric habitats (Figure 3-18). Some pronghorn make seasonal migrations between summer and winter habitats, but these migrations are often triggered by availability of succulent plants and not by local weather conditions (Fitzgerald et al. 1994). According to the 2013 Big Game Job Completion Report for Sheridan Region, management objectives for the pronghorn herds in Campbell County are generally below the desired post hunting season population level, with the exception of the Pumpkin Buttes herd (WGFD 2014b). The pronghorn herds in Campbell County have only been below the management objectives for approximately one to two years as a result of the heavy spring snows and cold in the spring of 2009 and 2010.

### 3.9.6.2 Mule and White-Tailed Deer

Mule deer are distributed throughout the seasonal ranges, occurring in mountains and associated foothills, broken hill country, and prairie grasslands and shrublands (Clark and Stromberg 1987; Figure 3-19). White-tailed deer use woody riparian habitats along creeks and rivers for forage and



cover (Figure 3-20). Both species use a variety of habitat types seasonally. Browse and herbaceous vegetation constitute the majority of their diet (Fitzgerald et al. 1994). Mule deer tend to be more migratory than white-tailed deer, traveling from higher elevations in summer to winter ranges that provide more food and cover. According to the 2013 Big Game Job Completion Report for Sheridan Region, management objectives for the mule deer herds in Campbell County are below the desired post hunting season population level and have been for approximately eight years (WGFD 2014b). The lower than desired populations is likely a result of habitat issues, competition from other ungulates for preferred forage, and declining fawn ratios influenced by weather factors since around 2008. White-tailed deer, on the other hand, are above the management objective for approximately the past 10 years. The presence of irrigated croplands and refuge areas allow the white-tailed deer populations to be maintained at levels greater than the management objectives.

### **3.9.6.3 Elk**

Elk are present throughout Wyoming in a variety of habitats, including coniferous forests, short- and mixed-grass prairies, and shrublands (Figure 3-21). In Campbell County, elk are concentrated in the Fortification Creek area west of Gillette, the Pine Ridge area in the south, the Rochelle Hills in the southeast, and smaller populations in the northern portion of Campbell County. The Fortification Creek elk population has been expanding their territory in recent years due to their increasing numbers and landowners are reporting elk on their property where they have not traditionally been seen.

Similar to other members of the deer family, this species relies on a combination of browse, grasses, and forbs, depending on their availability throughout the seasons. Elk tend to be migratory, with high variability in range of seasonal migrations, and some sedentary populations. All herd units within Campbell County have exceeded their population level goals, and increasing trends have been attributed to limited harvest due to lack of public access for hunting (WGFD 2014b).

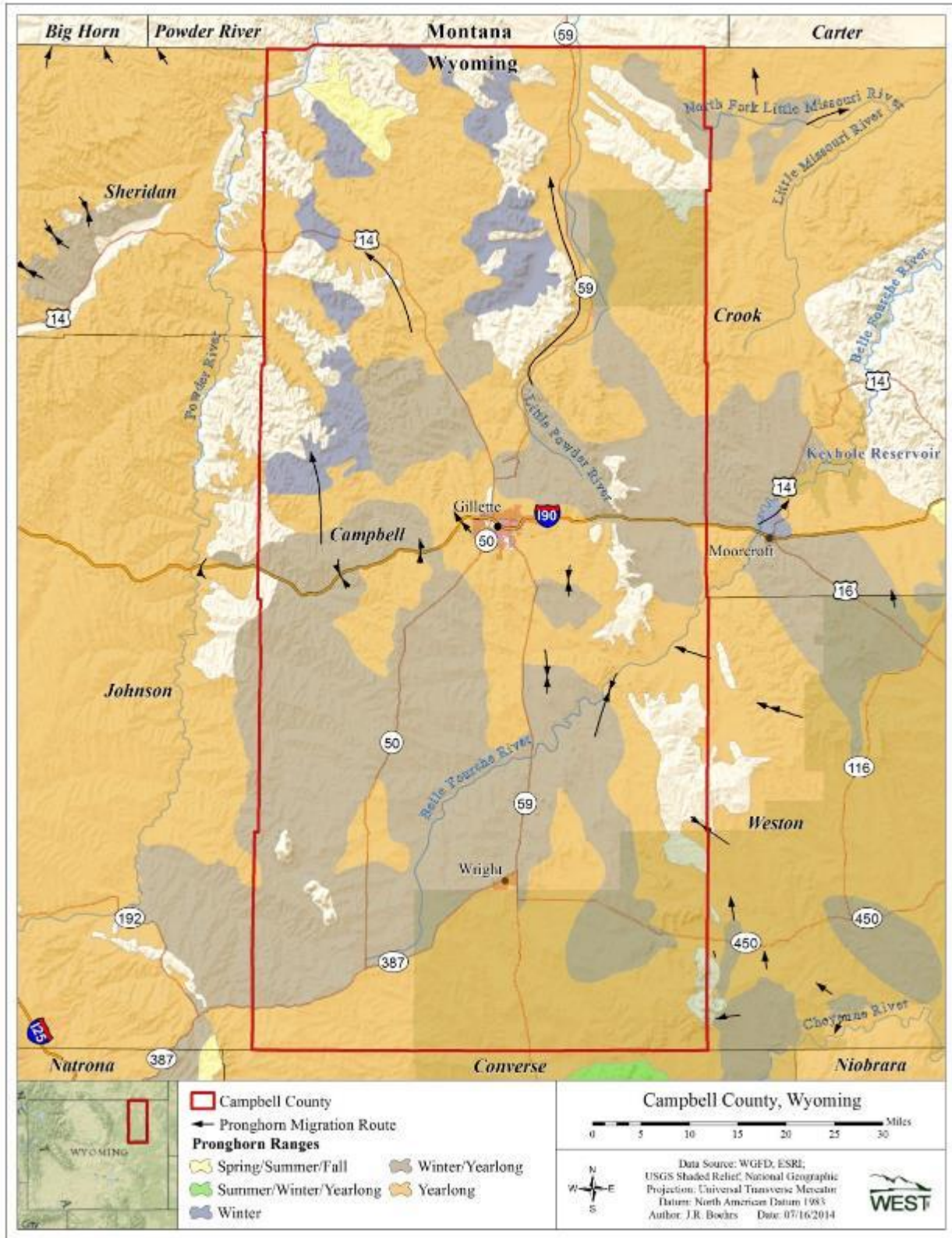


Figure 3-18. Range distribution of pronghorn in Campbell County.



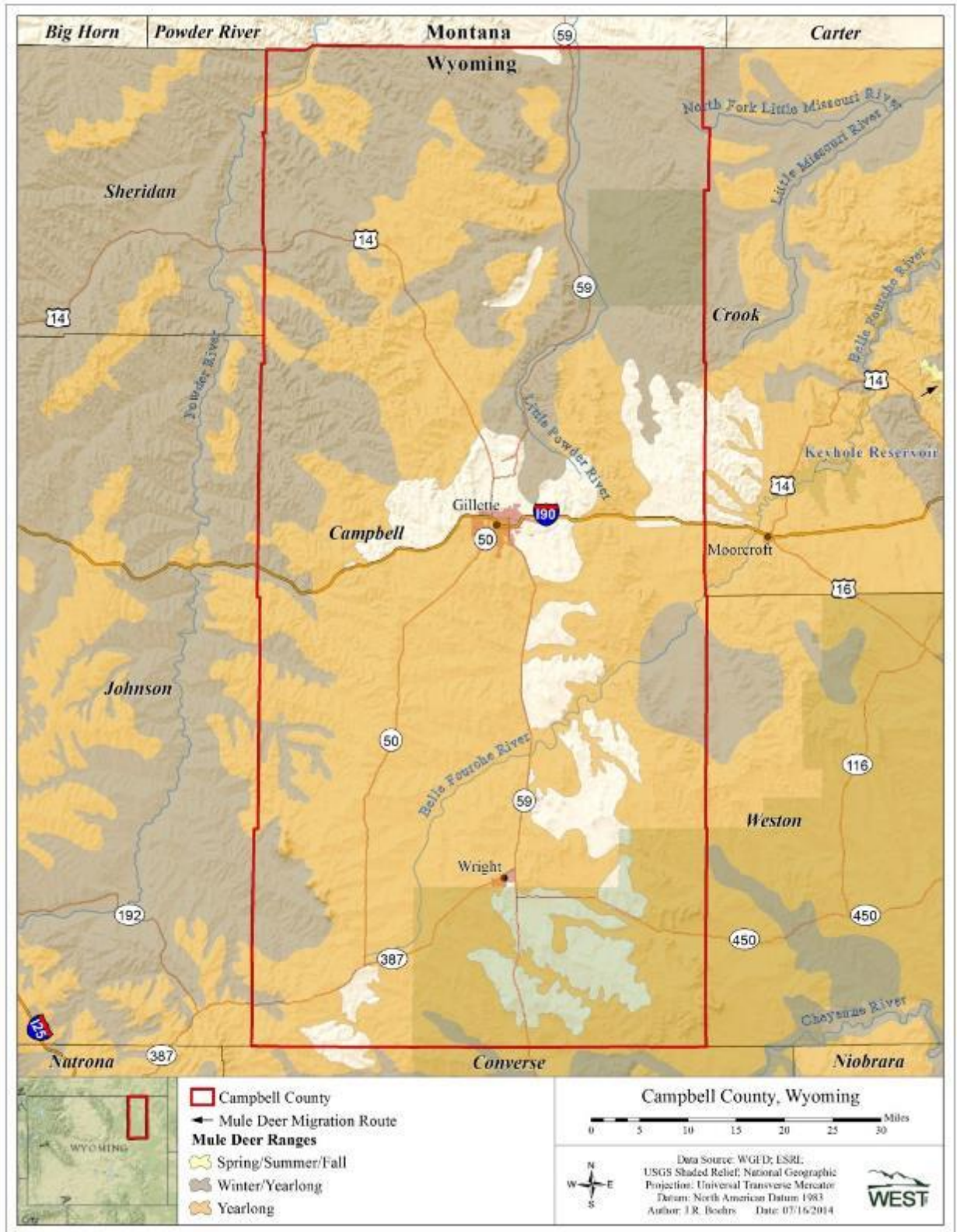


Figure 3-19. Range distribution of mule deer in Campbell County.

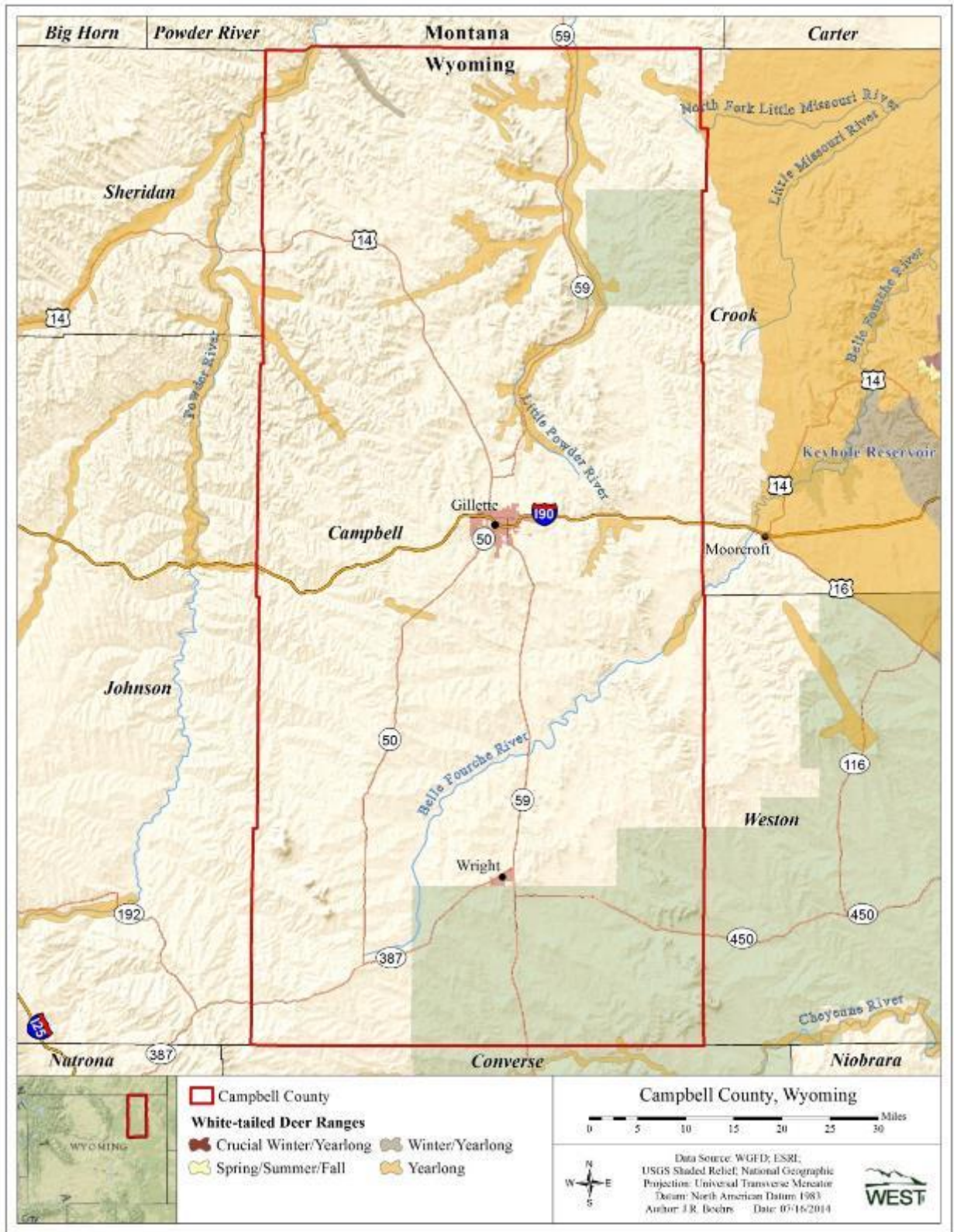


Figure 3-20. Range distribution of white-tailed deer in Campbell County



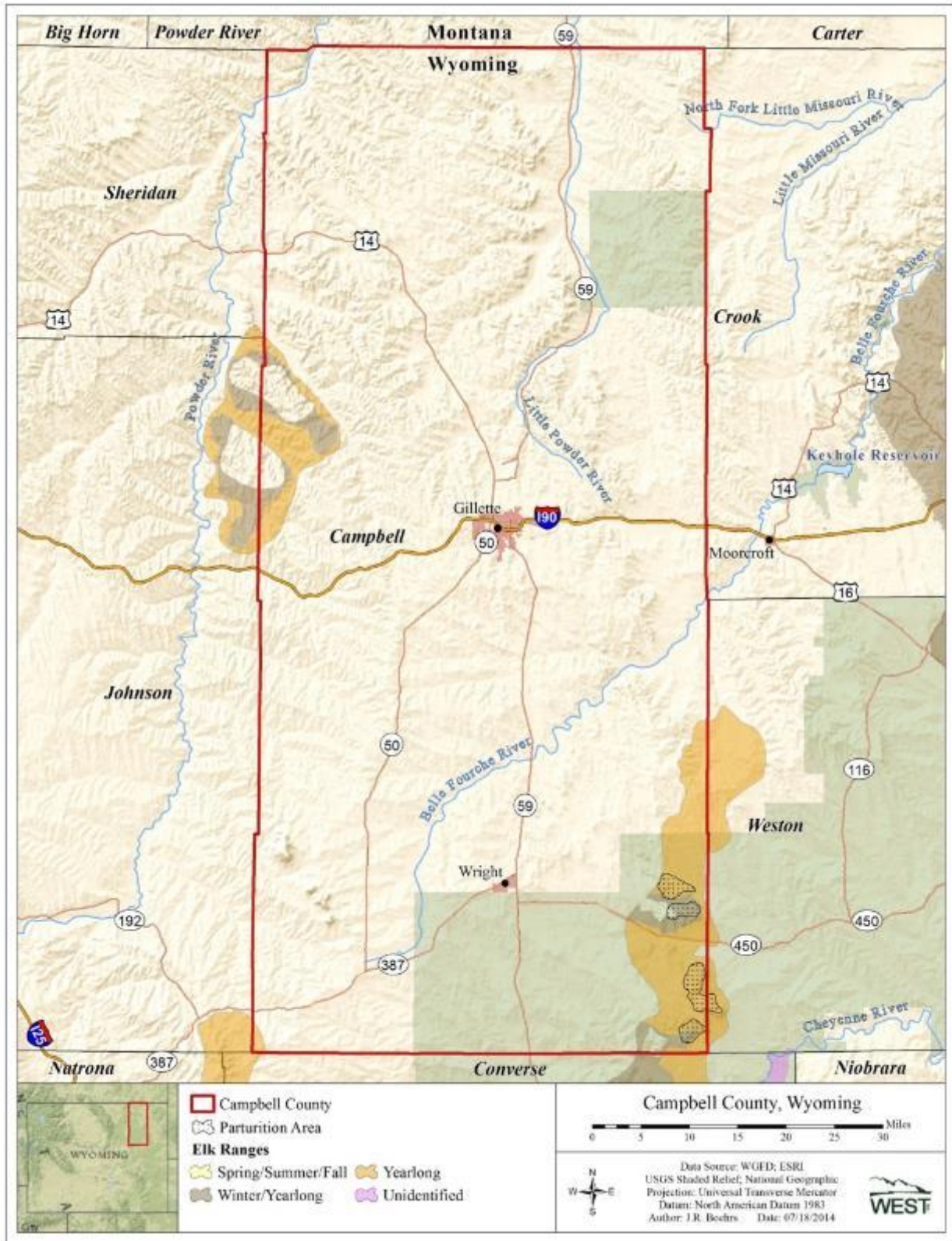


Figure 3-21. Range distribution of elk in Campbell County.

### 3.9.7 Game Birds and Small Game

Migratory birds, which may be legally taken during authorized seasons by properly licensed hunters, include doves, ducks, geese, mergansers, and rails (WGFC 2013). Migratory birds that may not be taken, possessed, transported, sold or bartered include all migratory birds as defined and protected under federal law, including bitterns, grebes, herons, egrets, kingfishers, loons, pelicans, insectivorous birds, and songbirds. All nongame birds in Wyoming are protected under the federal Migratory Bird Treaty Act of 1918 (MBTA), with the exception of non-native species. All these species or groups of species can be found in Campbell County (Orabona et al. 2021).

Wyoming has three species of cottontails (eastern, desert, and mountain) that are hunted, and one rabbit (pygmy rabbit) that is protected, all of which are present in Campbell County (Orabona et al. 2021). Eastern fox squirrels (reported in Campbell County) are often quite abundant within shelterbelts and stands of cottonwood trees along creek and river bottoms. Red squirrels, common in Wyoming's mountains, have not been reported in Campbell County and are rarely hunted due to poor table quality. Abert's squirrel (not reported in Campbell County) is protected and cannot be hunted in Wyoming (Orabona et al. 2012). Nongame mammals that are protected in Wyoming include the black-footed ferret, among others (WGFD 2013a).

### 3.9.8 Diseases

Emergence of infectious diseases often results from interactions among wildlife species, domestic animals, and zoonotic pathogens. Security and public health are threatened by wildlife hosts and vectors that share rangeland with domestic animals and present challenges to current regulatory approaches (Pérez de León et al. 2010). An understanding of the complex ecological relationships among species and between species and the environments that support disease transmission allows for quantification of risk to domestic and wild species, and subsequent implementation of preventative measures to reduce this risk.

WS works with federal and state wildlife, health, and agriculture agencies to monitor and conduct surveillance for diseases in wildlife that could impact agriculture or human health. Information obtained through disease surveillance in wildlife populations enables agencies to better prepare for and respond to outbreaks and emergencies. The wildlife disease biologist in Wyoming plays a supporting role with the WGFD, the Wyoming Livestock Board, and USDA Veterinary Services for in-state disease issues, such as chronic wasting disease and brucellosis. The disease biologist also coordinates and conducts statewide surveillance projects at the request of varied state agencies. Since 2005, WS-Wyoming has cooperated to conduct statewide surveillance for plague and tularemia. Statewide surveillance for the incidence of canine heartworm in wild canines demonstrated very low prevalence in Wyoming (USDA APHIS 2012).

- Avian influenza: This is a viral infection of birds caused by a group of influenza viruses (type A influenzas). These viruses naturally circulate in wild birds and are maintained in populations largely through fecal-oral contact (WGFD 2022).
- Brucellosis: This is a contagious zoonotic disease (a disease that can be transmitted from animals to humans) caused by the bacterium *Brucella abortus* and occurs in cattle, elk and

bison (Botzler and Brown 2014). In 2004 the Wyoming Brucellosis Coordination Team was formed to prepare a plan for the management of brucellosis Wyoming (Scurlock et al. 2010).

- Chronic Wasting Disease: This is a chronic, fatal disease of the central nervous system in mule deer, white-tailed deer, elk, and moose. CWD belongs to the group of rare diseases called transmissible spongiform encephalopathies (TSEs). These disorders are caused by abnormally folded proteins called “prions” (WGFD 2022).
- Plague: This disease is caused by the bacterium, *Yersinia pestis* which is contracted by animals (referred to as a “sylvatic plague”) and humans (referred to as “bubonic plague”). The common vector for the spread of the plague bacteria is through fleas and/or contact with infected or flea-carrying animal (USFS 2002).
- White nosed syndrome: This is an emerging fungal disease of bats in North America caused by the fungus *Pseudogymnoascus destructans* (Pd). Pd can be spread directly from bat to bat. It can also survive and grow in the environment, and from there spread from hibernacula substrates directly to bats. The fungus can also be spread from one location to another by fomites such as caving gear, shoes, and clothing (WGFD 2022).
- Rabies: This disease is caused by virus in the genus Lyssavirus (Blanton et al. 2011). Rabies is a progressive fatal neurologic disease and in people may manifest as general weakness, discomfort, headache, and fever. Rabies is a widespread zoonotic disease within the United States and control programs have been established since the 1950s (Gerhold and Jesup 2013).
- Tularemia, Rocky Mountain spotted tick fever, Lyme disease, and babesiosis: Adult ticks generally parasitize medium- and large-sized mammals, while larvae and nymphs feed on a wide variety of small- to large-sized mammals and ground-feeding birds (Cooley and Kohls 1944). Ticks are efficient vectors of numerous infectious disease agents to vertebrate animals, including livestock and humans, they have a broad range of hosts including humans, and are potential vectors of pathogens (Cooney and Burgdorfer 1974, Schulze et al. 1984, Campbell and Bowles 1994, Merten and Durden 2000, Childs and Paddock 2003).
- West Nile Virus: This is a mosquito-borne disease that can cause encephalitis or brain infection. West Nile virus is expanded from infected mosquitoes that produce their young in standing water. Birds are the natural vector host and serve not only to amplify the virus, but to spread it. Though less than one percent of mosquitoes are infected with West Nile virus, they still are very effective in transmitting the virus to humans, horses, and wildlife.

See the WGFD website for a complete list of wildlife diseases and information: <https://wgfd.wyo.gov/Wildlife-in-Wyoming/More-Wildlife/Wildlife-Disease/Wildlife-Disease-Information>

Campbell County believes that effective management of wildlife is best achieved by giving focused value for those who live with it. Therefore, incentives and assistance for protection of wildlife on private land should be encouraged. There must also be a positive correlation between the quality and benefit of the wildlife management tools applied to protect wildlife and the magnitude of the benefit achieved. The effect of the management tools applied to protect wildlife should be as small as practical to achieve the desired benefit. Wildlife management efforts shall reduce predation of sensitive species, maintain existing hunting and fishing opportunities,



increase opportunities within appropriate carrying capacities if warranted, decrease game damage conflicts, and generally balance wildlife numbers with other factions representing the custom, culture, and multiple use values of the county.

### **3.9.9 Campbell County Position Summary**

Based on the information regarding wildlife presented above, and the importance of resource extraction to the economy of Campbell County, it is the overall position of Campbell County to encourage and support current and future resource extraction and renewable energy activities within the county.

It is Campbell County's position that resource extraction can be performed in a responsible manner that allows wildlife to continue to flourish within the county. Campbell County does have concerns regarding the application of current and future protective buffers applied to wildlife habitat and elements (such as raptor nests). The buffers identify areas where the types and timing of activities are restricted or not permitted in an effort to protect wildlife. These buffers impact both the industry and the private landowner. Industry is required to develop operation plans to address these restrictions that can include altering work schedules or locations of infrastructure. Landowners may be restricted from allowing development to occur on their property. Because of the economic implications to the industry and private landowners, Campbell County requests that the application of any productive buffer be based on current data and that the economic implication of the buffer be evaluated. It is Campbell County's intentions to continue to work with stakeholders and state and federal agencies to further the dialogue related to the application of protective buffers.

### **3.10 Cultural/Historic/Paleontology Resources**

Campbell County supports the protection, study, and/or excavation of unique archeological, historical, and paleontological resources that occur in the county, while including the responsible stewardship of these resources through balancing resource protection with natural resource recovery and visitor values.

Prehistoric archaeological resources in Campbell County date from over 11,000 years ago to less than 200 years ago. Campbell County contains sites representing all five known prehistoric cultural periods within Wyoming (Kornfeld et al. 2010):

- Paleoindian Period (11,500-8,000 before present [BP])
- Early Plains Archaic Period (8,000-5,000 BP)
- Middle Plains Archaic Period (5,000-3,000 BP)
- Late Plains Archaic Period (3,000-1,500 BP)
- Late Prehistoric and Protohistoric Periods (1,500-200 BP)

The prehistory of Campbell County is the story of innovative and highly skilled groups of hunter-gatherers wresting a living from the land. These people used stone, wood, and bone tools, hunted large and small game, fished, and gathered diverse plant foods. The Paleoindian residents of the area may have hunted extinct mammals such as mammoth, mastodon, and extinct species



of bison, whereas later groups relied primarily on modern bison and pronghorn. Important prehistoric site types that occur within Campbell County include artifact scatters, stone circle sites, big game (usually bison) kill and processing sites, vegetable processing sites, rock alignments and cairns, and stone material procurement areas. Other significant, although less common, site types include human remains and cultural landscapes. The oldest sites are typically the rarest because they have had more time to be destroyed by natural processes. Inversely, more recent sites are more common. Although there is a tremendous amount of variation, substantial prehistoric sites are often found near reliable sources of water along major drainages and in close proximity to other valuable resources such as edible plants or sources of tool stone. Specific sites types (usually stone alignments and cairns) may be of special religious significance to Native American groups. These sites may qualify for Traditional Cultural Property (TCP) status. TCPs require some special consideration, but their management is governed by the same laws and regulations as other cultural resources.

Campbell County and the wider Powder River Basin region were also inhabited by no less than ten historic Native American tribes during the Late Prehistoric and Protohistoric Periods. Therefore, Campbell County acknowledges this land to be the traditional and ancestral hunting grounds of the Apsáalooke (Crow), Niitsítapi (Blackfeet), the Sutai & Tsistsistas (Cheyenne), the Oceti Šakowiŋ (The Council of Seven Fires: Lakota, Dakota, and Nakota), the Numakiki (Mandan), the Hiraacá (Hidatsa), the Sahnish (Arikara), and the Inuna-ina (Arapaho). Both prehistoric and historic sites in Campbell County may be related to extant Native American nations and therefore Campbell County Government may consult with Tribal Historic Preservation Offices (THPOs) or Tribal Cultural Resource Offices as needed.

The historic period of Campbell County begins approximately 200 years ago with the sporadic incursions and habitations of the earliest Euro-American fur trappers and explorers. The French fur trader Larocque followed the Powder River South from the Yellowstone in 1805 (Larson 1978) and represents the first well-documented Euro-American to traverse a small portion of what would later become Campbell County. Historic settlement of the region was driven by the fur trade until approximately 1840, at which point changing fashions and declining beaver populations sent the industry into a tailspin. The 1840s, 1850s, and 1860s, saw the establishment of emigrant trails within and near Campbell County and increasing hostility between the U.S. and Native Americans in the region. Hostilities faded in the 1870s and settlement in Campbell County began at this time. The City of Gillette was founded in 1891 and the area grew slowly for the first 20 years. The 1910s and 1920s were the heyday of the small homesteader in eastern Wyoming and Campbell County, although many of these homesteads failed during the drought and depression of the late 1920s and 1930s. Coal mining in Campbell County began as early as the 1890s when the Burlington Railroad entered the area, providing a more efficient way of shipping coal out of Wyoming to the Midwest and East Coast. Large-scale commercial mining began in the 1920s with establishment of Wyodak Mine, the oldest continuously operating surface coal mine in the United States. The energy industry came to dominate the economy of Campbell County more and more throughout the twentieth century, although agriculture remained important as well. Important historic site types in the area include rural ranches, homesteads, and settlements, urban buildings and associated infrastructure, mining sites, roads and trails, military sites, and sites associated with the fur trade and early exploration. Campbell County has invested in the Rockpile Museum to document and archive historic site information.

The Gillette Historic Preservation Commission (City of Gillette – Certified Local Government) may also be a consulting entity in any Section 106 reviews and generally regarding the preservation of cultural and historic sites.

The following are significant historic buildings and sites in Campbell County that are open to the public, as well as museums displaying information and artifacts pertaining to the historical, archaeological, and paleontological heritage of the area:

- The 1811 Astorian Expedition Route and Campsite (Interpretive sign at Mile Marker 70.22 on U.S. Highway 14/16 near Spotted Horse, Wyoming)
- The Bozeman Trail (Interpretive sign at Mile Marker 24.8 on State Highway 387 near Midwest, Wyoming)
- Burlington Lake and Burlington Ditch (McManamen Park, Gillette, Wyoming)
- The Gillette Post Office (301 South Gillette Avenue, Gillette, Wyoming 82716)
- 1936 Gillette City Hall (400 S. Gillette Avenue, Gillette, Wyoming 82716)
- The Rockpile Museum (900 West 2<sup>nd</sup> Street, Gillette, Wyoming 82716)
- The Wright Centennial Museum (104 Ranch Court, Wright, Wyoming 82732)
- Frontier Auto Museum (205 S. Ross Avenue, Gillette, Wyoming 82716)

The paleontology of Campbell County has been understudied relative to nearby locations in the Bighorn and Wind River Basin. This is not necessarily due to a lack of scientifically significant fossils in the area, but likely because of less exposure in Campbell County of paleontologically significant geology than these other locations due to higher vegetation densities and more soil development. The Wasatch Formation is the most significant fossil-bearing geologic unit in Campbell County, and it covers most of the southern and western portions of the county. Its Eocene deposits contain small mammal fossils, including fragmentary bones, isolated teeth, and more complete dentary/maxillary fragments in rarer cases. Older deposits in the Wasatch Formation contain more articulated material, including reptile fossils. The Fort Union Formation that is widespread in eastern Campbell County also contains locally abundant fossil vertebrates, invertebrates, and plants, albeit less consistently than the Wasatch Formation. The Campbell County Rockpile Museum also collects and displays fossils of importance and of interest to this region.

The preservation of archeological, historical, and paleontological resources shall be done in conjunction with the recovery of natural resources and minerals in the county. This can be accomplished by carefully assessing the sensitivity and importance of the resources relative to the economic and cultural impacts associated with land management decisions. Campbell County realizes there can be a balance of existing uses and the need to protect these resources. Nevertheless, private property rights or existing land uses, such as oil and gas extraction, mining, logging and harvesting of forest products, road maintenance, and grazing, should not be precluded due to efforts to protect archeological, historical, and paleontological sites. Impacts to such resources should be appropriately mitigated, pursuant to federal and state laws and regulations.



Campbell County recommends that priority be given to retention and display of locally recovered archaeological, historical, and paleontological resources from state or federal lands in Campbell County. Campbell County may cooperate with state and federal agencies to gain public access to these sites when a willing landowner has indicated interest in granting such access to notable sites, tribal use areas, and historic trails.

### 3.10.1 Policy

Make collaborative decision regarding identification, protection, and/or excavation of archaeological, historical, and paleontological resources.

### 3.10.2 Goals

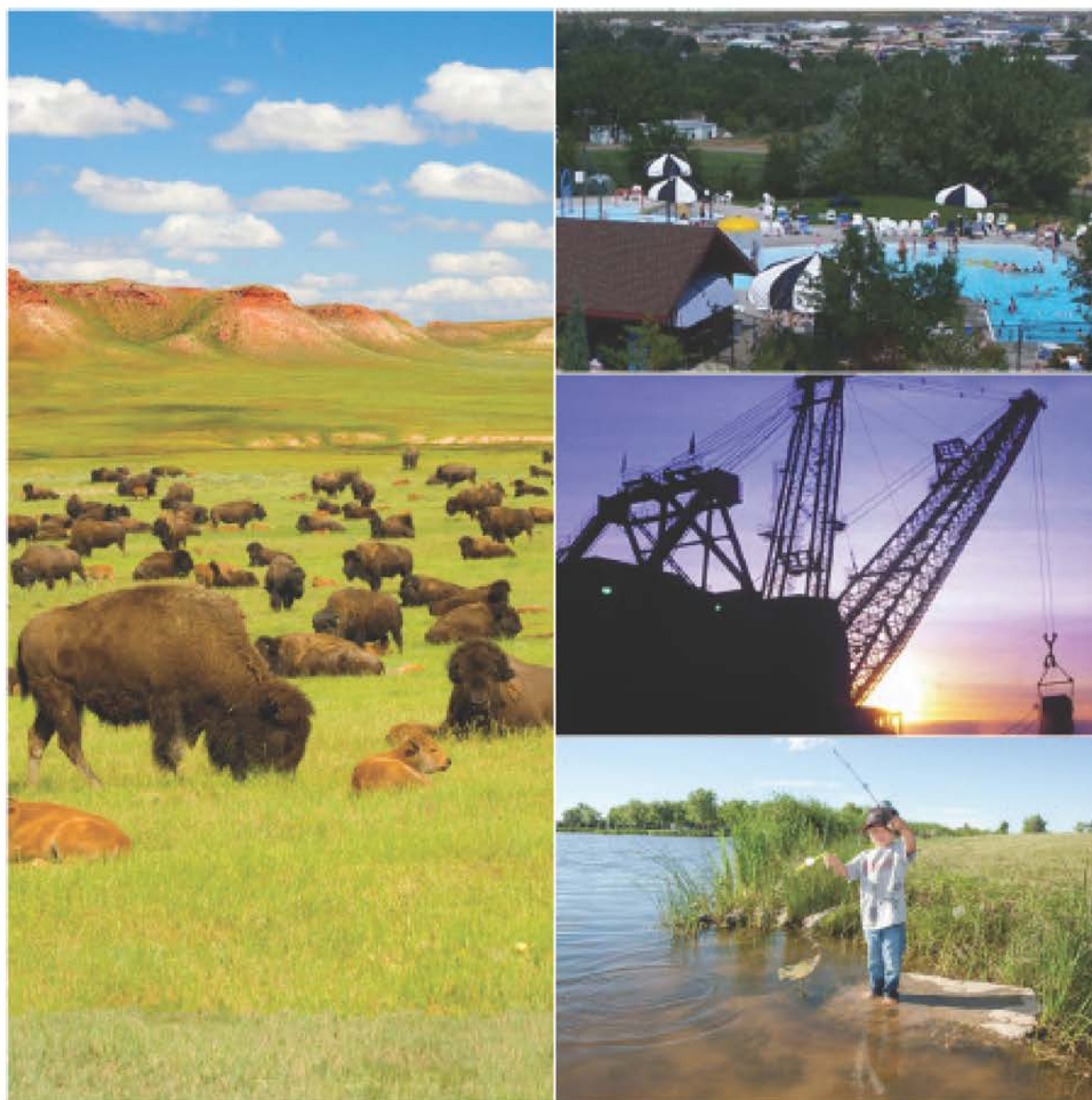
- Balanced economic viability of projects with the protection of archaeological, historical, and paleontological resources.
- The county supports the protection of private property rights in state and federal planning actions involving archaeological, historic, and paleontological sites.
- Maintaining the confidentiality of identified archaeological, historical, and paleontological sites on private lands, unless landowner gives written permission for public dissemination.

### 3.10.3 Objectives

- *State and federal agencies shall recognize Campbell County as a consulting party as described in Section 106 of the National Historic Preservation Act of 1966 and subsequent amendments. As a consulting party, Campbell County will request periodic review and comment on classification and management of significant cultural resources on federal lands in the county, and the impact of proposed land use actions on those sites.*

# Chapter 4

## ECONOMIC AND RESOURCE USES





## Chapter 4 – Economics and Resource Uses

### 4.1 Economics

Campbell County’s economy has historically revolved around ranching and energy resource development, especially coal mining and oil production. Although ranching and farming currently account for a relatively modest amount of income, jobs and assessed valuation in the county, this sector is important as a basic economic sector or engine of economic activity. Agriculture is also an important part of the NRLUP because of its extensive amount of land use, the interface of agricultural land use with state and federal property, and the pillars ranching represent to the Campbell County social and political structure.

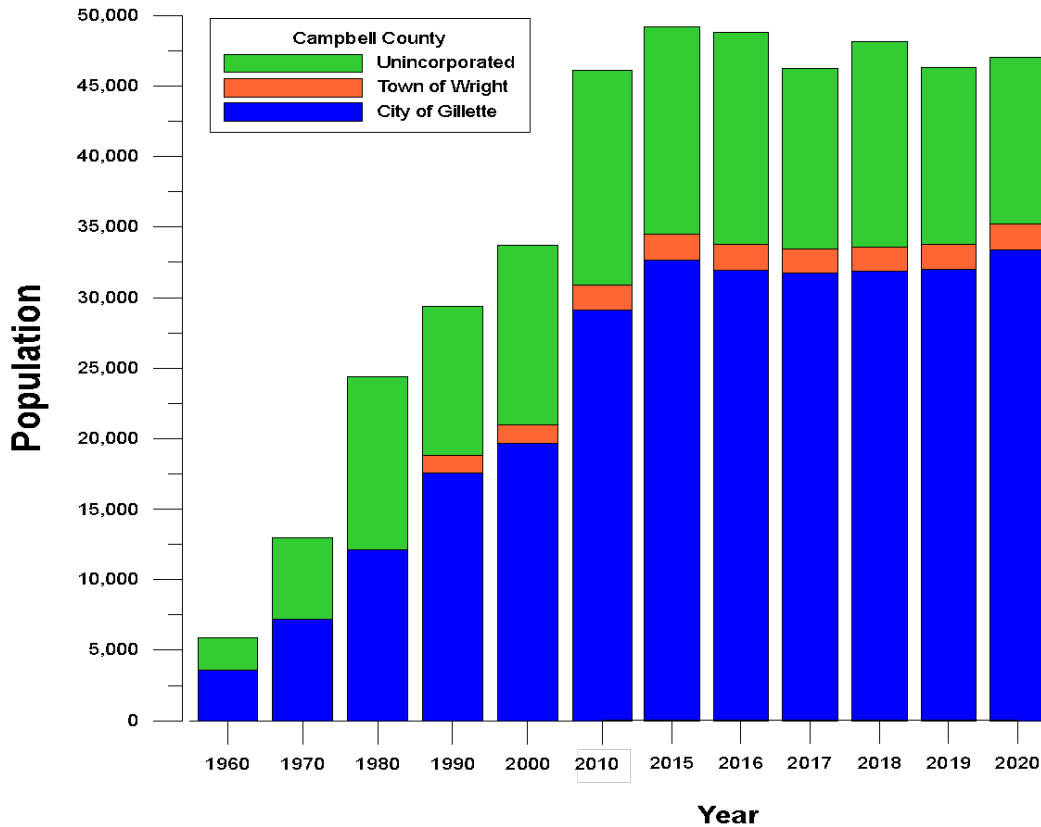
Since the 1980s, the energy industry has been the largest driver of the county’s economy and that situation continues today. As part of the Powder River Basin, the volume of Campbell County coal production is internationally noteworthy. Besides coal and oil, Campbell County is a large producer of oil and gas, and there is coal-fired electricity generation. Energy development activities have created the support for other energy-connected or “satellite” industries, as well as secondary stimulus to construction, retail and wholesale trade, transportation, accommodations and food service, and local government.

The benefits of the “boom” times of the energy industry include employment and income opportunities, as well as a general increase in local commerce and other economic activity. However, price volatility and other factors create “bust” periods, resulting in decreases in employment and economic activity. The county has experienced several “boom and bust” cycles over the last century, more commonly with the petroleum industry. Until recently, the coal mining sector has been relatively stable in Campbell County. The Livestock and Grazing, Mineral Resources, and Energy sections of the NRLUP provide additional detail about the specific customs and culture in Campbell County related to ranching, mineral extraction, and energy development. Those sections outline Campbell County’s goals specifically related to those topics. The Economics section presents a broader picture of the county’s economy, along with goals, policies, and objectives aimed at supporting the comprehensive set of industries in the county and ensuring the continuation of a variety of economic activities. Overall, Campbell County is aware and supportive of the role that mining and energy development play in the local economy. In addition, Campbell County encourages economic diversification and is interested in supporting activities that are sustainable, and will provide long-term economic stability to the area. Campbell County believes in the use of state and federal properties to support economic development or other activities that will result in additional employment, income, and revenue streams to jurisdictions at all levels.

#### 4.1.1 Population Trends

With a 2020 population of about 47,000 people (USCB 2020), Campbell County is currently the third most populous county in the State of Wyoming. The majority of county residents (about 71%) live in the City of Gillette and a small number of additional residents (about 1,800 people or 4% of the county’s population) live in the Town of Wright. The approximately 12,000 residents living outside Gillette or Wright live in rural, unincorporated areas throughout the

county; these areas may be more likely to feel the direct effects of development or other activities occurring on state or federal lands. Campbell County has experienced substantial increases in population since the 1960s, when mining in the area began in earnest. However, over the past decade annual population growth has slowed and the county’s population has remained relatively stable since 2010. Figure 4-1 illustrates the population growth in Campbell County since 1960.<sup>1</sup>

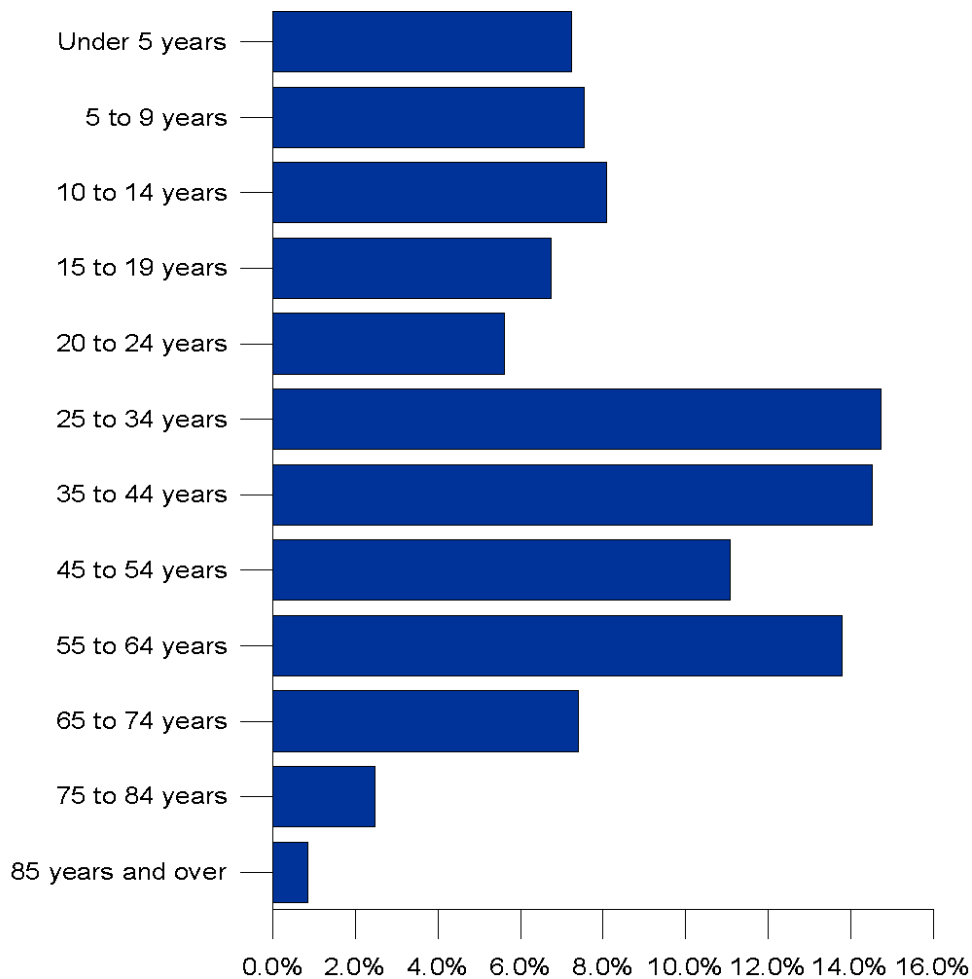


**Figure 4-1. Historical population in Campbell County, 1960 – 2020.**

Changes in the county’s population are due to a number of factors, including natural population change (births minus deaths) and net migration (movement into and out of the county). Natural population change has historically been a small portion of the overall change in the county’s population; since 2000, births have exceeded deaths by between about 350 to 550 people per year (Wyoming Department of Administration and Information 2020a). In many years, net migration into Campbell County has been a much larger component of the county’s overall population change; for example, in 2009, in-migration added over 2,200 residents to Campbell County (4.9% of the population), while in 2017, out-migration resulted in the loss of over 2,700 residents (about 5.6% of the population). Large swings in migration into and out of Campbell County have largely been associated with changes in the energy industry.

<sup>1</sup> As of late 2021, the Wyoming Department of Administration and Information had not updated their population projections for the state or for counties to reflect the demographic data available from the 2020 Census.

Overall, the residents of Campbell County are relatively young, with a median age of about 35 years, compared to a statewide median age of about 38 years (Wyoming Department of Administration and Information 2020b). This is consistent with the type of work available in the county, mainly mining related, the majority of which is physically demanding and more likely to attract younger workers. Figure 4-2 presents an age distribution of the Campbell County population. Almost 30% of the county’s population is 19 years of age or younger; children make up a large portion of total county residents and require a considerable amount of county investment, e.g., educational services, social services, or other types of county-funded services. A smaller portion, about 11%, of residents are elderly, aged 65 years or more; this group typically requires some level of county-supported services. The vast majority of Campbell County citizens are of working age and between the ages of 25 to 55 years.



**Figure 4-2. Age distribution of Campbell County residents, 2019.**

#### 4.1.2 Housing Availability and Price

As the population of Campbell County has grown over time, so too has the number of housing units, as shown in Table 4-1.

**Table 4-1. Number of housing units in Campbell County, 1980-2019.**

Year	Campbell County	
	Housing Units	Annual Growth
1980	9,505	NA
1990	11,538	1.96%
2000	13,288	1.42%
2010	18,955	3.62%
2019	20,399	0.82%

The pace and type of energy development activities often dictate the demand for various types of housing units. Coal mining workers often seek more permanent type housing, such as single-family homes and apartments. Petroleum industry workers will generally look for more temporary type of units, such as motels, mobile homes, apartments, and even campers. The majority of housing units in Campbell County are single family homes (61%), about 21% are mobile homes, and about 12% are apartments (Wyoming Housing Database Partnership 2021). As of 2019, about 73% of occupied housing units were owner-occupied and the remaining 27% were renter occupied. Vacancy rates in Campbell County have been about 13% in recent years; about 60% of vacant units are available for rent or sale, others are generally for seasonal use.

Between 2015 and 2019, the median value of owner-occupied housing units in Campbell County was about \$222,700, only slightly higher than the statewide median of about \$220,500. Rental rates for apartments, mobile homes, and houses in Campbell County have been similar to, or slightly lower than, the statewide average rates for those types of properties for the last several years.<sup>2</sup> For the fourth quarter of 2020, the average rental rate for an apartment in Campbell County was \$709 per month, about 10% lower than the statewide average of \$790 per month; a single-family home in Campbell County rented for an average of \$1,118, about 2% lower than the statewide average rental rate for a similar dwelling (Wyoming Department of Administration and Information 2021).

### 4.1.3 Employment and Income Data

Total employment in Campbell County has grown substantially since 1970, from about 6,000 jobs in 1970 to over 31,800 jobs by 2020 (U.S. Department of Commerce 2021a).<sup>3</sup> Many industries in the county have experienced considerable growth in employment over that period, notably the mining sector, although that trend has changed in recent years. Other industries have seen more muted growth; the agricultural sector has realized only small gains over time. Table 4-2 provides the employment changes in certain key sectors of the economy between 1970 and 2020.

<sup>2</sup> That was not the case prior to 2016, when rental rates were consistently higher in Campbell County as compared to the state. Rental rates for apartments, single-family homes and mobile homes in Campbell County are influenced by activity in the county's energy sector.

<sup>3</sup> Employment in Campbell County decreased between 2019 and 2020, likely due, in part, to the effects of the COVID-19 global pandemic.



**Table 4-2. Campbell County employment by industry, 1970-2020.**

<b>Industry</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>% of Total (1970)</b>	<b>% of Total (2020)</b>
Mining	1,221	4,412	4,863	5,694	8,978	5,760	20.3%	18.1%
Agriculture	682	658	612	675	793	926	11.3%	2.9%
Construction	592	2,641	953	2,018	4,288	2,466	9.8%	7.8%
Retail Trade	1,051	2,378	2,940	3,527	3,066	3,218	17.4%	10.1%
Government	785	1,763	3,005	3,420	4,587	4,856	13.0%	15.3%
All Others	1,695	5,001	6,286	7,950	14,632	14,580	28.1%	45.8%
<b>Total Employment</b>	<b>6,026</b>	<b>16,583</b>	<b>18,659</b>	<b>23,284</b>	<b>36,344</b>	<b>31,806</b>		

Table 4-3 presents annual employment data for key industries in Campbell County between 2010 and 2020; that data shows fluctuations in several industries, including the mining and construction sectors.<sup>4</sup> Over the last decade, employment in the mining sector peaked at almost 9,500 people in 2014, after which mining employment in Campbell County steadily decreased to about 5,800 jobs by 2020. Fluctuation in the mining industry often leads to changes in employment in other industries; for example, employment in the construction industry also peaked in 2014 and has decreased since. Employment in the retail trade industry has remained relatively stable over the past 10 years.

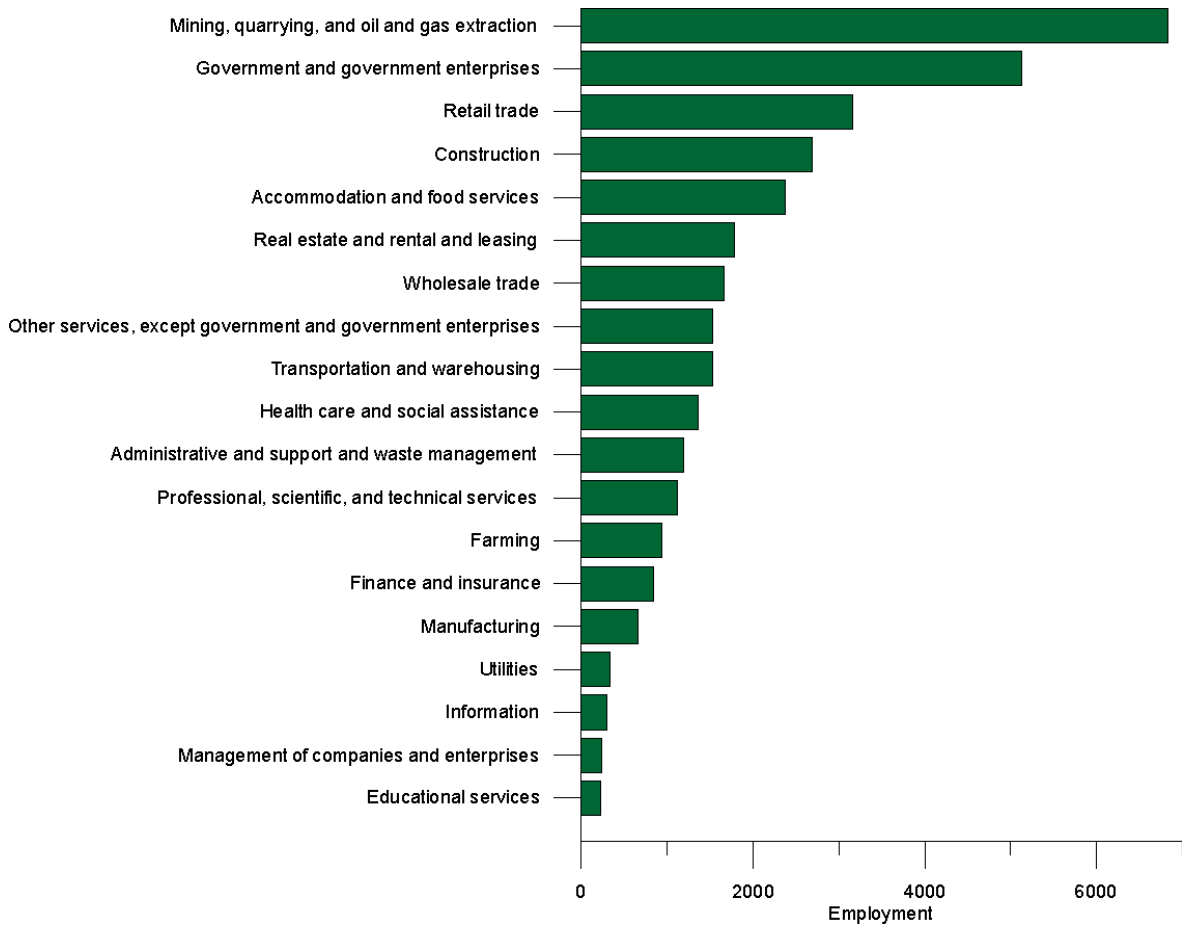
**Table 4-3. Campbell County employment by industry, 2010-2020.**

<b>Industry</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Mining	8,978	9,258	9,634	9,262	9,482	8,884	7,338	7,155	7,000	6,759
Agriculture	793	850	887	882	902	923	932	950	926	942
Construction	4,288	3,073	3,039	2,841	3,373	3,192	2,675	2,471	2,620	2,657
Retail Trade	3,066	3,078	3,151	3,174	3,155	3,344	3,208	3,129	3,120	3,116
Government	4,587	4,736	4,883	5,055	5,215	5,332	5,359	5,168	5,135	5,138
All Others	14,632	15,183	15,357	15,468	15,893	15,821	14,985	14,751	15,174	15,535
<b>Total</b>	<b>36,34</b>									
<b>Employment</b>	<b>4</b>	<b>36,178</b>	<b>36,951</b>	<b>36,682</b>	<b>38,020</b>	<b>37,496</b>	<b>34,497</b>	<b>33,624</b>	<b>33,975</b>	<b>34,147</b>

In 2019, mining employment made up almost 20% of total employment in Campbell County (6,832 employees), more than any other industry.<sup>5</sup> Figure 4-3 depicts employment by industry for Campbell County in 2019.

<sup>4</sup> The relatively low employment levels seen in 2020 were likely due, in part, to the COVID-19 global pandemic.

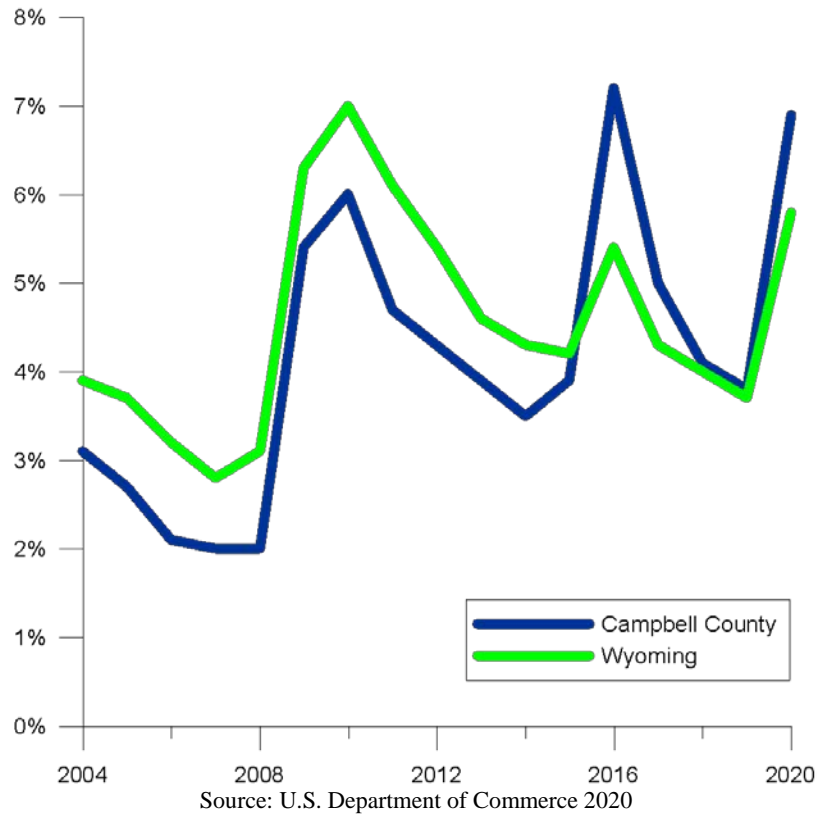
<sup>5</sup> As noted previously, 2020 employment patterns were likely influenced by the effects of the COVID-19 pandemic. Employment data for 2019 may be more reflective of typical conditions in Campbell County in recent years.



Source: U.S. Department of Commerce 2020

**Figure 4-3. Campbell County's employment by industry, 2019.**

Historically, economic conditions in Campbell County have resulted in relatively low unemployment rates. Unemployment rates in the county have been lower than those of Wyoming, even during recessionary periods or other times of reduced energy activity. However, in more recent years (since 2016), Campbell County has experienced slightly higher unemployment rates than the state. As of mid-2021, Campbell County's unemployment rate was 6.8%, compared to 5.6% for the state as a whole. Figure 4-4 offers a comparison of unemployment rates in Campbell County and Wyoming through 2020, the last complete year of available data.



**Figure 4-4. Historical unemployment rates in Campbell County and Wyoming, 2004 – 2020**

Campbell County is currently home to about 1,480 business establishments, including 173 in the construction industry; 169 in retail trade; 130 in professional, scientific and technical industries; and 120 in the mining, quarrying and oil and gas extraction industries (USCB 2019). As of 2020, the largest employers in Campbell County included a number of energy, mining, mining support companies, and governmental agencies, including the Campbell County School District, Peabody Energy, Thunder Basin Coal, Campbell County Health, and Navajo Transitional Energy Company (Energy Capital Economic Development 2020).

Farming and ranching activities take place on almost 2.9 million acres and over 640 farms in Campbell County. Livestock production and sales (\$67.3 million) made up about 96% of total agricultural activity and related revenues (\$69.9 million) in the county in 2017. The number of acres used for agricultural purposes was up slightly in 2017 as compared with 2012, but the number of farms decreased by about 100 (USDA NASS 2017).

The average wage per job in the county has historically been higher than the statewide average, reflecting the existence of relatively high paying mining related jobs. In 2019, the average wage in Campbell County was about 20% higher than that of the state (U.S. Department of Commerce 2021a).<sup>6</sup> In 2019, the median household income in Campbell County was about

<sup>6</sup> That pattern continued in 2020, when the average wage in Campbell County exceeded that of the state by about 15%. However, employment and wages across the state were affected by the global COVID-19 pandemic in that year; therefore, wage comparisons for 2020 may not reflect more typical conditions seen in recent years.

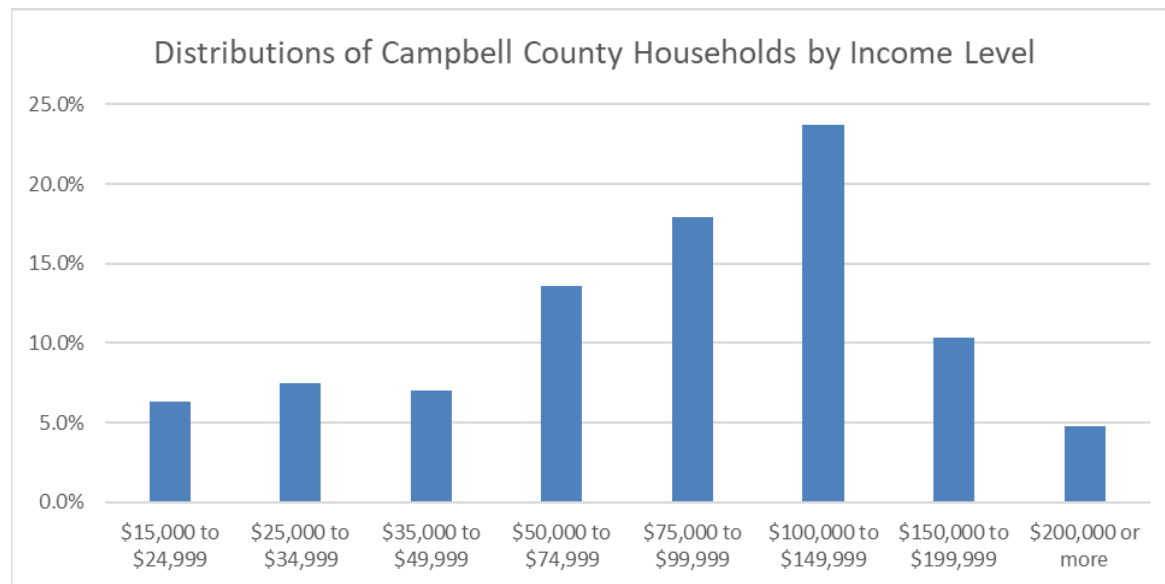
\$82,700, which was about 29% higher than that of Wyoming’s 2019 median household income, but was also about 5.5% less than the median household income in the county in 2010 (after adjustment for inflation). Per capita incomes in Campbell County have historically been higher than or similar to those of the state; however, that trend began reversing in 2015. Since that time, per capita income in Campbell County has been about 14% less than for the state. Table 4-4 provides wage and income information for Campbell County and Wyoming.<sup>7</sup>

**Table 4-4. Historical wages and income levels for Campbell County and Wyoming, 1970-2020.**

Year	Average Wage per Job		Median Household Income		Per Capita Income	
	Campbell County	Wyoming	Campbell County	Wyoming	Campbell County	Wyoming
1970	\$6,676	\$6,070	\$10,836	\$8,486	\$3,553	\$4,038
1980	\$18,682	\$15,335	\$26,060	\$19,994	\$13,924	\$11,612
1990	\$25,622	\$20,058	\$37,055	\$27,096	\$18,433	\$18,147
2000	\$33,389	\$27,138	\$49,536	\$37,892	\$27,789	\$29,607
2010	\$55,643	\$42,652	\$76,576	\$53,512	\$51,153	\$46,638
2019	\$60,789	\$50,752	\$82,659	\$64,049	\$54,143	\$61,065
2020	\$59,946	\$52,051	NA	NA	\$53,932	\$61,855

Historical wage and income data offers a picture of the economic conditions affecting the average county citizen. Figure 4-5 presents a distribution of Campbell County households by income level. About 16% of households had an income of \$25,000 or less as of 2019. These households may be ones which require additional financial or other types of support from various Campbell County agencies. About 55% of households had incomes between \$50,000 and \$150,000, and about 15% of households earned more than \$150,000 per year.

About 7.7% of the Campbell County population lived below the poverty level in 2019. The portion of county residents below the poverty level was lower than that of Wyoming as a whole, which had a poverty rate of 10.1% at that time.



**Figure 4-5. Distribution of Campbell County households by income level, 2019.**

<sup>7</sup> Median household income for 2020 was not available from the USCB at the time this report was prepared.

#### 4.1.4 Cost of Living

Historically, the cost of living in Campbell County has been higher than the state as a whole (Wyoming Department of Administration and Information 2021). This phenomenon was mainly due to higher costs for housing as compared to some other areas of the state, although food, medical care, and other costs in Campbell County have also been higher than the statewide average. High costs of living are not unusual in areas that experience rapid population and employment growth, along with higher income levels; those factors increase the demands for available housing and place pressures on prices for other goods and services. Since about 2017, the overall cost of living in Campbell County has been on par with that of Wyoming, mainly due to decreases in housing prices (as compared to previous years and as compared to other areas of the State). As of mid-2021, the cost of living in the county was about 1% lower than the statewide average.

#### 4.1.5 Fiscal Conditions

In fiscal year 2020, Campbell County received about \$105.2 million in revenue from a number of sources, including property taxes, sales and use taxes, other tax sources, grants and contributions, and other revenue sources (Campbell County 2020a). Property and production taxes accounted for about \$47.4 million, nearly half of total revenues. In that same year, county expenditures amounted to about \$104.7 million, including capital outlays and debt service. About 21% of total expenditures went towards public safety, including the Sheriff's Office, emergency management, and the Joint Powers Fire Board. Another approximately 12% went towards public works, including road and bridge projects.

Since 2018, property taxes collected by the county have averaged about \$47 million per year, reflecting a decrease from previous years (property tax revenue was \$58.5 million in 2017). Property tax revenues have also decreased as a proportion of total revenues (56.6% in 2017 to 45.1% in 2020). Sales and use tax revenues have increased in recent years, growing from about \$15 million in 2017 to over \$18 million in 2020. Total county revenues from all sources have remained relatively stable over the last several years, reaching \$105.2 in 2020 (Campbell County 2017, 2018, 2019, 2020a).

The county's annual expenditures fluctuate from year to year based on a variety of factors, including planned capital investments. Total county expenditures ranged between about \$83.7 million in 2018 to about \$104.7 million in 2020. (Campbell County 2017, 2018, 2019, 2020a).

#### 4.1.6 County Facilities and Services

Campbell County offers a wide variety of public services and maintains a number of facilities. Services relevant to this NRLUP include the Campbell County Sheriff's Office and the Campbell County Fire Department. These agencies provide additional law enforcement services and emergency response services to state and federal lands in Campbell County.

- The Campbell County Sheriff's Office provides law enforcement, detention, and administrative service to the citizens of Campbell County. The Sheriff's Office includes 163 full-time staff, including five deputies stationed in the Wright area. Facilities include a county detention center with an average daily inmate population of about 160 people and capacity to house about 300 inmates. Sheriff's Office staff responded to almost 11,000 calls in 2020 (Campbell County 2020b).
- The Campbell County Fire Department is responsible for fire, rescue, emergency medical services, and hazardous materials response calls over about 5,000 square miles of land, including Gillette, Wright, and rural portions of the county. The department includes 29 career firefighters and over 170 volunteer firefighters. Volunteer firefighters provide county-wide coverage from 10 stations and 11 wildland support stations throughout the county. The career staff runs 24-hour coverage out of Fire Station 1 in Gillette and Station 9 in Wright and augments volunteer stations. The Department responded to about 2,300 calls in 2020 (Campbell County 2020b).

#### **4.1.6.1 Social Setting**

In addition to the generally positive economic conditions, a number of other factors contribute to the quality of life for Campbell County residents. Consumer expenditures, driven by relatively high income levels, have attracted additional retail outlets, restaurants, and other commercial operations. Tax revenues and funding from other sources have allowed Campbell County, Gillette, and Wright to invest in public infrastructure projects and other non-mining related ventures to maintain and improve the quality of life, including educational, recreational, and social opportunities for county residents. Both Campbell County Memorial Hospital and Gillette College have undergone expansions of facilities and programs. Campbell County offers a number of recreational opportunities and events facilities.

Despite the numerous benefits from the energy sector, there are some challenges to the county's social conditions from this development. New residents bring different backgrounds and values compared with existing residents. The promise of opportunity brings transients and job seekers who might not be employable. The energy industry itself is subject to volatility, resulting in inflow and outflow of people. The county and other public jurisdictions are under pressure to provide expanded capacity and improved quality infrastructure and services in a short time. When energy prices fall, county and other facilities must absorb the costs of overcapacity. Periodic housing shortages and surpluses produce a different set of stresses.

#### **4.1.7 Policy**

Strengthen and expand Campbell County's economic base while preserving and building upon the social conditions in the county without detriment to the natural resource environment.

#### 4.1.8 Goals

- Coordination, consultation, and cooperation with state and federal agencies to support and sustain existing economic activities, including energy and mining, and agriculture and recreation. Support for future economic activities on state and federal land that are compatible with other existing or future uses and county goals. Encouragement for economic diversification in the county that will provide sustainable economic opportunities for residents. Assurance that activities on state and federal lands are properly mitigated to minimize or eliminate any negative social or economic effects.

#### 4.1.9 Objectives

- *State and federal agencies shall:*
  - *Notify, at the earliest point, Campbell County of any proposed action, change of existing activities, newly permitted activities, or changes in regulations that may affect the economic base of the county.*
  - *Include Campbell County in the review of any proposed developments and in any decision making processes.*
  - *Collaborate and consult with county agencies and the public to determine the full scope of potential social and economic effects of activities occurring on public lands and Campbell County should be notified of such discussions.*
  - *Collaborate with county agencies to develop a meaningful and relevant mitigation plan to address any direct or indirect negative social or economic effects resulting from a state or federal agency permitted activity or planning action.*
  - *Enforce the economic mitigations set forth in approved mitigation plans.*
- *Consider opportunities for economic development based on project merits and a comprehensive evaluation of the impacts to local or regional economic conditions; and*
- *Perform a socioeconomic impact analysis for each land management activity or decision related to state and federal properties; these analyses shall be conducted by experts familiar with the area's unique history, culture, economy and resources.*
- *Include in socioeconomic impact analyses a description of existing social, demographic, and economic conditions; the analytical methodologies; and the impacts to a comprehensive set of topics, including, but not limited to: population, employment, income levels, industry activity, housing, community services, utility services, schools, fiscal impacts to the county and local jurisdictions, public revenues, public expenditures, transportation, social conditions, and quality of life.*
- *Address in socioeconomic impact analyses the impacts of all phases of development or other activities, including construction and long-term operations, and all impacts of changes in regulations or other long-term planning strategies.*
- *Make socioeconomic impact analyses that are developed by state and federal agencies publicly available to all county officials, residents, or other citizens.*
- *Revise and modify socioeconomic mitigation plans over time in response to actual, on the ground conditions. Monitoring socioeconomic impacts and adapting the response to those impacts will be needed in order to properly mitigate certain actions.*



- *Campbell County reserves the right to appeal or seek other courses of action when the economic effects of management activities on state and federal land are not fully evaluated, considered, monitored, or mitigated as part of any land management decision.*

Proposed actions or permitted activities might include a small event that may result in mainly local impacts or a much larger event that may have larger scale, county-wide impacts. These actions, small or large, have the capability to affect social and economic conditions in Campbell County and impact residents of Gillette, Wright or rural areas. Changes in public land management planning philosophies, strategies or regulations are important to the county's economic activities. For example, a change in grazing regulations would affect agricultural operations, which are a mainstay of the county's economy and heritage. Campbell County desires an open line of communication between the Campbell County Board of Commissioners and the local offices of state and federal agencies regarding the potential for new developments or other activities. The knowledge of what may be to come will allow the county to prepare and plan for the future needs of its staff, businesses and residents.

As emphasized throughout this NRLUP, Campbell County is supportive of energy development and other economic activities occurring in the county now, as well as those that may take place in future years. Campbell County realizes that at least some of these activities are likely to occur on public lands or require state or federal level analyses for permitting or other purposes. As individuals or agencies charged with providing leadership regarding the direction of county initiatives and ensuring the economic and social viability of the county itself, Campbell County welcomes the opportunity to work closely with state and federal agencies to ensure that projects are beneficial to all stakeholders potentially affected. Inclusion of Campbell County in the proposal review process is likely to have a number of benefits, including access to local knowledge about economic, social, or other conditions; development of local credibility; and building of trust between agencies. In addition, involving Campbell County in the early stages of project review and discussion could alert state and federal agencies to potential issues and concerns at a time when those projects may be more easily altered or otherwise revised to avoid certain undesirable effects. Campbell County's early and continued involvement in the review process may be able to inform the discussion in such a way as to reduce the need for extensive mitigation once the project is operational or after the project has been completed.

Campbell County's involvement could take many forms, including that of cooperating agency in an EIS or as reviewer and commenter on smaller projects, but Campbell County would like a place at the table during the review process and the opportunity to fully participate and provide feedback and input to state and federal agencies as issues and propositions arise on lands in or affecting the county.

Discussions with a number of Campbell County representatives, agencies, or other groups are appropriate for state and federal agencies as part of the process of identifying potential countywide social and economic impacts of activities occurring on public lands. These groups could include, but are not limited to, the following:

- Campbell County Board of Commissioners





- Campbell County Economic Development Corporation (CCEDC)
- Northeast Wyoming Economic Development Corporation (NEWEDC)
- Campbell County Planning and Zoning Commission
- Campbell County Weed and Pest Board
- Joint Powers Regional Water Panel
- City of Gillette
- Town of Wright
- Campbell County residents at large

Representatives of these groups are experts in their field and leaders in the community. They are knowledgeable about the historical and existing demographic and economic resources of Campbell County and can provide specific comments and input regarding potential impacts to specific recourse areas. As part of the consultation effort, Campbell County anticipates that state and federal agencies will incorporate comments and inputs into any analysis or final land management decision. Campbell County will work with state and federal agencies to provide the data and other inputs necessary for developing an accurate analysis of potential economic impacts.

The extent, degree, and nature of socioeconomic impacts would be specific to individual projects, but small- and large-scale activities proposed to take place on state or federal lands have the potential to result in a host of social and economic impacts, both positive and negative, to Campbell County and its citizens. If requested by Campbell County, a comprehensive socioeconomic analysis would identify, analyze, and quantify the full scope of potential impacts of a project and address both the positive and negative aspects of such a development. These analyses generally include both direct and indirect effects of proposed projects, which may require the use of various economic modeling tools, such as IMPLAN or RIMS multipliers (IMPLAN, undated; U.S. Department of Commerce, undated). Such an analysis would be useful to Campbell County in planning for impacts and mitigation activities. If an analysis were conducted, Campbell County would prefer a final document that was easily readable to county citizens, in terms of understanding the topics addressed, the methodological approaches used, the anticipated project impacts, and the implications for the county. Other options for information dissemination might include a public meeting or other types of presentations.

Socioeconomic impacts are, of course, only one component of a larger analysis and review of any project. State and federal agencies will evaluate all aspects of a project before coming to a final decision on any proposal. However, Campbell County encourages these agencies to actively and seriously consider the socioeconomic effects, as these factors are likely to have far reaching and long-lasting effects on the county.

Mitigation plans are often required as part of state or federal permitting processes as a way to minimize or eliminate undesirable impacts of a proposed development. These plans include specific activities or other approaches that are to be implemented by certain parties to address the negative impacts of a project. Socioeconomic mitigation actions should be uniquely tailored to

the specific effects of individual projects, which can be identified as part of the socioeconomic impact analysis. In fact, it is a clear understanding of the type, location, degree, and duration of each project's socioeconomic effects that will form the basis for the development of mitigation plans that are meaningful to the County. Beyond the understanding of project effects is the need to include affected parties and other necessary information in the crafting of those plans to ensure that they are relevant and responsive to County concerns.

Campbell County believes that responses to the following questions can be used to drive the development of meaningful and relevant mitigation plans. Those responses, and the surrounding discussion, will provide focus and direction to these plans and can also work to identify the potential participants to be included in plan development:

- ***Who will be affected by project impacts?*** A project may result in impacts to specific entities, jurisdictions, or groups of individuals within the county. Representatives of those groups should be included in the discussion of mitigation activities and in the development of the mitigation plan. Those parties will have a unique stake in project outcomes and may be able to aid in the design of useful mitigation strategies;
- ***What County agencies will be responsible for responding to project effects?*** Project proponents will be responsible for completing mitigation activities, but affected parties may also look to specific agencies within Campbell County for support or guidance in the event of adverse project effects. Those agencies should also be included in the process of developing mitigation plans. They may have insight into creative mitigation strategies based on the availability of existing infrastructure, programs, or processes, or the potential to develop alternative approaches and actions;
- ***Which socioeconomic impacts will have the “largest” effects on county residents, agencies or other jurisdictions?*** The term “largest” may refer to duration, geographic extent, or the value of impact. The degree of effect should also consider any “offsetting” of negative effects resulting from other, beneficial, project outcomes. This question may spur discussion of what types of impacts to focus on in the mitigation plan, or how to prioritize mitigation actions, if that becomes necessary;
- ***What impacts are the most important to the county?*** It may be the impacts identified as the “largest”, or ones which result in the most interest or concern on the part of county residents. Some socioeconomic project impacts may have the potential to affect the county's goals or policy objectives for other resources. A discussion on this point may direct state and federal agencies to include certain impacts in the focus of the mitigation plan;
- ***Are some resources more sensitive to changes than others?*** Some resources may be permanently altered, or experience a worsening of conditions over time, as a result of project activity, without intervention from mitigation actions. It may be a priority to the county or others to address those resources in the mitigation plan in order to avoid irreversible effects; and
- ***How will the overall mitigation plan and individual mitigation actions be implemented?*** In addition to identifying specific mitigation strategies, an implementation plan must be developed to ensure that those strategies are actually put into place and are working to

reduce effects. Implementation actions may include identifying the party or parties responsible for performing specific mitigation actions, as well as the timeline for completing those actions.

These questions offer an initial approach to the development of project mitigation plans. They are intended to spur discussion among the county, state, and federal agencies and others in order to define project-specific mitigation actions and strategies. Campbell County realizes that all projects result in different effects; therefore, mitigation plans will also differ. These questions can be used as an initial framework for developing those plans, although other questions may arise over time.

In all cases, the development of the mitigation plan will benefit from being an inclusive process. Campbell County will work with state and federal agencies to identify and develop appropriate mitigation strategies for socioeconomic resources in response to proposed management activities. Campbell County would also like to have the opportunity to become involved in other phases of plan development, as well as to review and comment on the completed mitigation plan before it becomes final. The Campbell County perspective, in both plan formulation and execution, will contribute to both the efficiency of that plan and its likelihood for success.

Campbell County anticipates that state and federal agencies will enforce the approved mitigation plan. Enforcement is likely to include monitoring of certain conditions or activities to determine when changes occur as a result of development or other land management activities. County officials and residents must have the expectation that mitigation strategies will be implemented and enforced in order to plan for the future. However, Campbell County acknowledges that resource conditions may change over time for a number of reasons; these changes may result in revision or modifications of any mitigation plan.

Monitoring actual socioeconomic impacts should be a consistent feature of federal or state oversight of newly approved regulations, actions and permits. Projected effects are always subject to unknown influences and may lead to unintended consequences. Regular and explicit monitoring should be performed, leading to corrective action as needed.

#### **4.1.10 Socioeconomic Considerations for Future Actions**

Given the breadth and sensitivity to socioeconomic resources, the proposed actions or future permitted activities of state or federal agencies, private groups, or other parties will undoubtedly result in some level of demographic, economic, and/or social effects within Campbell County. The challenge will be to identify the specific types of socioeconomic effects, the stakeholders that may be affected, the intensity of effects, and the period of time over which those effects will occur. Impacts may be widespread, affecting large portions of the population or the economy, or they may be more focused on a particular geographic area, segment of the population, or economic group. More than likely, projects will result in a mix of both positive and negative effects and the key socioeconomic issue will be the balance of the tradeoffs. Whatever the extent or degree of potential impacts, the socioeconomic effects to Campbell County residents, businesses, economy, and quality of life are important considerations in the evaluation of proposed projects or actions. Clearly, potential changes in demographic, economic, or social conditions should be considered in the decision of whether or not to support the permitting of a

project, the design of the development or implementation plan of project components and activities or alternatives, and the mitigation plan to address any negative effects.

The analysis of socioeconomic effects for any project or action should begin with a thorough understanding of the action itself. How exactly will that action take place? What existing resources will change as a result of that action? Who is using those resources now or in the future and how will they be affected by the alteration in those resources? When those resources are changed will the effects be positive or negative to present users? How important are those positive or negative effects? This is the starting point for any socioeconomic evaluation.

There are a number of socioeconomic analyses or considerations which may be relevant to all types of projects; beyond that, the specific focus of individual projects would require an emphasis on certain additional socioeconomic factors. The following discussion provides a general outline of the components of socioeconomic analyses, as well as guidance about the resources and data that should be addressed in all impact analyses. Additional topics or issues have been identified for three specific types of projects: the re-introduction of a listed species, changes to air quality regulations, and mineral extraction. However, the complete set of analyses conducted for any project should be determined by the specific characteristics of that project. Additionally, it is important to remember that not all socioeconomic benefits can be quantified and many benefits may only be conducive to a qualitative discussion; however, these benefits may be of equal importance in a socioeconomic evaluation.

#### ***4.1.10.1 General Components of a Comprehensive Socioeconomic Analysis***

A useful and informative socioeconomic analysis will include the following components:

- A detailed description of the socioeconomic attributes of the proposed action itself. This step will define what will occur and how that will affect socioeconomic resources. The specific attributes of the proposed action will provide the focus for the subsequent impact study and evaluation;
- Baseline conditions relevant to the focus of the project in question and the geographic locations potentially affected by project alternatives. For example, the baseline description for a project anticipated to affect agricultural conditions in one area of the county should include data on farms, farm activities, farm income, and current agricultural conditions in that area, in addition to other socioeconomic characteristics. This element should include an interpretation and discussion of the baseline data to provide a vivid description of the area in terms of its demographic, economic, and social characteristics;
- Analyses of both short-term and long-term impacts. The socioeconomic impacts of the initial stages of a project (i.e., construction activities) may be very different than those experienced in later stages of the project (i.e., operational activities). The socioeconomic impact analysis should identify affected groups and describe specific effects to each of those groups in both the short- and long-term;

- An evaluation of total project effects that addresses both direct and indirect impacts. While certain economic sectors will be directly affected by project activities in terms of employment, income, or sales, the circulation of money throughout the county will also result in indirect impacts to additional sectors;
- An interpretation of what the impacts mean to the area in terms of intensity, i.e., are impacts negligible or significant; and
- A discussion of how the project will impact the area in combination with other projects occurring during the same time period or that are likely to occur in the future.

#### **4.1.10.2 Socioeconomic Resources Relevant to all Types of Projects**

The following items should be addressed as part of any thorough socioeconomic analysis. This list provides a general idea of the individual topics to be addressed, but may not be a complete set of all possible topics:

- *Population trends and demographic characteristics:* population growth, age distribution, migration patterns, perhaps racial make-up;
- *Housing conditions:* number of housing units, types of housing units, vacancy rates; median home values, rental rates;
- *Economic conditions:* employment by industry; unemployment rates; wages by industry, personal income levels, poverty levels, number and type of businesses, sales volume, cost of living information;
- *Public facilities and services:* water, wastewater, electricity, law enforcement, fire protection, education, waste disposal, medical and social services;
- *Municipal, county, school district or state level fiscal conditions:* revenue sources, revenues by category, expenditures by category;
- *Social context:* values held by local residents related to growth, community, industry activity, or other topics; and
- Some socioeconomic impact analyses include information about current land ownership patterns and land uses.

#### **4.1.10.3 Additional Analyses Related to the Reintroduction of ESA Listed Species**

In addition to the items listed above, a project or action focusing on the reintroduction of a threatened or endangered animal species should also take into account the following items:

- A more detailed evaluation of the impacts to private property rights. This should include an examination of any limitations placed on the use of private property or any changes in the value of that property as a result of the proposed action. The socioeconomic effects could include a loss of income or wealth, reduced employment, or reduced tax base;
- Potential changes in the allowed uses of public lands, i.e., temporary or permanent closures of certain areas in order to support wildlife, or restrictions that may curtail recreation, grazing, or other activities on public lands. Limitations on the use of public lands may result in economic impacts to agricultural, recreational, or other industries;

- Social and economic effects might extend to a loss of viability for ranchers to the point that they must leave the area;
- The potential for more or less tourism or recreational activity due to the existence of the listed species in the area and the associated spending of those additional visitor days.

#### 4.1.10.4 *Additional Analyses Related to Changes in Air Quality Regulations*

An economic evaluation of a project or action that results in changes to air quality standards or regulations will also include the following:

- A focused analysis on the impacts to specific directly affected industries. If an industry is curtailed, what will the economic losses be? The analysis might address changes in employment and employee income levels, industry sales, and revenues or costs incurred to meet new regulations;
- Associated industries might also be affected. Industries that supply the regulated sector should be identified and assessed;
- Changes in county or state level agency revenues related to changes in industry production or activity. This analysis might also identify the items that are funded by agency dollars; for example, education;
- Economic benefits to those industries that may rely on cleaner air, including perhaps the tourism and recreation sectors, and the positive impacts of additional visitor spending;
- The value of improved health, in terms of a reduction in medical visits and medical spending related to air quality issues.

#### 4.1.10.5 *Additional Analyses Related to Mineral Extraction Projects*

Mineral extraction or other projects that focus on energy development will have a variety of socioeconomic effects. Therefore, the social, demographic, and economic impact analyses for these types of projects must address a number of components in greater detail than warranted for in other types of projects; these include:

- *Housing resources* – impacts on housing availability and price by type of unit as a result of an influx of workers and other possibly transient people. The housing analysis may also look at the potential for displacement of local residents due to changes in housing prices;
- *Public infrastructure, utilities, and services* – rapid increases in local populations place pressure on public agencies to provide continuous, quality service to all users;
- *Timing of industry activity*, in terms of the duration of various project activities and the need for workers at specific points in the process. This factor is of great importance because of the large capital expenditures, and the long planning and construction periods required to provide new people with items like housing and utilizes;



- *Quality of life issues* – the construction and operation of the infrastructure required for mineral extraction may result in heavy traffic volume, safety concerns, noise, dust, or other factors that affect residents’ perceived quality of life. Large increases in local population, especially due to transient workers, may change the “feel” of an area, as well as the social patterns of local residents;
- *Local employment and income levels* – these types of projects will create job opportunities in a number of sectors, including mining, construction, retail, and other industries. Generally, the jobs offered by the mining or energy industry are well-paying, with wages that are often higher than average wages in other industries. In addition, business opportunities and activity may increase for local residents, expanding employment opportunities and possibly increasing income levels. Landowners may see increased income due to lease payments. However, other industries may experience losses of employees or difficulty hiring new employees because of the high wages offered by mining companies;
- *Fiscal conditions of local, county and state agencies, and other jurisdictions* –mineral extraction and energy development projects will result in increased revenues to various municipal, state, and other agencies; these might include property tax revenue, sales tax revenue, and severance taxes. On the other hand, expenditures for items such as road maintenance, public safety, and education, are likely to increase as well.
- *Impacts to private property values* – certain facilities or other developments in close proximity to these properties may reduce property values as a result of traffic levels, equipment noise, smoke or dust, visual impacts, or an influx of transient workers.

## 4.2 Timber

In Campbell County, timber has provided material for fencing, building, and heating since settlement times. Pine, juniper, and cottonwood trees continue to be a source of lumber, although most timber cutting has been on a small scale.

Native tree species that occur in Campbell County are boxelder, plains cottonwood, balsam poplar, quaking aspen, Rocky Mountain juniper, ponderosa pine, and limber pine. Boxelder, plains cottonwood, and balsam poplar can be found in riparian areas; boxelder is also a component of some aspen deciduous forest (Figure 3-11). Rocky Mountain juniper, ponderosa pine, and limber pine occur in xeric and lower montane forests (Figure 3-11). Green ash is an ornamental species that has been popular as a street, park and yard tree across the country and in Campbell County municipalities.

Wyoming’s timber harvest has been from mountainous regions of the state, where sufficient moisture allows timber to achieve a merchantable size. The nearest current commercial timber harvesting in northeast Wyoming has been in neighboring Crook County where there are two sawmills, as well as sawmills in nearby South Dakota. Merchantable timber in Campbell County could be taken to these nearby sawmills for processing. Although timber is a minor industry in Campbell County, it is an important resource that has helped many citizens. Currently, agricultural services, including forestry, account for approximately 2.9% of total employment in Campbell County (Table 4-2). Local wood products provide reasonably priced heat for homes, fencing supplies, and building materials.



Activities such as timber harvest and fire suppression have changed the composition of forest stands from uneven-aged, where relatively large age differences are found between individual trees; to even-aged, in which all the trees are close to the same age. This leaves forests vulnerable to insects and disease. The current mountain pine beetle infestation might be one of the largest insect blights ever seen in North America (Petit 2007). Beetles favor mature trees more than 14 inches in diameter (Letherman et al. 2011), but have been known to impact trees down to seven inches in diameter (Means 2014). More than 4 million acres have been affected in Wyoming since the first signs of the mountain pine beetle outbreak in 1996 (USFS 2013). Aerial survey results from 2015 show that the epidemic is declining in most of Wyoming, with the exception of the northeastern part of the state, where an ongoing outbreak continues in the Black Hills National Forest (USFS 2015). This outbreak could put forests in Campbell County at risk.

In addition to the pine beetle outbreak, the climate and rural character of Campbell County makes the forests vulnerable to catastrophic wildland fires. The past 100+ years of wildland fire suppression has led to heavy vegetation growth that escalates the fuels available to intensify a wildfire. Add to this a growing wildland/urban interface due to subdivisions being developed to house employees of the growing energy industry and protection of these developments could involve more than available fire-fighting equipment can provide. (Wyoming Homeland Security 2011).

All of Wyoming is facing unparalleled disturbances of its forestland due to insects, disease, forest fires, invasive species and drought; these disturbances are both widespread and acute (UW 2010). Campbell County has not escaped these conditions. The impacts of these disturbances limit the ways forests are used and enjoyed, inhibit sustained yields of forest resources, pose a threat to housing and infrastructure at the wildland-urban interface, and degrade wildlife habitat and water quality. In conjunction with the impacts from drought, wildfire, and disease, the ability to apply effective management strategies for dealing with these issues and restoring forests is decreasing due to the fact that the forest products industry in Wyoming has been downsizing over the past three decades (Pappas 2013).

Campbell County believes timber management should occur by working with landowners and government agencies to promote forest health by integrating land management programs to: reduce insect and disease damaged stands and the potential for future infestations; augment fire suppression and defensible space; enhance wildlife habitat, grazing, oil and gas, and recreational opportunities.

#### 4.2.1 Policy

A sustained timber resource managed for optimum utilization, economic return, and environmental benefit while supporting multiple uses by Campbell County and its citizens.

## 4.2.2 Goals

- Diversify age classes and species in timbered areas. Reduction of insect and disease damage. Prevention of build-up of excessive fuel load, and improvement of fire suppression and defensible space Improvement of wildlife habitat and vegetation diversity. Utilization of timbered areas for local economic and social benefit.

## 4.2.3 Objectives

- *Promote the use of appropriate species in urban and rural forestry planning.*
- *Support private, state, and federal land managers in proper management of harvestable timber areas through best forest management practices, including, but not limited to: timber harvest, thinning, select cutting and clear cut, fire management, and managed grazing practices for the prevention of catastrophic wildfires, insect infestations, and disease outbreaks.*
- *Support timber harvest of insect- and disease-damaged timber stands to improve forest health and prevent catastrophic wildfires and future infestations.*
- *State and federal agencies shall coordinate efforts with all landowners and local governments in treating timber stands for insect and disease outbreaks.*
- *Encourage use of living snow fences and shelter belts.*
- *State and federal agencies shall manage for sustaining multiple uses in timbered areas (e.g., timber harvest, livestock grazing, mining, oil and gas production, and recreation).*
- *Support the ability of its citizens to derive economic and social benefits from timbered areas, including the use of timber products from state and federal lands for private, personal use.*
- *State and federal agencies shall recognize and encourage commercial timber harvest in Campbell County to promote forest health and economic development.*

It is Campbell County's policy to support private, state, and federal land managers and private landowners in proper management of forested areas through a variety of techniques that will promote diverse age classes and species. Management of timber should focus on maintaining and promoting diverse age classes and species while considering what the desired structure should look like in 100 years. Management techniques may include but are not limited to: timber harvest, thinning, fire management, and managed grazing practices.

Timber harvesting requires advanced planning. For federal agencies, the timber sale planning is analyzed through the NEPA process. For state and private entities, the development of a timber sale plan can be anywhere from an analysis similar to the NEPA process to just a verbal declaration of the expectations from the harvest. It is recommended that a timber sale plan be written and agreed to for all timber sale operations regardless of ownership. The analysis should evaluate the potential for impacts and cumulative effects on the soil and water resources. The planning document should incorporate Wyoming Forestry and Silviculture BMPs whenever the planned activity impacts an area that could be mitigated by employing one or more of the BMPs. Information on field audits of these BMPs is provided in Appendix A. Timber sales should be designed to ensure that timber harvest will maintain or improve hydrographic characteristics by increasing runoff quantity and/or extending the runoff period, maintain water quality and soil productivity, and reduce soil erosion and sedimentation (WDEQ 2004). Additional information

on Wyoming BMPs regarding Streamside Management Zones is found in Appendix A. References to soils are found in several federal laws and State Forest Practices Acts (Puffer 1991). Wyoming does not have a Forest Practices Act, so soil management and protection measures during forestry activities are voluntary.

Specific management actions that Campbell County supports regarding forest insects and disease, fire, and wildlife habitat are described in Appendix A. These actions include the most up-to-date approaches to managing insects and disease based on current science; potential treatments for specific insects and diseases are discussed. Information in Appendix A is kept current to address changing conditions regarding forest insects and disease and the related impacts, such as changes to wildfire cycles and wildlife habitat.

A viable forest products industry is essential for effective forest management; forest management project expenses become unreasonable without it. A predictable, dependable supply of forest products is critical to retaining the industry infrastructure. The development of non-traditional markets, such as those for biomass, could become important. There is the potential to use some biomass (1%) at coal fired plants, thereby reducing CO<sub>2</sub> emissions. Assessments should be undertaken to identify forest landscape areas where there is potential to access and supply traditional, non-timber, and/or emerging markets such as those for biomass or ecosystem services. Assessments can identify viable and high potential working forest landscapes where landowner assistance programs can be targeted. In addition to supporting the forest products industry, the proper treatment of timber stands aids in reducing fuel loads, thus preventing catastrophic fires. Restrictions on the use of timbered areas would be a detriment to hunting, recreation, mining, oil and gas, and agriculture industries.

Windbreaks and living snow fences are snow capturing linear plantings of single or multiple rows of trees or shrubs for the purpose of wind reduction. In Wyoming, they are essential for controlling blowing and drifting snow. It is Campbell County's policy to encourage the use of living snow fences and shelter belts. Funding can be a limiting factor, as most landowners require some direct support to install living snow fences off a highway ROW. The WSFD, Wyoming Department of Transportation (WYDOT), and Wyoming Association of Conservation Districts have snow fence programs funded by the USDA CRP to provide financial assistance to landowners for living snow fence installation. Specific tree species that could be used in Campbell County for living snow fences and shelter belts are described in Appendix A.

While many people think of Wyoming as a rural state, 69% of the population lives within urban areas, or incorporated cities and towns, as compared to 80% of the U.S. population living in urban areas. Urbanites depend on the essential ecological, economic, and social benefits provided by urban trees and forests (Hamerlinck et al. 2013). Urban forests provide a myriad of essential services that include reduced energy use; improved water, air, and soil quality; diverse wildlife habitat; noise abatement; and increased human health and well-being (Nowak et al. 2010). Management decisions influence the amount and types of benefits derived from the urban forest now and for future generations. Knowledge of urban forest ecology and how to conserve these essential resources is critical to developing appropriate management strategies to enhance optimal urban forest cover and to sustain urban forest health and benefits into the future. Additional information on urban forestry is included in Appendix A.

### 4.3 Livestock and Grazing

Grazing by native ungulates such as bison, elk, mule deer, and pronghorn antelope pre-dates settlement in Campbell County. Domestic livestock grazing by settlers was established in Campbell County in the late 1800s. Grazing has been a means of economic viability in Campbell County since the county was originally settled. Grazing and raising livestock is a smaller industry economically when compared to other industries, but remains significant for the cultural heritage and environmental management of Campbell County. The mix of livestock species and number and size of ranching operations has vacillated through time, but from the time that Campbell County was settled, grazing and livestock production has been an important industry in the county supporting local businesses and contributing to the local tax base thereby providing local government services and support for the local school system and retaining open spaces for wildlife. Many ranching operations in Campbell County are run by families who often have long-term commitments to the land and natural resources and are involved in community activities. The traditions of Campbell County are tied to grazing and raising livestock, making the sustainable continuation of these practices imperative to upholding the historic culture of the county. Appendix A contains the current composition of the livestock industry in Campbell County.

Grazing leases are one way that state and federal land managers work with private livestock producers to manage livestock grazing in Campbell County. BLM and USFS grazing leases are present throughout Campbell County. The Buffalo BLM field office is responsible for managing BLM grazing leases in Campbell County, while the Douglas Ranger District manages USFS grazing allotments in the county. Approximately 223,888 acres of land in Campbell County are managed by the BLM, 161,841 acres of land are managed by the USFS, state land accounts for 188,662 acres, and private land accounts for approximately 2,514,835 acres. Grazing allotments span the county and are present on federal, state and private lands. Grazing allotments within the county vary in size, use dates, and livestock number and kind depending on the individual grazing operators issued lease(s)/permit(s). Management statuses are applied to individual grazing leases depending on the status of the lease. Few grazing leases in Campbell County fall under the “improve” management status with most grazing leases falling under “custodial” or “maintain” status (Table 4-5). Livestock grazing typically occurs on grazing allotments through the spring, summer, and fall months, with permittees/lessees moving livestock off of the grazing allotments sometime in the fall.

**Table 4-5. Summary of grazing allotments Buffalo Bureau of Land Management field office.**

Field Office	Management Status	Number of Allotments	Total Acres*
Buffalo Field Office	Custodial	152	976,907
	Improve	6	97,552
	Maintain	31	410,567
	Unclassified	1	13,957
	Unknown	3	-
<b>Total Row</b>	-	<b>193</b>	<b>1,498,983</b>

\* Acreage includes public, state and private lands. Source: GeoCommunicator 2014  
Excludes U.S. Forest Service grazing allotments, approximately 101,500 acres

The landscape of Campbell County is conducive to livestock grazing and a thriving livestock industry. While forested and urban environments exist in Campbell County, the majority of the

landscape consists of two types of rangelands: Wyoming sagebrush shrublands and prairie grasslands. Sagebrush shrublands are an important habitat type in Campbell County both in terms of size and utility for wildlife and grazing. Campbell County contains approximately 1,698,318 acres of sagebrush shrublands accounting for over 55% of the land area in Campbell County (Figure 3-11). Plant species composition and structure vary in sagebrush shrublands. Sagebrush shrublands can be made up of monocultures of sagebrush or contain high levels of shrub diversity (WGFD 2017). Sagebrush shrublands can be productive environments for grazing depending on soils, microclimate, plant species composition, distribution of sagebrush and many other factors. Prairie grasslands are an important habitat type in the county, accounting for approximately 968,756 acres or over 32% of the land area in Campbell County (WGFD 2017; Figure 3-10). Prairie grasslands are an important grazing resource in Campbell County and across Wyoming. Prairie grasslands are productive for grazing and support many wildlife species.

The culture of Campbell County is grounded in rural values, conservation, wise use of natural non-renewable and renewable resources, and the preservation of private property rights. Grazing livestock on private, state, and federal land continues to be part of Campbell County's western heritage. Proven methods of livestock grazing continue to maintain the health and productivity of grazing lands and provide improved wildlife habitat, healthy watersheds, and soil erosion control. A large part of Campbell County's present and future economic viability is strongly tied to the land and its productivity.

#### 4.3.1 Policy

Continued livestock grazing on private, state, and federal lands and the maintenance of current and/or historic animal unit month (AUM) levels, while sustaining and improving grazing land production, rangeland health and wildlife habitat.

#### 4.3.2 Goals

- Healthy grazing lands to include the diversification of native plant populations and wildlife habitat.
- Rangeland management for optimal grazing potential.
- Maintenance of a strong and viable livestock production industry.
- Continued livestock grazing on state and federal land with grazing potential, distribution and flexibility in the grazing season. Management and control of noxious weeds, invasive species and pests.
- Whereas the BLM Buffalo Field Office has determined livestock grazing to be an acceptable use on 99% of the BLM-administered lands within the Buffalo planning area.

#### 4.3.3 Objectives

- *Use relevant scientific data and rangeland monitoring data to support any modification of AUMs on state and federal lands.*
- *Make immediately available access for permittees/lessees to any data collected on their grazing permit/lease, including field notes.*
- *Consult and consider the input of permittees/lessees on any proposed changes of use to permits/leases.*



- *State and federal agencies shall consult and coordinate with permittees/lessees on any proposed grazing rest prescriptions due to drought, wildfires or prescribed burns. Any AUM reductions shall be temporary and based on scientific data and monitoring and rangeland health standards and guidelines.*
- *Whereas the BLM Buffalo Field Office has determined livestock grazing to be an acceptable use on 99% of the BLM-administered lands within the Buffalo planning area<sup>8</sup>, and completed an evaluation to determine 9,992 acres where grazing is incompatible with other resource uses<sup>9</sup> State and federal agencies shall not permit the relinquishment, transfer, or retirement of livestock grazing AUMs in favor of conservation, wildlife, or other uses.*
- *recognize, venerate, and actively promote and protect all property rights associated with grazing permits/grazing leases, including but not limited to water rights and ROWs and easements on state and federal lands,*
- *protect the rights of privacy and shall not release personal and private information of permittees/lessees, such as phone numbers, home address, contact information or financial data to members of the public or media unless expressly approved in writing by the permittees/lessees. This policy shall not prohibit exchanges of data between state and federal agencies and local emergency service providers.*
- *Issue grazing permit/lease renewals and grant extensions to permittees/lessees if state and federal agencies are unable to process such renewals before the expiration of such permit/lease.*
- *State and federal agencies shall not impede the control of noxious weeds and pests in order to maintain the long-term economic productivity of the rangeland for livestock and wildlife grazing.*
- *Cooperation and consultation with federal and state agencies in regards to livestock health and potential disease and/or health risk to livestock in the county.*

As provided for in allotment agreements, various monitoring activities are conducted by the BLM and USFS on all grazing allotments including actual use by livestock (i.e., number of animals within an allotment provided by leasee), use supervision (i.e., count of livestock during field visits), and vegetation status and trend. Data are collected within areas that are representative of a large percentage of the public land within the allotment and are generally visited every five years unless there are extenuating circumstances, such as severe drought, in which case they are visited more frequently.

Data collected on grazing leases can be used by private livestock producers to make informed management decisions. By providing data to livestock producers, state and federal land managers are providing livestock producers with the tools to make land management decisions that are beneficial to the livestock industry and the landscape of Campbell County.

Private livestock producers are often knowledgeable about their grazing leases including plant communities, wildlife and natural resource concerns. State and federal land managers will gain knowledge by collaborating with livestock producers and livestock producers will be made

<sup>8</sup> BFO\_RMP\_Evaluation\_Draft\_3/4/2022

<sup>9</sup> BFO\_RMP\_Livestock Grazing Decision Grazing-6017

aware of proposed changes to their permits/leases. Campbell County's natural resources, state and federal land managers, and livestock producers all stand to benefit from consistent communication between state and federal land managers and livestock producers.

The optimization of rangeland resources and AUMs is critical to the continuation of a strong livestock production industry in Campbell County. Livestock grazing can be used to conserve natural resources (Hubbard et al. 2004) and improve natural resource health and wildlife habitat (Vavra 2005, Johnson and Sandercock 2010). Alternative grazing practices such as rotation grazing within leases should be considered prior to suggested reduction in AUMs. Land managers should employ iterative land management strategies rather than simply reducing AUMs. Adaptive management techniques can be employed that satisfy the needs of multiple resource users (Williams and Brown 2012) without the unnecessary reduction of AUMs on grazing leases.

In Campbell County, over 70% of non-privately held land under grazing allotments is managed by the BLM. The BLM grazing regulations require grazing permits issued by the agency to contain terms and conditions that ensure conformance with BLM Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Land Administered by the BLM. These standards and guidelines address the health, productivity, and sustainability of public rangelands. The BLM Wyoming standards and guidelines assess the four fundamentals of rangeland health: properly functioning watersheds; naturally cycling water, nutrients and energy; acceptable air and water quality; and viable habitats for special status species. Allotments are categorized as Improve, Maintain, or Custodial to prioritize and concentrate funding and on-the-ground management efforts to those allotments where resources are needed most, as per BLM Instruction Memorandum 2009-18 (BLM 2009a). Within Campbell County, the BLM categorized six allotments as Improve, 31 as Maintain, and 152 Custodial. As provided for in allotment agreements, various monitoring activities are conducted by the BLM on all grazing allotments including actual use by livestock (i.e., number of animals within an allotment provided by leasee), use supervision (i.e., BLM count of livestock during field visits), and vegetation status and trend. If federal land managers are not able to complete monitoring activities prior to the expiration of permits/leases, extensions and renewals shall be granted.

The USFS manages 29 grazing allotments totaling approximately 101,500 acres in Campbell County. Forest Service Handbook (FSH) 2209.13 (USFWS 1992a) outlines the qualifications, requirements, and terms of use for USFS grazing allotments. FSH 2209.13 identifies the general land practices required to graze on USFS allotments while specific LRMP identify more detailed objectives, practices and prohibitions that may be associated with a grazing permit. Individual USFS grazing permits can further delineate the permitted actions or requirements of a permittee. USFS is required to monitor permittee activities (USFS 1992a) and can terminate a permit if a permittee is found to be in violation of the terms outlined in the grazing permit (USFS 1992a).

It is Campbell County's policy to encourage the management and control of noxious weeds, invasive species, and pests to maintain the productivity and integrity of Campbell County's natural resources (See Chapter 3 *Weed, Pests, and Invasive Species*). State and federal land managers should facilitate the control of noxious weeds and pests on state and federal lands in order to maintain the long term economic productivity of Campbell County rangelands for



livestock grazing and wildlife. Management techniques might include preventing the introduction of undesirable species through early detection and proper weed identification, early detection and eradication of weeds, mapping the spatial extent of undesirable species, educating state and federal land managers and the public through plant identification courses and outreach programs, and inventory of undesirable species for land management planning and weed and pest control through long term monitoring and treatment (BLM 2008). Campbell County supports management strategies to control noxious weeds, invasive species, and pests including, but not limited to, herbicide and pesticide applications in accordance with federal, state, and local regulations and standards, biological control strategies that utilize best available scientific evidence and planning prior to biological introductions and mechanical controls. Grazing strategies should consider the species mix of individual plant communities including non-native species. Efforts should be made to reduce the transfer of non-native plants and noxious weeds that have the potential to reduce the richness and productivity of native plant populations.

#### 4.4 Mineral Resources

Mineral extraction industries have long been part of the history and economy in Campbell County (Ritthaler 1995). Mineral resources include, but are not limited to coal, oil and gas, uranium, scoria, gravel and others. These vast reserves have been utilized by residents as the region was settled and ultimately exported for the nation’s energy needs as development, production, and transportation infrastructure was put into place.

Campbell County’s economic viability is highly dependent on the ability to produce, market, and deliver mineral and energy products to consumers in Campbell County, within the State of Wyoming, and across the US. This continued development is a critical component of the county’s economic base. The ability to continue this economic activity is dependent on a number of factors, and can be hindered by excessive environmental regulation and lack of transportation.

##### 4.4.1 Coal

Campbell County is situated on the eastern edge of what is probably the largest single deposit of coal in the US that is economically recoverable by surface mining methods. “Using a geology-based assessment and methodology, the USGS estimated in-place resources of 1.07 trillion short tons of coal in the Powder River Basin, Wyoming, and Montana. Of that total, with a maximum stripping ratio of 10:1, recoverable coal was 162 billion tons. The estimate of economically recoverable resources was 25 billion tons.” The Gillette Coal Field, which lies in central Campbell County, contains 10 billion tons recoverable by surface mining methods (USGS 2013).

One of the first coal mines opened in 1922 was the Peerless Mine. It became WYODAK Coal Mine in 1927, and it has been a steady source of employment ever since. As of 2020, there were 12 mines operating in Campbell County (Figure 4-6); however, the Coal Creek Mine is set to close in 2022. Over the last decade, coal production in Campbell County decreased from over 428 million tons in 2010 to about 210 million tons in 2020 (Wyoming Department of Employment 2010 – 2021). The trend in decreasing coal production in the county and in the state can be attributed to the continuing retirement of coal-fired power plants, low price of natural gas, and the increasing competition from renewables (Wyoming State Geological Survey 2021a). Table 4-6 provides coal production data for Campbell County and Wyoming since 2010.

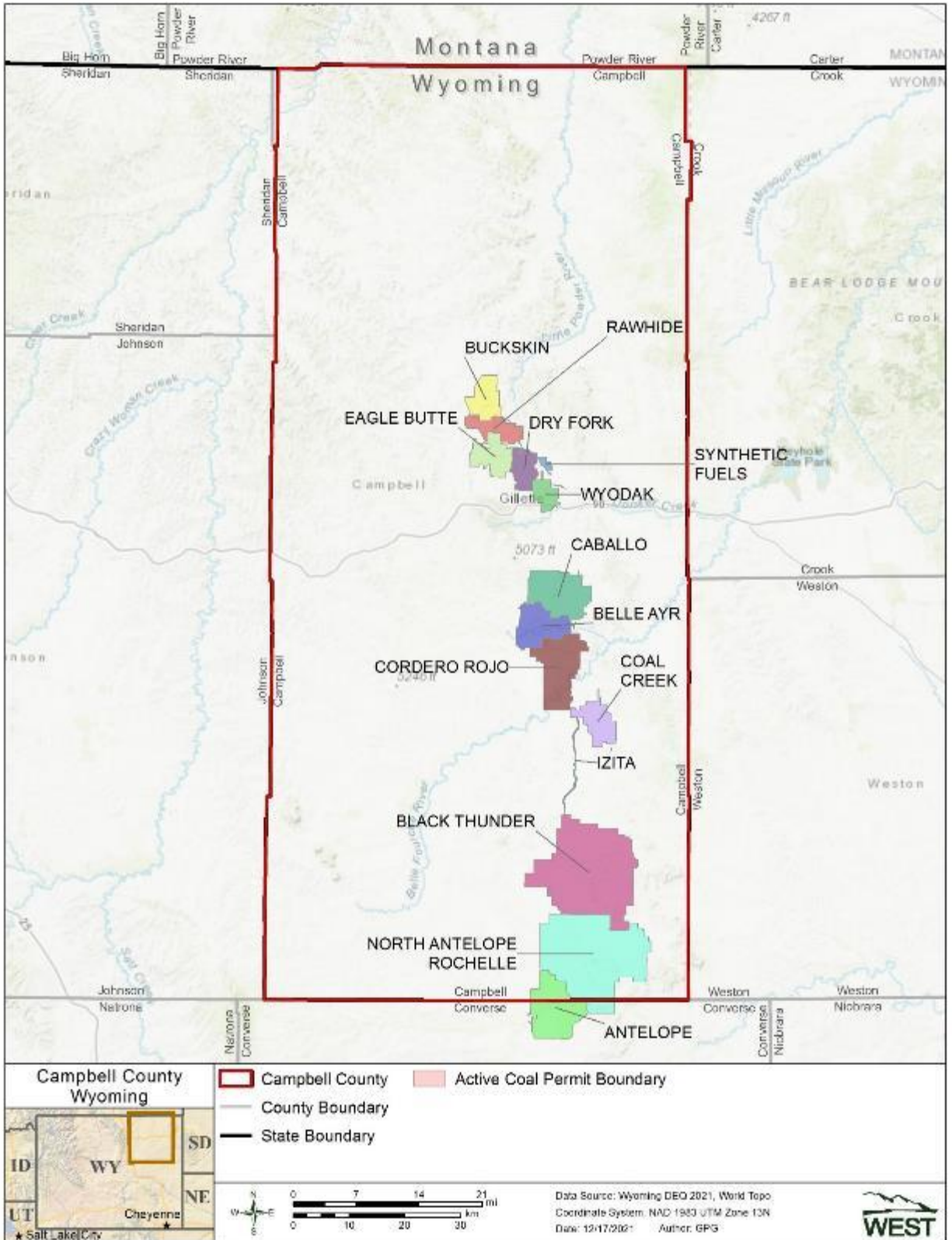


Figure 4-6. Coal mine locations in Campbell County.

**Table 4-6. Coal production in Campbell County and Wyoming, 2010-2020.**

Year	Campbell County Production (tons)	Wyoming Production (tons)	Campbell County % of Wyoming
2010	428,331,724	442,061,036	96.9
2011	426,076,897	438,380,012	97.2
2012	354,060,413	401,457,074	88.9
2013	374,372,470	387,995,072	96.5
2014	378,916,523	392,751,713	96.5
2015	363,325,451	375,694,995	96.7
2016	287,243,453	297,501,894	96.6
2017	305,612,350	316,603,867	96.5
2018	293,462,560	304,180,569	96.5
2019	267,016,558	277,087,947	96.4
2020	209,991,649	218,561,923	96.1

Despite decreasing production levels, the top producing mines in the country are located in Campbell County, making it the nation’s prime source of domestic coal production. Coal mines in Campbell County produce about 96% of the coal mined in Wyoming; Wyoming produces about 40% of the nation’s total coal resources.

The TBNG contains the nation’s largest coal mine, the North Antelope Rochelle Mine, most of which is located in Campbell County, as well as portions of the Black Thunder Mine. The USFS has authority and responsibility to determine which lands are available for leasing and for prescribing lease terms that protect the surface resources and values (USFS 2001). The Secretary of the Interior has the authority to administer operations on such lands leased, licensed, or permitted. The Office of Surface Mining is responsible for coal, and the BLM is responsible for other minerals (USFS 2001).

#### 4.4.2 Oil and Gas

The first oil well was drilled in Campbell County in 1941 starting the era of oil exploration, and the first commercial oil field was discovered in 1948. Production boomed in the late 1960s and early 1970s, earning Gillette the title of “Energy Capital of the Nation”. This was followed by the “bust” in 1986 with oil production on the decline until 2006, when it experienced its first increase in 20 years.

Most of the oil and gas producing fields in the county are stratigraphic traps, as opposed to anticlinal traps common to the major producing fields in other parts of Wyoming. The stratigraphic traps are thick, discontinuous channels, beach, or offshore sands. Beach and offshore sands usually have a north-south trend to them in Campbell County, while the discontinuous channels have an irregular configuration. Production comes from the middle portion of the stratigraphic column. More than half of the oil production comes from the Muddy Sandstone, and over 50% of that comes from the Minnelusa, Dakota Sandstone, Mowry Shale, Turner Sandstone, Niobrara Shale, and Sussex, Parkman, and Ferguson Sandstones. The Muddy Sandstone yields 97% of the total conventional gas production with bulk of the remainder coming from the Ferguson and Sussex Sandstones (Ritthaler 1995).

Conventional natural gas production followed similar lines of oil production until the 1990s when new technologies were developed to extract coalbed natural gas from the coal seams in Campbell County. Sporadic development began in the late 1970s, but no large scale efforts were seen until the late 1980s. The early development focused on shallow coal targets in areas of proven reserves, such as those by the Campbell County Airport, along the Highway 59 corridor between Gillette and Wright, and isolated targets near Recluse. Coalbed gas production went into full swing by the late 1990s, driven by several factors, including the increasing price of natural gas and new technologies that decreased well costs. Those technologies have continued to evolve into more efficient methods of extracting the gas from the coal seams.

A by-product of this production is water, which must be drawn off the coal seams in order to release the gas. Companies must use environmentally sound, acceptable methods of handling the quantities of water that are produced. Water management plans are created by the company to meet local, state, and federal regulations, as well as the surface owner's needs. Stock ponds, wetlands, wildlife ponds, and irrigation are some of the ways that the produced water is managed and put to beneficial use. Because of the fine-textured soil which is predominant in Campbell County, a great deal of care must go into using this water for irrigation purposes.

There are approximately 37,800 completed oil and gas wells within the borders of Campbell County (Figure 4-7), about 21,250 of which are coalbed natural gas wells (Figure 4-8). About half of those wells have been plugged and abandoned (P&A); about 54% of the coal bed natural gas wells are P&A (Wyoming Oil and Gas Conservation Commission [WOGCC] 2021). The number of producing wells in Campbell County has steadily decreased over the last 10 years, from 10,874 in 2010 to 3,220 in 2020; idle wells have also decreased, from 9,439 in 2010 to 4,075 in 2020.

Natural gas production has been declining in the Powder River Basin since 2009, largely due to low gas prices, depleted coalbed natural gas reservoirs, and competition from large unconventional gas plays (Wyoming State Geological Survey 2021b). Over the last decade, natural gas production in Campbell County steadily decreased from peak production of 141,383,827 thousand cubic feet (Mcf) in 2010 to 71,308,166 Mcf in 2018. The county's gas production increased in 2019 and 2020, reaching 84,273,922 Mcf in 2020 (about 5.7% of total statewide gas production) (WOGCC 2021).



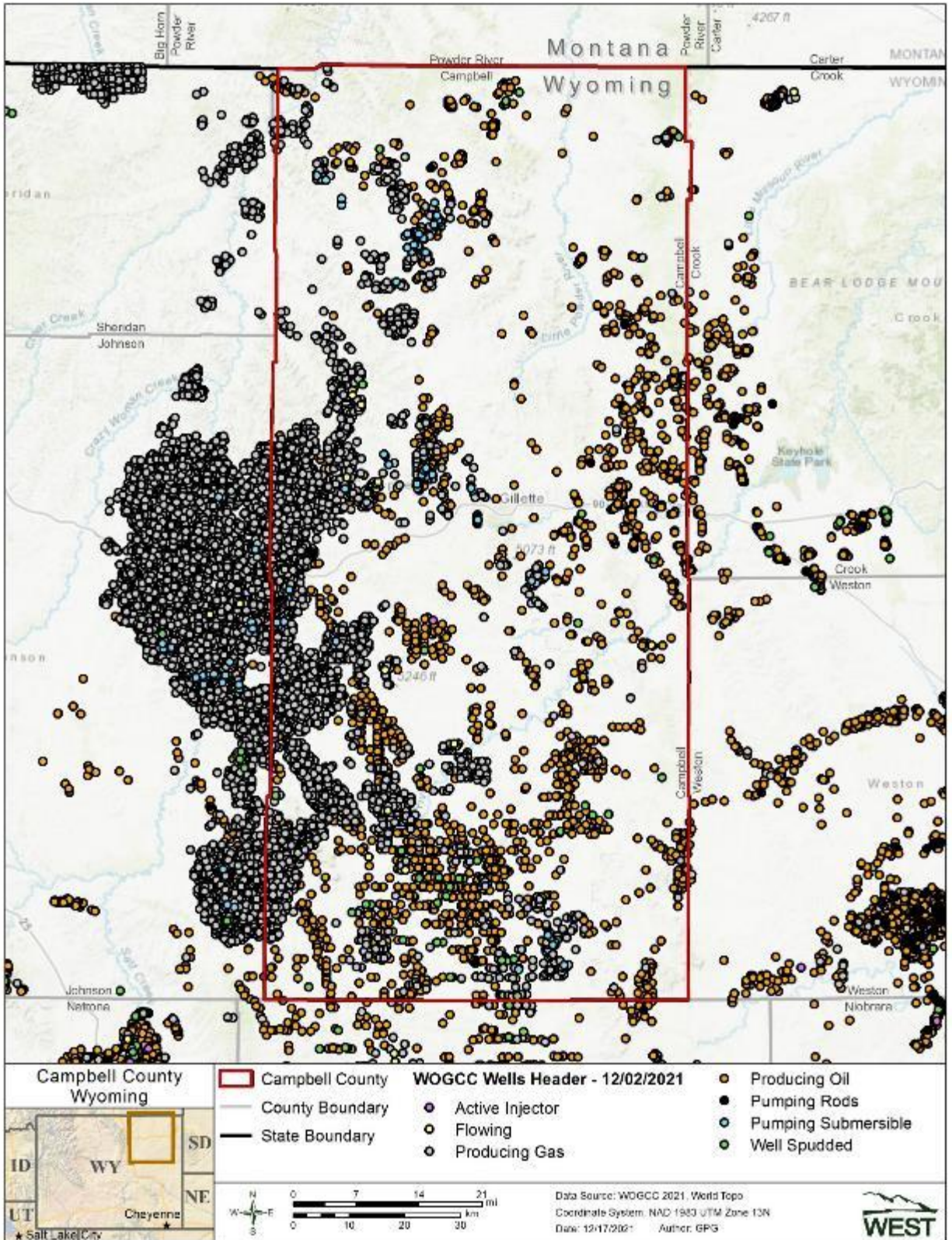


Figure 4-7. Completed oil and gas wells in Campbell County.



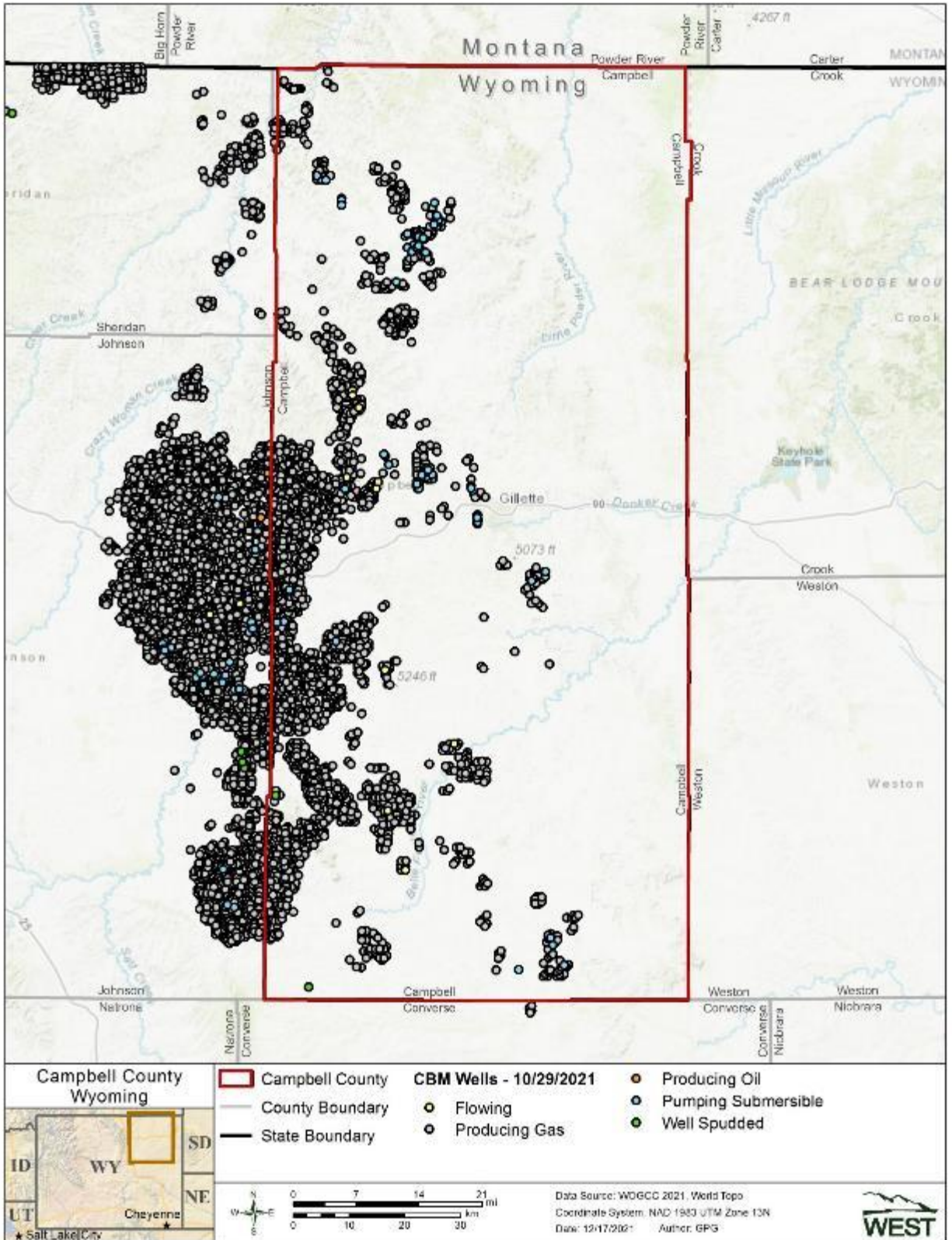


Figure 4-8. Completed coalbed wells in Campbell County.

Crude oil production over the same period varied from a low of 8,000,921 barrels (bbls) in 2010 to a high of 22,959,463 bbls in 2015. Since 2015, the county’s annual oil production fluctuated slightly and was 19,572,709 bbls in 2020 (about 22% of total statewide oil production). As of 2020, Campbell County was the second highest producer of oil in Wyoming and the fourth highest producer of gas in the state (WOGCC 2021). Table 4-7 presents Campbell County’s oil and gas production between 2010 and 2020.

**Table 4-7. Oil and gas production in Campbell County, 2010-2020.**

Year	Oil Production (bbls)	% of State	Gas Production (Mcf)	% of State
2010	8,000,921	14.9	141,383,827	5.6
2011	8,586,218	15.8	138,032,268	5.8
2012	9,793,626	16.9	120,945,685	5.4
2013	13,033,895	20.5	104,871,056	5.1
2014	18,831,587	24.7	101,770,706	5.1
2015	22,959,463	26.6	96,204,291	4.8
2016	18,586,049	25.6	86,417,097	4.7
2017	17,343,849	22.9	79,208,790	4.4
2018	17,314,455	19.7	71,308,166	3.9
2019	20,543,107	20.1	80,853,296	5.0
2020	19,572,709	22.0	84,273,922	5.7

bbls = barrels, Mcf = thousand cubic feet

Nationally, Wyoming ranked eighth in production of crude oil and ninth in natural gas production during 2020 (Wyoming State Geological Survey 2021c).

The number of well permit applications (APDs) has varied through the years depending on petroleum market demands. Total APDs received increased almost 30% in Campbell County in 2019 over the number in 2018 (WOGCC 2021). However, in 2020, the number of total APDs received dropped dramatically, and was only about 12% of those received in 2019. By late 2021, APDs received had increased, as compared to 2020, but were only about 21% of those received in 2019. More than 92% of all 2019 and 2020 approved permits to drill in the Powder River Basin were for horizontal wells (Wyoming State Geological Survey 2021b).

#### 4.4.3 Uranium

Wyoming is home to the largest known uranium ore reserves in the United States. As of 2018, the state ranked first in uranium production, accounting for about 43% (635,000 pounds as triuranium octoxide) of all the uranium produced in the nation. Commercial uranium mining in Wyoming began in the 1950s; production of this resource is highly dependent on market price. Wyoming’s uranium varies from high-grade resources in eastern Fremont County to low-grade resources in the Pumpkin Buttes area of Campbell County. There are currently four active uranium mining operations in Wyoming, including three in the Powder River Basin; none of those are located in Campbell County (Wyoming State Geological Survey 2021d). Some mining operations have been put on hold until more favorable market conditions return. Prior to 2018, there were several additional mines in operation in Wyoming.

Substantial uranium deposits exist in Campbell County (Figure 4-9). As of 2018, the county was home to four uranium recovery facilities (U.S. Nuclear Regulatory Commission 2021). Future mining activity will depend on price and demand.



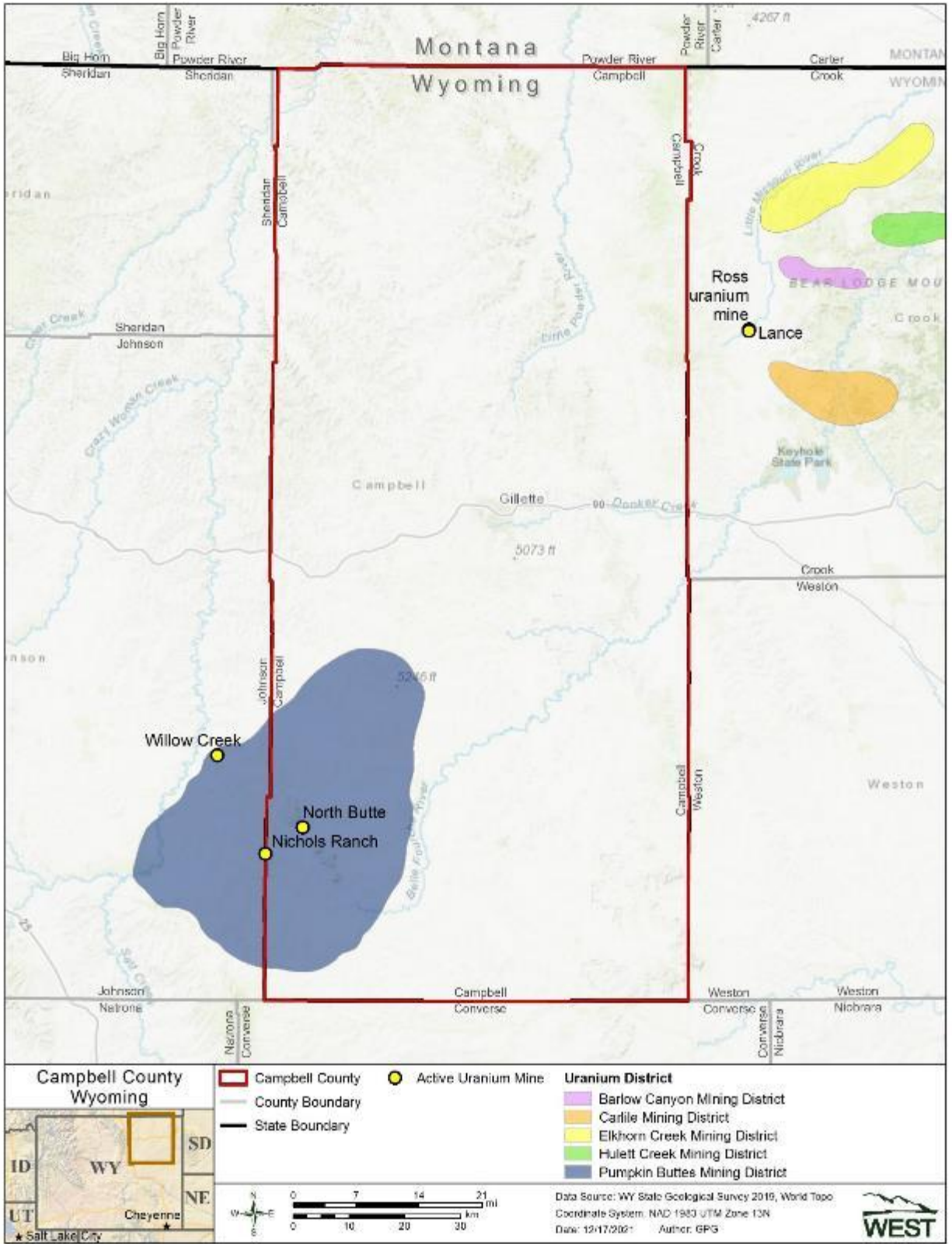


Figure 4-9. Uranium deposits in Campbell County.

#### 4.4.4 Policy

Continued exploration, development, and production of valuable mineral resources while maintaining and enhancing the natural resource environment.

#### 4.4.5 Goals

- Timely and successful reclamation practices in accordance with state law.
- Mineral resource development with timely reclamation using best management practices as well as in accordance with local, state and federal guidelines and requirements. Positive, coordinated, and cooperative working relationships with stakeholders involved in mineral resource development. Timely access to state and federal mineral resources with reasonable stipulations based on credible scientific data and economic sustainability. Identification, prioritization, periodic review, updating, and mapping of mineral development locations in order to mitigate conflict with rural development, roads, and infrastructure.
- Conflict resolution and mitigation of split-estate and eminent-domain issues while protecting and preserving private property rights and other valid existing rights.
- Active participation with state and federal agency decisions regarding mineral development within Campbell County.
- Plan for short- and long-term sustained development of mineral resources to maximize economic return and minimize impacts.
- Reasonable state and federal environmental regulations that do not deter or delay the production of mineral resources.
- Protection, preservation, and respect of surface and mineral private property rights in relation to mineral resource development.
- Timely mineral resource projections to aid in local, state, and federal land use planning.
- The employment of credible scientific, engineering, and economic data in decisions regarding mineral resource development.
- Support for and implementation of new technologies to develop new energy resources.
- Active participation with state and federal agencies regarding existing, pending and future mineral development actions and proposals.

#### 4.4.6 Objectives

- *State and federal agencies shall:*
  - *have efficient, stream-lined permitting processes in order to timely process and approve plans of development;*
  - *not limit or infringe upon the ability of private mineral owners to access, extract and transport their mineral resource, including in areas determined set aside for no mineral leasing on federal lands, if that determination takes place after leasing has already occurred or adequate compensation shall be provided;*
  - *provide clearly defined mapping and data to warrant any kind of cultural, paleo, plant or wildlife inventory on private lands;*
  - *recognize that cultural artifacts on private lands are owned by the private land owner, and the county shall recognize the right of the property owner to deny a cultural resource survey being conducted on privately owned lands, and shall not deny a mineral extraction permit or application due to the refusal of a property*

- owner to allow a cultural survey; and
- honor industry and company developed agreements and processes to mitigate and address competing mineral resource development.
  - Oppose the imposition of barriers to mineral resource production and development.
  - Base wildlife buffers, occupancy stipulations, and restrictions on peer reviewed and approved credible scientific data and share in writing with any affected private property owner upon request.
  - Make available voluntary, compensatory mitigation measures, both on and off-site, to mineral resource development companies conducting activities within wildlife buffers, occupancy stipulations, and restrictions.
  - Any wildlife, plant, paleontological and cultural information gathered on private property in conjunction with mineral resource development shall not be made public. The data shall be available to the private property owner.
  - Resolve conflicts between competing mineral resource industries in an effort to maximize production and sustained economic returns.
  - Base federal climate change policies on peer reviewed and credible scientific data.
  - Make available opportunities for year-round gravel crushing and screening operations where materials are needed and where it is economically feasible to extract them.
  - Make new gravel pit excavation possibilities available on state and federal lands.
  - Provide adequate bonding requirements to ensure removal and successful reclamation of abandoned energy and mineral resource projects.
  - Provide for immediate, interim, and final reclamation as conditions and development warrant with reclamation practices and standards that are appropriate to industries' specific needs.
  - Coordinate, cooperate, and consult with local governments and potentially affected stakeholders, including private landowners, on proposed and pending federal actions regarding mineral development;
  - Consider all available and relative economic data to determine and document economic impacts to the mineral industry, to county and local governments, and to county residents from any proposed land management and/or natural resource planning decisions; and
  - Coordinate, incorporate by reference, and tier to Environmental Assessments (EAs) and EISs required for projects in order to avoid duplication of EAs and EISs and costly, unnecessary delays to projects.
  - Campbell County shall actively participate as a cooperating agency in federal planning actions to ensure Campbell County remains a top producer of mineral resources.
  - Except for Congressional withdrawals, federally managed lands shall remain open and available for mineral resource exploration, development and production, unless administrative withdrawal or other action is necessary to protect the national security and withdrawal procedures are fully followed.
  - Recognize and venerate private property rights in mineral resource development;
  - Recognize and venerate the right of private property owners to determine standards and practices on their private land; and
  - Coordinate, cooperate, and consult with local governments, private property owners, private lessees and permittees, and mineral resource development companies in

BLM managed lands in Campbell County include federally owned surface and minerals, and split-estate lands where the minerals are federally owned and the surface is private owned. The BLM is required to manage these lands based upon the principles of multiple use and sustained yield. Uses of these federal lands are acknowledged in the BLM RMP for the BFO (BLM 2014). Federal mineral resource exploration, development and production on federally owned or privately owned surface lands is allowed following certain procedures. Management of oil and gas development in the BFO is governed by a separate document (BLM 2003).

The preparation of RMPs includes determining impacts through compliance with NEPA. Typically, an EIS is prepared, and the draft RMP/EIS with various management alternatives and associated impacts is subjected to review and comment from the public and from relevant agencies. In addition, Campbell County would typically be invited to participate in the preparation of the draft RMP/EIS associated with lands in Campbell County. During this participation, Campbell County can voice their opinion of various BLM and USFS management alternatives.

Campbell County has vast sub-surface mineral resources that in some areas are owned by state and federal agencies while the surface is privately owned. This is referred to as a split-estate. To ensure all ownership rights are respected, Wyoming passed W.S. 35-11-416 that requires the solid mineral developers to prepare a bond to secure payment for damages to the surface, crops, forage and tangible improvements of the surface owner and requires financial reimbursement for loss related to disruption to operations. In 2005, Wyoming enacted the Wyoming Split Estates Act, under which oil and gas operators are required to reach an agreement with the surface owner regarding the use of the surface to explore or extract oil and gas resources. The surface use agreement addresses reclamation activities.

#### **4.4.7 Campbell County Position Summary**

Based on the importance of resource extraction to the economy of Campbell County, it is the overall position of Campbell County to continue to encourage and support the current and future mineral development activities within the county.

It is Campbell County's position that, due to the split-estate that occurs throughout much of the county, the private property rights of the surface owner and neighbors be respected and recognized during federal mineral development activities. Campbell County expects that all mineral development that occurs on split-estates within the county will adhere to the Wyoming Split Estate Law and the process therein.

Campbell County recognizes the position of the BLM, as stated in Appendix A of the Buffalo Draft RMP, and the USFS, as stated in FSM 1000 Section 1013.01a (USFS 1992b), that they do not have legal authority regarding the management of private property. However, the BLM and USFS do have statutory authority and responsibility to reduce, or minimize through reasonable measures, the potential environmental impacts that may result from mineral extraction in the split-estate situation. Under NEPA, the BLM and USFS consider activities occurring on private land related to the development of federal minerals as connected actions. Therefore, the BLM

and USFS are required to analyze potential impacts and propose mitigation measures on the private land as it relates to the mineral development. Campbell County requests that such analysis and mitigation measures are developed with involvement from the private land owner.

Campbell County has concerns regarding future restrictions and regulations by federal agencies, and the corresponding impacts to the operation of current and future resource extractions within the county. It is Campbell County's intent to work with stakeholders and state and federal agencies in continuing to mitigate the impacts of future regulation changes on the mineral extraction industry.

## 4.5 Energy

Campbell County is known for its vast coal, oil and uranium reserves, gas production, mining and power generation facilities. Development of these resources and associated facilities are supported by the people of Campbell County. Mining and mineral exploration is an important historic and economic multiple use of private, state, and federal land resources. The infrastructure needed to mine, develop, produce and transport the products of these industries has been built throughout the years as needed.

Split-estate issues and eminent-domain issues must be addressed in the acquisition of land and negotiation of surface use agreements for energy development and infrastructure.

As Campbell County looks to the future, clean coal technologies, oil and gas reserves, and renewable energy sources have the potential to play an important role in developing a diverse energy portfolio in the region. In addition, as Campbell County moves toward increased coal generation, such items as emissions reductions, offsets provided by renewable energy and the use of clean coal technologies will become increasingly important. Renewable energy resources include wind, solar, and biomass.

Wyoming has benefited from the production of conventional energy sources, but has strong potential to benefit from the production of renewable energy including wind, solar, and geothermal (American Council on Renewable Energy 2013). However, only wind energy development has achieved meaningful production in Wyoming. Wyoming's hydroelectric dams are smaller, older, and owned by the federal government (U.S. Energy Information Administration [USEIA] 2013). Wyoming has no requirement of renewable energy, but does provide net metering for residential, commercial, and industrial customers with small renewable energy facilities (USEIA 2013).

The only commercial renewable energy resource in Wyoming that has been developed at a large-scale is wind energy. Wind energy provided approximately 16% of Wyoming's energy load during 2020 and has the potential to provide more than the entire electricity load for the state (Clean Power 2021). Wyoming currently has 32 wind projects with 1,553 utility-scale turbines online (USGS et al. 2021). These projects are located in Unita, Carbon, Albany, Laramie, Natrona, and Converse counties. No utility-scale project is located within Campbell County.



Campbell County has 354.4 miles of established networks of transmission mains for electrical energy to be conveyed both north, south, east, and west (Figure 4-10). They have been developed across private, state, and federal lands.

A summary of the major transmission mains and brief description is shown below (Figure 4-10).

North Interstate 90 (I-90): 40 miles north of I-90 extending from the county line of Crook and Campbell to the county line of Johnson and Campbell.

East of Wyoming State Highway 59: Series of transmission mains extending from the county line of Campbell and Converse County to Gillette.

South I-90 to Montana: 50 miles of transmission main extending from south west corner of Johnson and Campbell County to the Wyoming/Montana State Line.

#### 4.5.1 Policy

The development, enhancement, production, transmission, and transportation of all available energy resources and technologies in Campbell County without detriment to the natural resource environment.

#### 4.5.2 Goals

- Electrical power generation using low-sulfur Powder River Basin coal, oil and gas, and renewable energy resources.
- Use of land and resources to accommodate new growth and foster economic development.
- Diversification of the county's economic base through the development and demonstration of renewable energy and clean coal technologies such as fuel enhancement, coal-to-fuels, coal to value added products, and advanced combustion. Improvement of rail, pipeline, and electrical transmission facilities to transport energy resources safely and cost-effectively to markets throughout the region and the U.S., and through Gulf Coast and Pacific Coast port facilities.
- Public utility facility corridors planned, designed and located in a coordinated manner.
- Mitigation of eminent-domain and split-estate issues.
- Protection of private property rights.

### 4.5.3 Objectives

- *Encourage and support energy development projects that will ensure an affordable and reliable supply of electricity, utilizing all methods of feasible energy production.*
- *Encourage coordination and cooperation between competing energy interests on same and adjacent lands to maximize development of available energy resources.*
- *Encourage the delineation and management of oil and gas fields, and associated residual oil zones, that are amenable to tertiary recovery efforts.*
- *Adopt and encourage clean coal technologies for use in existing and proposed coal-fired power plants.*
- *Determine economic sustainability and cost to consumers in permitting power plants using any or all available sources of energy.*
- *Be a cooperating agency, in preplanning implementation, EAs, and EISs for energy development and infrastructure projects.*
- *Encourage the development of renewable energy resources and cogeneration where commercially viable and operate renewable energy projects under comparable state and federal regulations and guidelines as existing energy production methods.*
- *Obtain full bonding to ensure removal and reclamation of abandoned renewable energy projects.*
- *Develop a MOU establishing a cooperating agency relationship between the Wyoming Infrastructure Authority and Campbell County for transmission planning.*
- *Promote the investment and permitting of a regional transmission grid to efficiently facilitate the transfer of resources out-of-state. Use streamlined permitting processes to enable the placement of energy transmission infrastructure.*
- *Locate energy transmission infrastructure, such as oil and gas pipelines and high voltage electric transmission lines, in existing utility corridors. **Place new railway corridors within existing transportation corridors where feasible and with respect to private property rights.***
- *Encourage and assist carbon capture and sequestration projects and development of pipelines to transfer CO<sub>2</sub> to markets.*
- *Encourage the delineation of CO<sub>2</sub>, water, and oil and gas pipeline infrastructure to facilitate tertiary recovery efforts in Campbell County.*
- *State and Federal agencies including but not limited to: BLM, USFS, and the Wyoming State Planning Office, shall cooperate and collaborate with local governments and affected stakeholders regarding potential and proposed energy development and infrastructure projects that may impact Campbell County citizens, industries, and economy.*
- *Campbell County authorities and affected stakeholders shall receive ample notice and mapping for potential eminent domain, energy development, and infrastructure projects that may affect citizens and industries.*
- *Private property owners shall:*
  - *receive ample notice, maps, and relevant information concerning potential eminent domain actions against them in the placement of energy development and infrastructure project; and*
  - *receive full compensation for eminent domain acquisitions pursuant to state and federal law.*



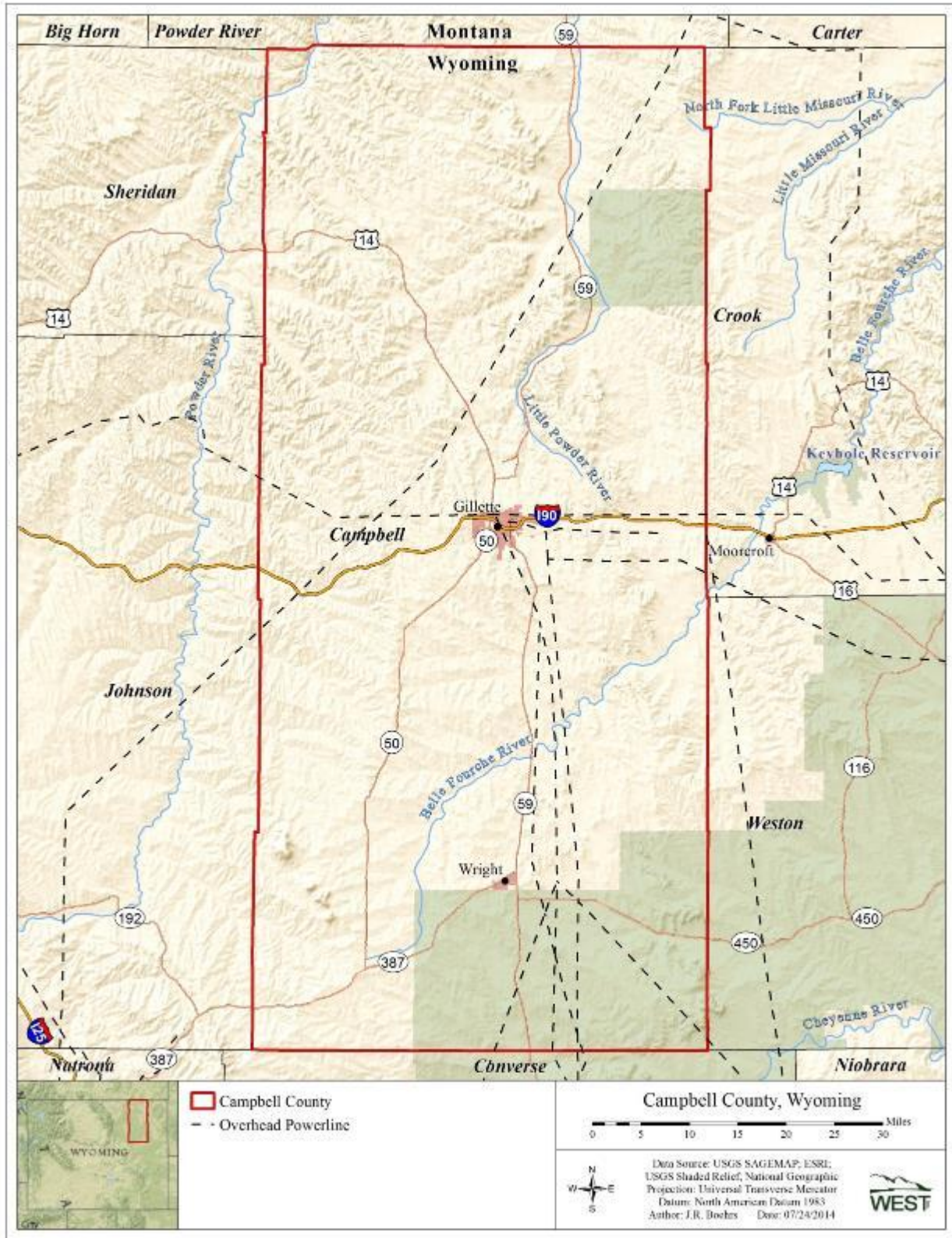


Figure 4-10. Major transmission lines in Campbell County.

## 4.6 Outdoor Recreation

The majority of Campbell County is comprised of privately owned property. In fact, only a small portion of Campbell County surface is state and federal land, which poses a challenge and presents limitations for public outdoor recreation. In addition to the small amount of public land in the county, there is limited public access to those properties, as many of them are isolated parcels surrounded by privately owned lands.

However, Campbell County supports outdoor recreation on public lands and is interested in working with state and federal agencies to manage those activities. In addition, some private landowners have demonstrated a willingness to work with state and federal agencies to create additional access to public properties. There appears to be public support for programs that increase accessibility to public lands or private properties for recreational purposes without converting privately owned land to public ownership. Campbell County citizens have historically opposed the conversion of private property into additional public lands within the county and that philosophy continues today. It is important to Campbell County that private properties and the rights associated with private land ownership are preserved into the future.

Overall, there are a broad range of outdoor recreational opportunities on state and federal lands in Campbell County, including, but not limited to, hunting, fishing, camping, nature appreciation, wildlife viewing, equestrian activities, radio-controlled aircraft flying, cycling, hiking, snowmobiling, and off-road vehicles ([ORV], including all-terrain vehicle [ATV]) use where access is available. Recreational activity in Campbell County is generally made up of local area residents and public lands are popular locations for those activities.

### 4.6.1 U.S. Forest Service- Thunder Basin National Grassland

The TBNG, managed by the Douglas Ranger District, is located in northeastern Wyoming in the Powder River Basin between the Big Horn Mountains and the Black Hills. Approximately 139,956 acres of the TBNG are located in Campbell County; the remaining acreage is located in Converse, Weston and Niobrara counties. The TBNG's Hilight Bill Geographic Area is located throughout the southeast corner of Campbell County; another, separate, small piece of the TBNG (the Spring Creek Geographic Area) is located in the area about 30 miles northeast of Gillette. Overall, the TBNG is made up of non-contiguous parcels of land, which are intermingled with other federal, state, and private properties.

The Spring Creek Geographic Area covers about 48,740 acres of land, almost completely located in Campbell County (USFS 2001). Its unique attributes include ponderosa pine forests, scenic landscapes, and hunting of pronghorn and mule deer. The Hilight Bill Geographic Area covers about 100,780 acres of land, not all of which are located in Campbell County. Minerals exploration and development (e.g., coal, uranium, oil and gas) and livestock grazing are significant activities in this area; hunting for mule deer, elk, and pronghorn is common. In addition to recreation, mining, and grazing activities, the USFS conducts various wildlife management activities related to prairie dogs and sage grouse.

According to Douglas Ranger District staff, hunting is by far the most popular recreational activity on the TBNG in Campbell County; the majority of that activity occurs in the Spring

Creek area and the adjacent Weston Hills recreation area (co-managed with the BLM). Four-wheeling is a popular activity and OHV use can be heavy in the Weston Hills area. Other minor summertime uses of the TBNG include wildflower viewing, sage grouse viewing, and prairie dog shooting. Additional allowable recreational opportunities include hiking, sightseeing, fishing, and wildlife viewing. There are no developed campgrounds; however, dispersed camping is allowed. The majority of recreational use on USFS land in Campbell County is by local residents.

#### 4.6.2 Bureau of Land Management Property

The BLM's BFO manages approximately 223,887 acres of BLM property in Campbell County. Included in that acreage are the Burnt Hollow and Weston Hills (managed jointly with the USFS) Special Recreation Management Areas (SRMA), the Fortification Creek Wilderness Study Area (WSA) and the Cabin Canyon area (Figure 4-11). The Burnt Hollow and Weston Hills SRMAs are located to the north of Gillette along Highway 59. The Fortification Creek WSA is located along Campbell County's western border; a portion of the WSA is located in Johnson County.

SRMAs are defined as areas where "the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance and/or distinctiveness, especially as compared to other areas used for recreation" (BLM 2015). Designation as an SRMA allows the BLM to "strategically emphasize a variety of recreational opportunities along with the protection of natural and cultural resources" within discrete recreational management zone boundaries. Management of recreation and visitor services is recognized as the predominant land use focus in SRMAs. Each SRMA is managed under a site-specific management plan consistent with the overall provisions for those types of areas. The Burnt Hollow and Weston Hills SRMAs each see an estimated 3,000 to 4,500 visitors per year.<sup>10</sup>

The Burnt Hollow area (Figure 4-11) is described as "more than 18,000 acres of public land in sagebrush country with dramatic geologic formations and a diversity of wildlife species. This primitive non-motorized recreation area offers hunting, backpacking, hiking, and horseback riding. Trails are not marked, but several miles of old roads provide a network for riding or hiking. Several stock water ponds and small reservoirs are located within the unit, but potable water is not provided. There are no visitor facilities within the unit." (BLM 2021a). Public access to this area is from Highway 59 and Cow Creek Road only.

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<sup>10</sup> As estimated by traffic counters at various locations; there are likely to be additional visitors that use ATV roads to access these properties that do not cross traffic counters.



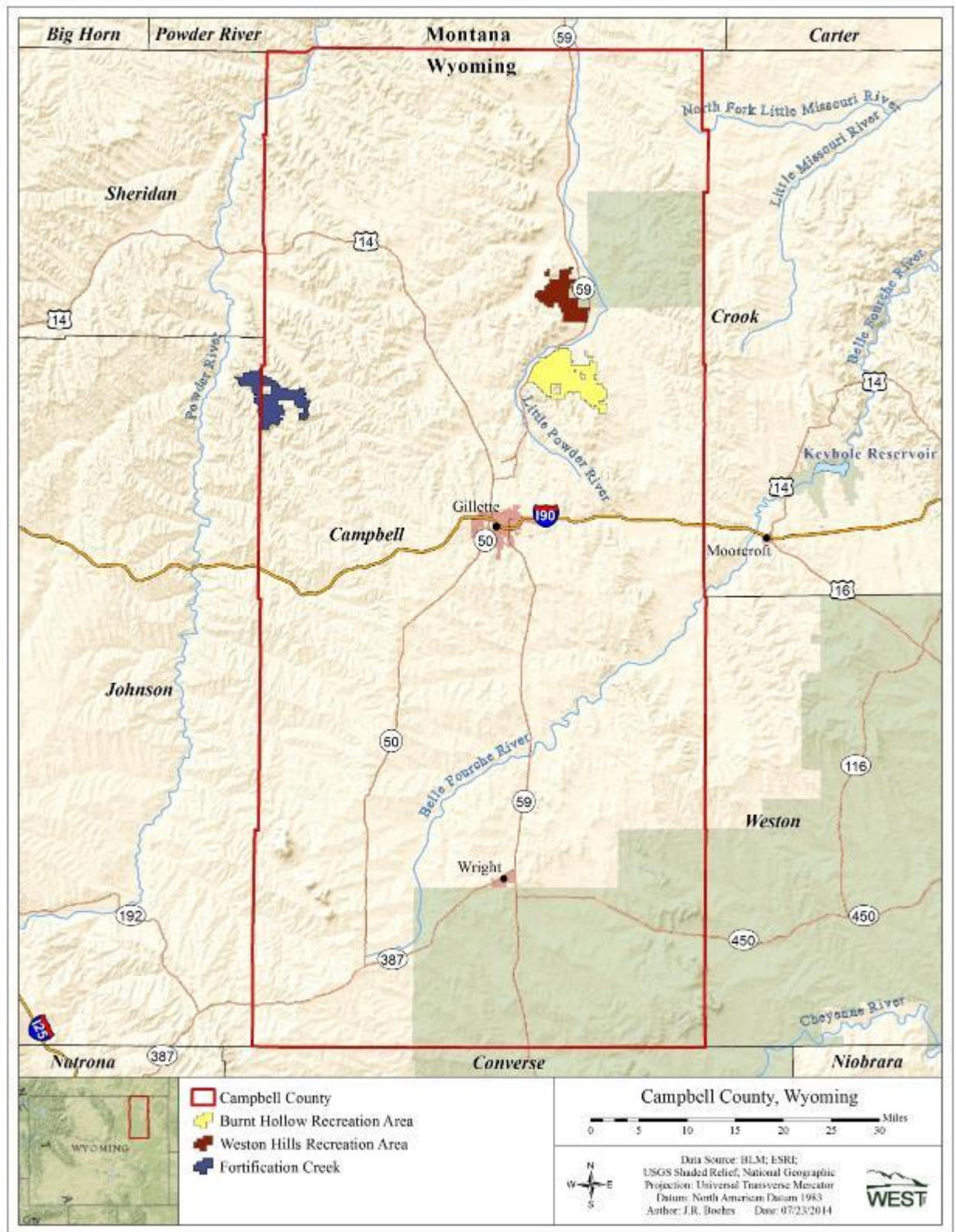


Figure 4-11. Bureau of Land Management recreation areas in Campbell County.

The Weston Hills area is a 9,500-acre area that includes about 10 miles of roads open to OHV use and another 6.4 miles of trail open to non-motorized use. The area is most popular for OHV use and hunting. Mule deer, pronghorn, elk, turkey, and eagles are present in the area. Camping is allowed and campfires are permitted in accordance with statewide fire restrictions; target shooting is prohibited. Vehicle travel in this recreation area, including all OHVs, is limited to designated routes and riders can expect challenging features along trails. Two staging areas are located near the entrance to the recreation area, as is a fishing pond (Weston Fish Pond). Visitor facilities are limited and potable water is not available (BLM 2021b).

The Cabin Canyon Management Area is a 1,400-acre area located about 22 miles southeast of Gillette and is adjacent to about an additional 2,500 acres of state-owned land. That area is designated as an Extensive Recreation Management Area (ERMA), which “requires specific management consideration in order to address recreation use, demand, or recreation and visitor services program investments...Management actions within ERMAs focus on access to the public land, conflict resolution, resource protection and visitor health and safety” (BLM 2015). Current uses of the Cabin Canyon area are predominately mineral extraction and grazing, but motorized recreational use is slowly increasing, along with hunting, camping, and nature viewing.

The WSAs “are places that have wilderness characteristics; that is a minimum size, naturalness, and outstanding opportunities for recreation which make them eligible for designation as wilderness” (BLM 2021c). WSAs are managed to protect the characteristics of the designated area “so as to maintain their existing size, naturalness, unique values, and outstanding opportunities” (BLM 2015). The Fortification Creek WSA covers about 12,419 acres of public land and 640 acres of private land. There is no direct public access to the WSA; access is controlled by adjacent private landowners and landowner permission is required to cross any private lands. An estimated 150 people per year may visit this WSA, mainly consisting of outfitters and guides and adjacent landowners. Hunting, fishing, hiking, horseback riding, camping, and other non-motorized recreational activities are permitted. The WSA has been designated as crucial year-round range for elk (BLM 2011).

BLM lands outside the recreation areas and the WSA are managed to meet basic recreational needs. Recreation is allowed, but is not the priority on those properties; they are managed to allow recreational uses that are not in conflict with the primary uses of these lands. Currently, all BLM land in Campbell County is open to the public; however, some parcels are inaccessible due to the existence of surrounding private properties or other publicly inaccessible lands. Recreation occurring on land without public access is primarily by adjacent private land owners or commercial outfitters and guides operating under a special recreation permit (SRP; BLM 2015).<sup>11</sup>

The BFO estimates a total of about 30,000 recreational visits per year to all BLM land in Campbell, Sheridan and Johnson Counties (the Buffalo Planning Area). Hunting, camping, fishing, and vehicle touring are among the most common recreational activities on BLM land in

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<sup>11</sup> SRPs are required for commercial or organized recreational uses of public lands and related waters. The BFO currently manages multiple SRPs, most of which are for commercial outfitting and guide services.

the Buffalo planning area, although numerous other activities are allowed, including horseback riding, photography, and wildlife viewing. During the summer months (June through August), BLM lands experience relatively high use for non-consumptive activities (hiking, camping); hunting activity generally occurs in the fall season (September through November) Overall, recreational use of BLM land is predominantly by local residents; currently, BLM properties do not appear to be a regional draw.

#### **4.6.3 Bankhead-Jones Land**

The Bankhead-Jones Farm Tenant Act of 1937 authorized the federal government to acquire privately owned sub-marginal agricultural land for various purposes. The majority of these lands are managed by either the USFS or the BLM. Many USFS owned and managed Bankhead-Jones lands have become National Grasslands, including the TBNG.

Campbell County has approximately 87,072 acres of Bankhead-Jones land within its borders; these properties are now a part of the TBNG and are managed by the USFS Douglas Ranger District (refer to Figure 2-1).

#### **4.6.4 Wyoming Office of State Lands and Investments Managed Properties**

The State of Wyoming owns and manages a number of non-contiguous properties (approximately 185,000 total acres) that are more or less evenly scattered throughout Campbell County in a checkerboard pattern (Wyoming Office of State Lands and Investments 2021). These properties are referred to as State Trust Lands. More than half of these state-owned parcels have no known public access, mainly due to the lack of public road access or the fact that they are surrounded by privately owned properties. Legally accessible State Trust Lands can be used for hunting, fishing, and general recreational purposes with certain restrictions, including the prohibition of OHV use, overnight camping, and hunting on cultivated land. A small number of state-owned parcels in Campbell County are closed to firearms and all motorized vehicles.

#### **4.6.5 Wyoming Department of State Parks and Cultural Resources**

The Division of State Parks, Historic Sites, and Trails (SPHST) within the Department of State Parks and Cultural Resources has statutory authority to manage recreation and historic sites and aid communities with developing recreation opportunities in Wyoming. The LX Bar Ranch, located in northwest Campbell County became a State Historic Site in 2016 and is administered by SPHST (Wyoming State Parks, Historic Sites, and Trails 2019). SPHST is currently working to develop public access to the site.

#### **4.6.6 Wyoming Game and Fish Department Managed Recreation**

The WGFD provides wildlife and habitat management and wildlife associated recreational opportunities (including fishing, hunting, and wildlife viewing) throughout the state. In Campbell County, the WGFD manages walk-in hunting access to specific private properties; stocks a number of lakes, ponds, and reservoirs; and manages hunt areas for specific game species.

##### **4.6.6.1 Access Yes Program**

The WGFD's Access Yes Program has opened up access to almost 3 million acres of private land and landlocked public lands throughout the state for the purposes of hunting and fishing



activities (WGFD 2020a).<sup>12</sup> Through the Walk-in Area Program, the WGFD has made agreements with a number of private landowners for walk-in fishing access and walk-in hunting access on specific private properties, as well as access to landlocked public acreage. The Hunter Management Program is aimed at developing agreements with landowners that control large expanses of open areas in Wyoming to enhance public access specifically for hunting opportunities. The Hunter-Landowner Assistance Program is available to private landowners that would like to open up their properties to a small number of hunters for various purposes, including the control of wildlife populations or the decrease of agricultural damage.

As of 2021, there were no agreements with private landowners for walk-in fishing access in Campbell County. The Walk-in Hunting Area program in Campbell County currently includes five large areas, ranging in size from about 1,200 acres to about 5,200 acres, and covering a total of about 12,600 private acres in the county (WGFD 2021). A large portion of the 76,000-acre Fortification Hunter Management Areas is located in western Campbell County. Several Landowner Assistance programs are also in place in the county.

#### **4.6.6.2 Fishing Opportunities**

WGFD-managed fishing areas include Donna Reservoir (north-central Campbell County), Gillette Fishing Lake (in Gillette), High Country Park Pond (west of Gillette), Panther Pond (in Wright), and Little Thunder Reservoir (outside of Wright). The WGFD-managed reservoirs, lakes and ponds are all stocked, mainly with a variety of trout species, including rainbow trout, brown trout, lake trout, golden trout, and/or brook trout. Panther Pond and Gillette Fishing Lake are probably the most popular fishing locations in the county and see the highest level of use given the ease of access to those areas. Other locations experience relatively low fishing use.

#### **4.6.6.3 Hunting Opportunities**

Hunting in Campbell County is largely focused on big game species, including pronghorn, elk, and mule deer. In 2021, the county was included in the following hunt areas:

- Pronghorn (Figure 4-12): Hunt areas 17, 18, and 19 (all located north of I-90), and areas 23, 24, 26, and 27 (south of I-90). Hunt areas 23, 26, and 27 also include portions of other counties. Area 23 is extremely productive for pronghorn, offering 3,720 pronghorn tags in 2020; that area saw a total of 8,434 hunter days in 2020. Hunt area 24 also offers a substantial number of pronghorn tags (1,100 in 2020) and saw 2,285 hunter days in 2020 (WGFD 2020b).
- Elk (Figure 4-13): The majority of Campbell County is included in hunt area 129. Hunt areas 2, 113, and 123 include portions of Campbell County. Although the elk population in the county is increasing, there are currently not many elk tags offered in the area. The elk in this area are generally large, trophy-quality elk. Hunt area 123 is one of the more popular areas in the state for elk hunting. In 2020, 399 licenses were sold for hunt area 123, which saw 7,780 hunter days (WGFD 2020b).

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<sup>12</sup> Prior to 2016, the Access Yes Program was referred as the Private Lands Public Wildlife Access Program.



- Mule Deer (Figure 4-14): Campbell County is included in hunt areas 10 (partial), 17, 18, 19, 20, 21, and 22 (partial). The mule deer population in Campbell County is decreasing, which has generally reduced the quality of the hunting experience in recent years; however, there are certain areas in the county where there are still good opportunities for hunting this species. There are some white-tail deer hunting opportunities in the county.

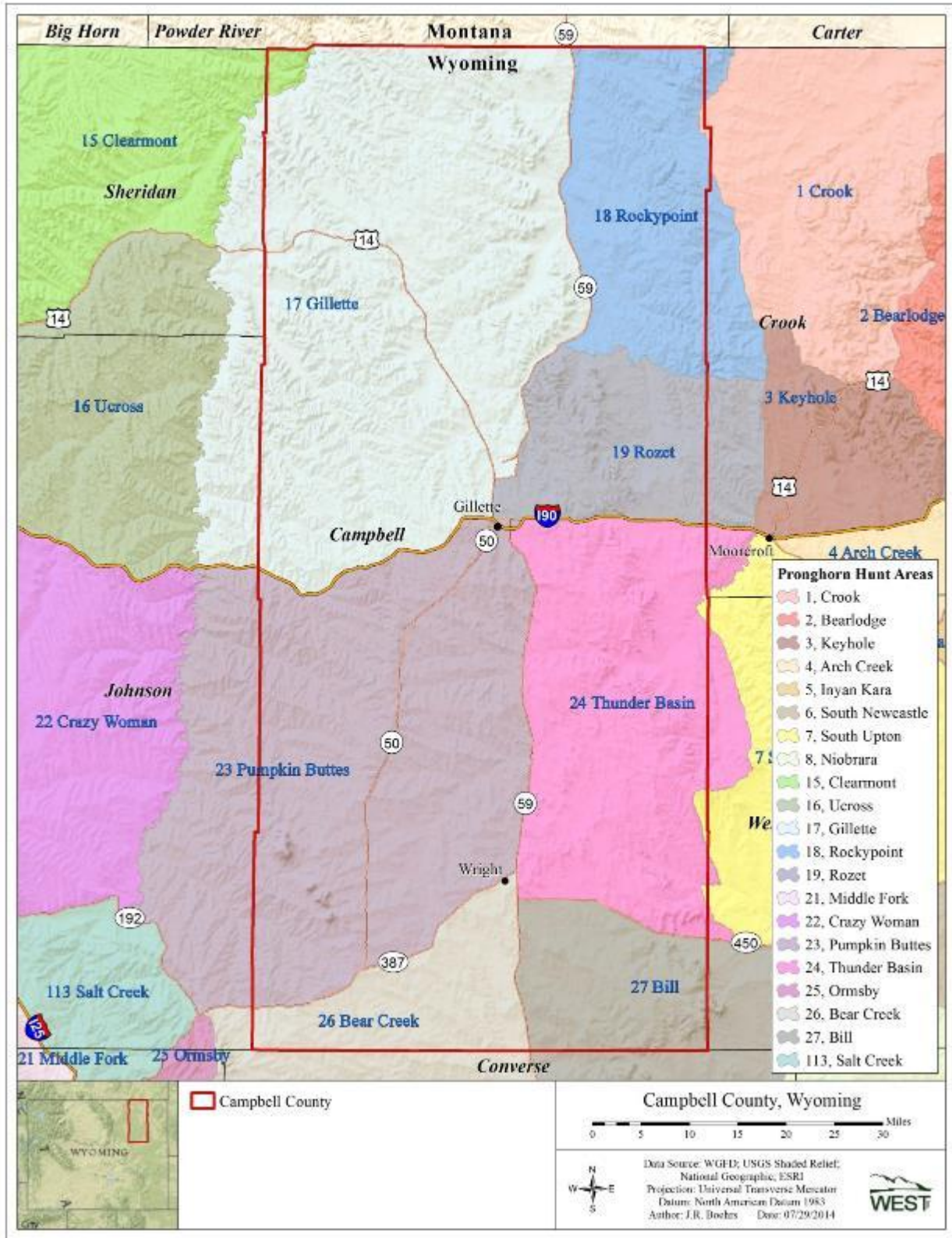


Figure 4-12. Pronghorn hunt areas in Campbell County.

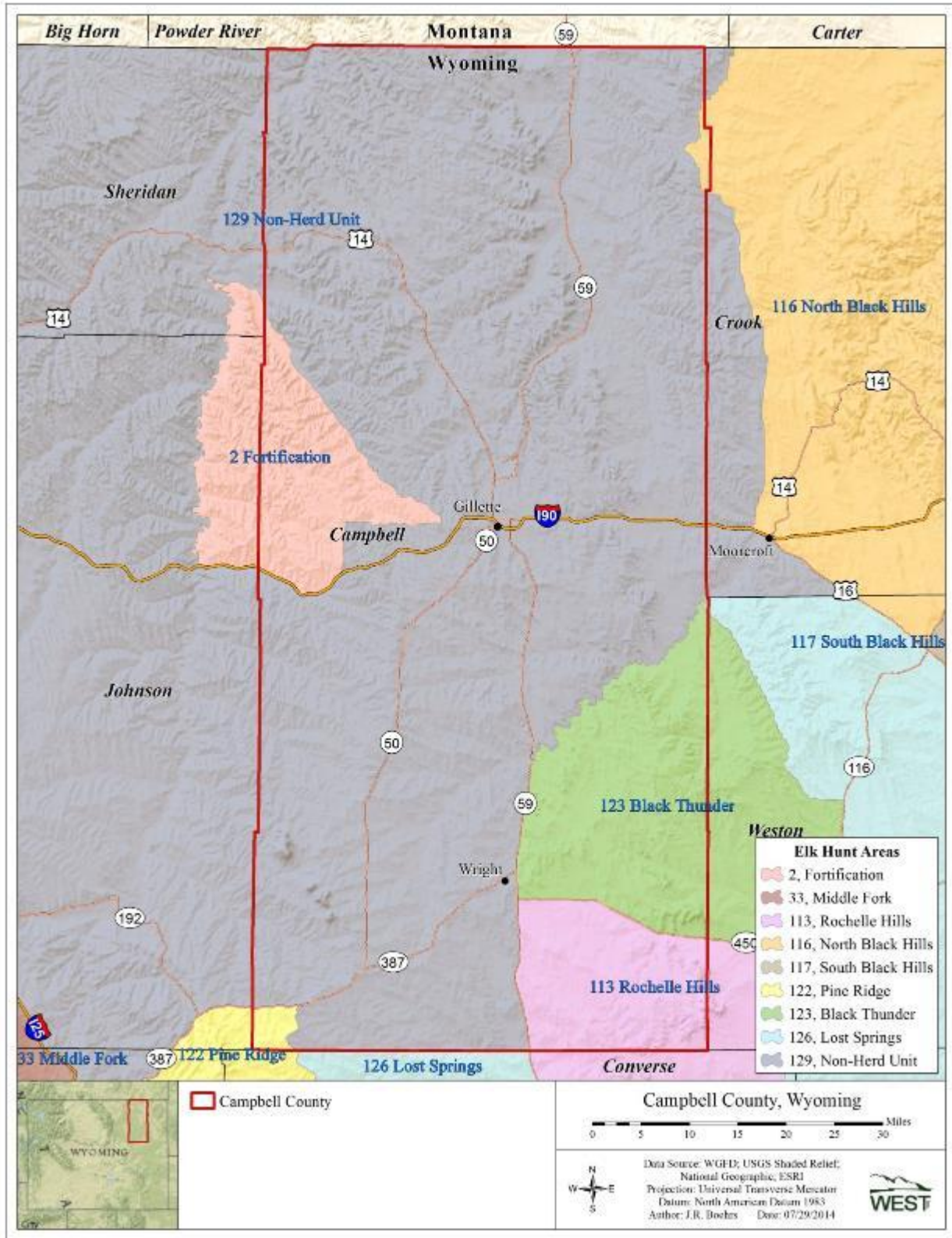


Figure 4-13. Elk hunt areas in Campbell County.



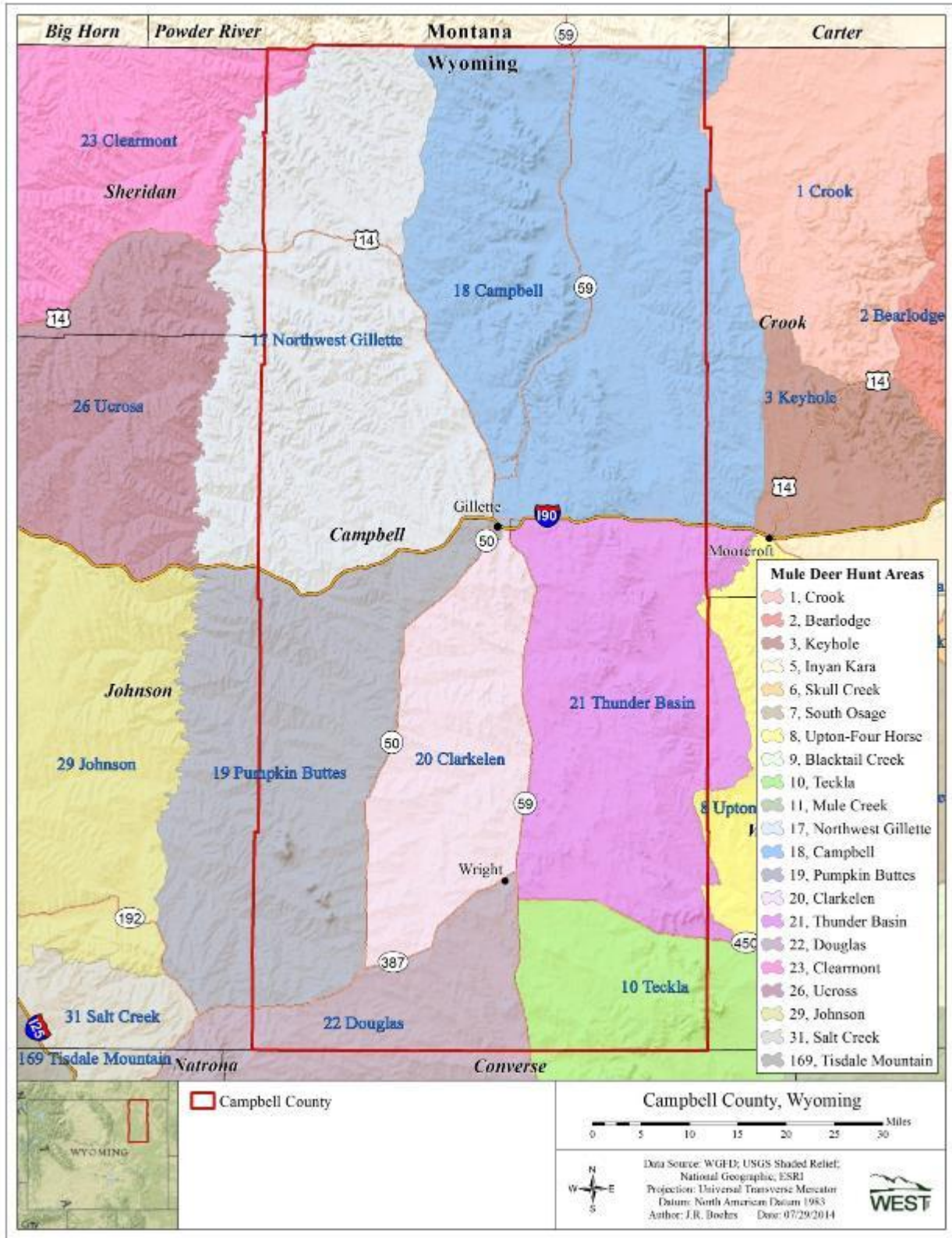


Figure 4-14. Mule deer hunt areas in Campbell County.

The abundance of private property in Campbell County results in heavy use of public lands for hunting purposes. As discussed above, the WGFD’s walk-in hunting area program has opened up many acres of private property in Campbell County to hunting activity.

#### **4.6.6.4 Recreational Economy**

Outdoor recreation generates a wide variety of economic benefits within Campbell County, including jobs, employee income, and local business activity. As of 2019, the Arts, Entertainment, and Recreation industry in Campbell County included an estimated 450 jobs.<sup>13</sup> Employment in that industry made up approximately 1.3% of total county employment in that year (Harvey Economics 2021, U.S. Department of Commerce 2021a). However, the overall outdoor recreation economy also comprises workers across many other economic sectors, most notably portions of the Accommodations and Food Service industry, Retail Trade industry, and governmental entities. As many as 1,600 total jobs in Campbell County may be associated with outdoor recreation. Wages for employees working in outdoor recreation are typically lower than for many other sectors. For example, total compensation for Retail Trade employees amounted to about \$30,000 per job, and compensation for workers in the Accommodations and Food Service industry was about \$23,400 per job in 2019; that compared to average compensation of about \$61,000 per job for all positions in Campbell County (U.S. Department of Commerce 2021b).<sup>14</sup>

The USCB’s County Business Patterns program reported 21 establishments in the Arts, Entertainment, and Recreation industry in 2019 (about 1.4% of total Campbell County establishments; USCB 2021b). The Accommodations and Food Service industry added another 116 establishments and the Retail Trade industry included about 170 establishments in the county at that time. The existence of a variety of recreational opportunities may be an added attraction to regional visitors, may promote interest in Campbell County, and is one component of the larger tourism sector of the Campbell County economy. Total travel related spending within Campbell County exceeded \$129 million in 2019, generating almost \$32 million in employee earnings, about 1,180 jobs and about \$2.0 million in local taxes (Dean Runyan Associates 2021). A portion of that spending was due to the existence of outdoor recreational activities in the county.

Hunters, anglers, and wildlife watchers in Wyoming (including residents and non-residents of Wyoming) contributed more than \$1 billion to Wyoming’s economy in 2017 (WGFD 2019). Recreators spent over \$802 million in Wyoming on trip-related expenditures (lodging, food, and transportation), equipment, licenses, and other items. In 2019, outdoor recreation of all types added about \$1.6 billion to Wyoming’s economy, including over \$734 million in wages, and supported almost 19,000 jobs across the state (U.S. Department of Commerce 2020). That level of spending reflects the interest in, and importance of, outdoor recreation to the state as a whole

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<sup>13</sup> Estimated by Harvey Economics (2021) based on historical Campbell County data obtained from the Bureau of Economic Analysis (2019). The number of individual people employed in the Arts, Entertainment, and Recreation industry is likely to be less than the number of jobs; it is common for people in this industry to be employed in multiple part-time positions. Due to the effects of the COVID-19 pandemic on employment in 2020, 2019 data was used to estimate jobs in the outdoor recreation industry.

<sup>14</sup> Compensation includes wages, salaries and supplements (employer contributions). Compensation data for the Arts, Entertainment, and Recreation industry was not disclosed for confidentiality purposes.

and to the tourism industry in particular. As the population of Campbell County increases and as interest in traveling to the county for any number of reasons grows, so too is the likelihood that recreation will be an important component in the Campbell County lifestyle and quality of life.

#### 4.6.7 Policy

Sustain and enhance outdoor recreation opportunities on state and federal lands for the citizens of the county, visitors, and tourists.

#### 4.6.8 Goals

- Coordination, consultation and cooperation with state and federal agencies to protect and expand outdoor recreation opportunities on federal or state lands.
- Support and promotion of use of negotiated agreements to provide outdoor recreation opportunities.
- Protection of resources used in outdoor recreation activities.
- Encouragement of responsible outdoor recreation use.
- Pursuance and promotion of land and water management activities and policies that enhance outdoor recreational opportunities.

#### 4.6.9 Objectives

- *Coordinate with state and federal land management agencies and seek local citizen input on land management planning decisions for outdoor recreation.*
- *Support and promote state and federal planning efforts for outdoor recreation which best reflects the culture/custom of Campbell County.*
- *Support existing access and opportunities for outdoor recreation, including hunting and fishing.*
- *Support the closing of state and federal lands that become damaged by irresponsible outdoor recreation use and re-opening once the damage has been mitigated and rehabilitated.*
- *Assist state and federal land management agencies in the prosecution of outdoor recreation users who willfully damage resources and facilities and those operating in any illegal manner.*
- *Recognize and uphold private property rights in negotiations and acquisition of public access to state and federal lands.*
- *Support land swaps in acquiring access to state and federal lands for outdoor recreation use.*
- *Oppose any net increase in state and federal lands and agencies shall provide data verifying this in any proposed acquisition of private lands.*
- *Oppose state and federal acquisition of private lands which would decrease the tax revenue stream for local governments and economic production capabilities of its citizens.*
- *Carefully consider, and oppose if warranted, perpetual conservation easements that prohibit, preclude, or impair the ability of future generations to utilize land resources for future needs.*

- *State and federal agencies shall:*
  - *cooperate, consult, and coordinate with local governments, private landowners, and lease holders potentially impacted by a special recreation area designation;*
  - *work with Campbell County to educate outdoor recreation users on multiple use mandates and promote respect and cooperation between recreation users;*
  - *provide and maintain signage identifying agency lands available to the public for outdoor recreation and identifying private lands with no trespassing/private property signs in the Thunder Basin National Grassland and other intermingled private/state/federal lands;*
  - *seek to avoid and minimize resource user conflicts and impacts;*
  - *coordinate, consult, and cooperate with local government agencies and private landowners who are negatively impacted by outdoor recreation conflicts and damage to resources by recreation users;*
  - *recognize the intermingling of private lands within agency lands and coordinate and cooperate with private landowners in planning decisions and oversight of outdoor recreation; and*
  - *make updated and current maps available to the public that clearly identify agency lands available for public outdoor recreation.*
- *State and federal land management decisions shall:*
  - *comply with recommended licensing/harvesting numbers as articulated by the WGFC;*
  - *not favor one recreation use to the detriment of others;*
  - *promote recreation that benefits the larger general public, not special interest(s); and*
  - *reflect the needs of local recreational business in Campbell County.*

## 4.7 Transportation, Rights-of-Ways, and Easements

Campbell County has an extensive network of county roads, state highways, railways, and federal interstate system available for transportation products to and from markets, and enabling citizens to travel to their various destinations (Figure 4-15). The rights of way and easements (hereinafter collectively called ROWs) for these networks were developed across private, state, and federal lands through different methods of acquisition.

The Campbell County roadway network is based on a range of different types of facilities with varying characteristics. These facilities range from interstate highways, which serve higher speed longer distance trips, to local streets that are designed for lower speeds and shorter distances.





Figure 4-15. Transportation network in Campbell County.

#### 4.7.1 Roadway Functional Classifications

- **Interstates:** Roadways that serve high speed and high volume regional traffic. Access to Freeways is limited to grade separated interchanges without mainline traffic signals (e.g., I-90).
- **State Highways:** Roadways that serve high speed and high volume regional traffic. Access is limited without traffic signals (e.g., State Highway 59, State Highway 50).
- **Principal Arterials:** Roadways that serve higher speed and higher volume traffic over long distances. Access is highly controlled with a limited number of intersections, medians with infrequent openings, and no direct parcel access. Adjacent existing and future land uses shall be serviced by other network roadways, service roads and inter parcel connections (e.g., Gillette, Wyoming: State Highway 59, State Highway 50).
- **Minor Arterials:** Roadways that currently serve higher speed and higher volume traffic over medium distances. Access is restricted through prescribed distances between intersections, use of medians, and/or limited direct parcel access.
- **Collectors:** Roadways that service as links between local streets facilities and arterial facilities over medium to long distances, outside of or adjacent to subdivision developments. Collectors are managed to maximize the safe operation of through movements and to distribute traffic to local access.
- **Locals:** Roadways that provide direct parcel access and deliver parcel-generated trips to the collector network (e.g., many rural subdivision and neighborhood streets).

#### 4.7.2 Major Roadways and Primary Uses

A summary of the major roadways signed name and brief description is shown below.

**I-90:** 37.47 miles of mainline divided interstate roadway.

**Wyoming State Highway 59:** 113.60 miles of undivided 2-lane roadway extending from the county line of Campbell and Converse County to the Mountain State line.

**Wyoming State Highway 50:** 51.27 miles of undivided 2-lane roadway extending from Wyoming State Highway 59 to Wyoming State Highway 387.

**Wyoming State Highway 51:** 20.68 miles of undivided 2-lane roadway extending from Wyoming State Highway 59 to the eastern boundary of Campbell County where it abuts Crook County.

**U.S. Highway 16:** 41.90 miles of undivided 2-lane roadway extending from the county line of Campbell County and Johnson County to Wyoming State Highway 59.

**Wyoming State Highway 450:** 20.62 miles of undivided 2-lane roadway extending from the county line of Campbell County and Weston County to State Highway 59.

**Wyoming State Highway 387:** 32.53 miles of undivided 2-lane roadway extending from the county line of Campbell County and Johnson County to Wyoming State Highway 59.

### 4.7.3 Primary Issues of Existing Transportation Network

- **Sustainable Roadway Maintenance/ Rehabilitation**

Typical roadways are designed to last between 20 and 25 years, or longer. With regular maintenance, the roadway will remain in good condition over its lifetime. However, if the road is under-designed or if maintenance is not preformed regularly, roads deteriorate quickly.

Based on the *Campbell County, Wyoming: 2013 Comprehensive Plan* (CCDPZ 2013) a majority of subdivision roads within the county are publicly owned and maintenance is the responsibility of the landowners along the roadway. The Campbell County Board of Commissioners currently offers a matching grant program to homeowners and subdivisions that form Improvement and Service Districts to help maintenance costs.

As costs increase, the sustainability of implementing and funding proper maintenance may become an issue over an extended period of time.

- **Dust and Air Pollution**

The network of unpaved County roads and subdivision roads provides an efficient and cost-effective means of developing a roadway network. However, with this type of roadway surface, depending on climatic conditions, dust pollution could have negative impacts to residents of Campbell County.

### 4.7.4 Policy

Development of new, efficient transportation methods and ROWs, and preservation of active transportation methods and ROWs across private, state, and federal lands without detriment to the natural resource environment.

### 4.7.5 Goals

- Preservation of active ROWs and routes across state and federal land in pursuit of mining, ranching, farming, logging, recreational activities, motorized vehicle use, and all other historic uses.
- Preservation and development of highways and transportation systems, railroads, utility corridors, and other forms of ROWs and routes to best serve Campbell County and its citizens.
- Enhancement of economic development with efficient transportation methods, routes, and ROWs.
- Mitigation of eminent domain issues in development of transportation ROWs.
- Local involvement in roadless designations by the USFWS.
- Reasonable access for all property owners to their property.



#### 4.7.6 Objectives

- *Utilize mitigation and reclamation policies for “utility” or “infrastructure” ROWs, easements, and routes.*
- *Oppose road closures, obliterations, re-construction, retirement, or any other term used where there may be possible Revised Statutes (R.S.) 2477 (1866; see agency mandates) ROWs across federal lands.*
- *State and federal agencies shall utilize public input meetings and collaborative decision making with Campbell County agencies and stakeholders in developing new transportation routes.*
- *Support one (1) nomination of a county representative to be a member of the National Association of Counties Public Lands Steering Committee and the Transportation Steering Committee.*
- *Notify, within a reasonable time period, all potentially affected land holders regarding proposed new transportation routes, re-routing, or closure of transportation routes affecting their property by entity proposing such routes.*
- *State, federal, and local agencies shall:*
  - *maintain, and provide to the public, updated mapping and visual data regarding proposed and existing transportation ROWs; and*
  - *incorporate Campbell County’s current transportation plan into their transportation planning process.*
- *State, federal and private transportation projects sited on state and federal lands where such lands are available.*
- *Streamline the permitting processes on state and federal lands in order to facilitate location of state, federal, and private transportation projects on such lands.*
- *Do not encumber or restrict private property rights or privileges with access to or across state or federal lands.*

The objective of reclamation is to return the disturbed areas to approximately pre-construction use and capability. This involves the treatment of soil as necessary to preserve approximate pre-construction capability and the stabilization of the work surface in a manner consistent with the initial land use. The type necessary will be dependent upon the existing environmental conditions (e.g., rangeland, stream).

An 1866 statute known as R.S. 2477 granted ROWs for the construction of highways over unreserved public lands. On January 6, 2003, the USDI published broad new “disclaimer of interest” regulations under Section 315 of the FLPMA and stated that disclaimers would be used to acknowledge R.S. 2477 ROWs. Congress has directed that no rules “pertaining to” recognition or validity of an R.S. 2477 ROWs can be effective unless authorized by Congress, and the use of disclaimers in the R.S. 2477 context may be controversial. More recently, the USDI has issued new guidance regarding recognition of R.S. 2477 ROWs that again mentions the use of disclaimers for that purpose. This report discusses R.S. 2477 ROWs, the disclaimer regulations, and USDI guidance, the congressional directive, and legislation. It will be updated as warranted.

The 1866 statute that became R.S. 2477 stated that “. . . the right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted.” The FLPMA repealed this act, but protected valid R.S. 2477 ROWs in existence at the time of repeal. Certain ROWs asserted under R.S. 2477 may be controversial because they run either through undeveloped areas that might otherwise qualify for wilderness designation, or across lands that are now private or included in federal reserves (such as parks or national forests).

In accordance with Section 102(a)(2), FLPMA (P.L. 94-579 [1976]), "The national interest will be best realized if the public lands . . . and their present and future use is projected through a land use planning process coordinated with other state and federal planning efforts."

Furthermore, in accordance with Section 309(a), (P.L. 95-514 [1978]), “The secretary shall establish advisory councils of not less than ten and not more than fifteen members appointed by him from among persons who are representative of the major citizens’ interests concerning problems relating to land use planning or the management of public lands located within the area for which an advisory council is established.”

Development of MOU establishing a cooperation agency relationship between the BLM Casper Field Office and Campbell County establishing a cooperating agency relationship in transportation planning.

The Wyoming Transportation Commission governs activities of the WYDOT (W.S. 24-2-101). The commission comprises of seven members appointed by the governor, with approval of the Senate. Board of County Commissioners are appointed to 6-year terms and they represent districts that include three or four counties.

Each county within a commission district is represented, in turn, by successive appointments. Campbell County is within Commission District 4, comprising Sheridan, Johnson, and Campbell counties. State law requires the minority party be represented on the commission. The commission generally meets monthly.

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## Acronyms

Acronym or Abbreviation	Definition
°	degree
µm	micrometer (one millionth of a meter)
µg/m <sup>3</sup>	microgram (one millionth of a gram) per cubic meter (of air)
ADMB	Animal Damage Management Board
APD	Application to Drill
APHIS	Animal and Plant Health Inspection Service
AQRVs	air quality related values
ARPA	Archaeological Resources Protection Act of 1979
ATV	all-terrain vehicle
AUM	Animal Unit Month
BACT	Best Available Control Technology
bbls	barrels
BP	Before Present
BFO	Buffalo Field Office
BGEPA	Bald and Golden Eagle Protection Act of 1940
BLM	Bureau of Land Management
BMP	Best Management Practice
C6 S2	Chapter 6 Section 2
CAA	Clean Air Act
CAFO	Concentrated Animal Feeding Operation
CAP	criteria air pollutants
CBI	Community Builders, Inc.
CBM	coal bed methane
CCA	Candidate Conservation Agreement
CCAA	Candidate Conservation Agreement with Assurances
CCCD	Campbell County Conservation District
CCDPZ	Campbell County Division of Planning and Zoning
CCEDC	Campbell County Economic Development Corporation
CCWPD	Campbell County Weed and Pest District
CDA	Concentrated Development Area
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CI	Compression ignition
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COA	conditions of approval
Conc.	concentration
CRP	Conservation Reserve Program
CWA	Clean Water Act of 1972
EA	Environmental Assessment
EDRR	early detection and rapid response
EGUs	electric generating units
EIS	Environmental Impact Statement
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act of 1973

<b>Acronym or Abbreviation</b>	<b>Definition</b>
ESD	Ecological Site Description
F	Fahrenheit
FHA	Federal Highway Administration
FLPMA	Federal Land Policy and Management Act of 1976
FR	Federal Register
FSH	(U.S.) Forest Service Handbook
FSM	(U.S.) Forest Service Manual
HAP	hazardous air pollutant
HCP	Habitat Conservation Plan
hr	hour
I-90	Interstate 90
IMPLAN	Impact analysis for planning
JPAD/NPL	Jonah-Pinedale Anticline Development/ Normalized Pressure Lance
LMP	land management plan
LQD	Land Quality Division
LRMP	Land and Resource Management Plan
MACT	Maximum Available Control Technology
MBTA	Migratory Bird Treaty Act of 1918
Mcf	thousand cubic feet
MOU	Memorandum of Understanding
MW	megawatt
NAA	nonattainment area
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NASS	National Agricultural Statistics Service
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emission Standards for Hazardous Air Pollutants
NEWEDC	Northeast Wyoming Economic Development Corporation
NHPA	National Historic Preservation Act of 1966
NH <sub>3</sub>	ammonia
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxide
NPS	National Parks Service
NRCS	Natural Resource Conservation Service
NRLUP	Campbell County Natural Resource Land Use Plan
O&G	oil and gas
OHV	off-highway vehicle
P&A	plugged and abandoned (wells)
Pb	lead
percent	percentile
P.L.	Public Law
PM	particulate matter
PM <sub>2.5</sub>	fine particulate matter (diameter less than or equal to 2.5 microns)
PM <sub>10</sub>	inhalable particulate matter (diameter less than or equal to 10 microns)
ppb	parts per billion
ppm	parts per million
PSD	Prevention of Significant Deterioration

<b>Acronym or Abbreviation</b>	<b>Definition</b>
Region 2	Rocky Mountain Region
RIMS	Regional Input-Output Modeling System
RMP	Resource Management Plan
ROW	right-of-way
RS	Revised Statutes
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SCR	selective catalytic reduction
SEO	State Engineer's Office
SGCN	Species of Greatest Conservation Need
SHA	Safe Harbor Agreement
SHP	Strategic Habitat Plan
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMZ	Streamside Management Zone
SNCR	selective non-catalytic reduction
SOP	standard operating procedure
SO <sub>2</sub>	sulfur dioxide
SOP	standard operating procedures
SMZ	Streamside Management Zones
SRP	Special Recreation Permit
SWAP	State Wildlife Action Plan
TBNG	Thunder Basin National Grassland
TCP	Traditional Cultural Property
TMDL	Total Maximum Daily Loads
tpy	tons per year
TRB	Transportation Research Board
UGRB	Upper Green River Basin
U.S.	United States
USACE	US Army Corps of Engineers
USEIA	U.S. Energy Information Administration
USEPA	U.S. Environmental Protection Agency
USC	U.S. Code
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UW	University of Wyoming
VOC	volatile organic compound
VRM	Visual Resource Management
W.S.	Wyoming Statute
WAAQS	Wyoming Ambient Air Quality Standards
WAFWA	Western Association of Fish and Wildlife Agencies
WDA	Wyoming Department of Agriculture
WGFD	Wyoming Game and Fish Department
WGFC	Wyoming Game and Fish Commission
WMWG	Western Monarch Working Group
WMP	Watershed Monitoring Program

<b>Acronym or Abbreviation</b>	<b>Definition</b>
WNRT	Wildlife and Natural Resource Trust
WOGCC	Wyoming Oil and Gas Conservation Commission
WS	Wildlife Services
WSA	Wilderness Study Area
WSEO	Wyoming State Engineers Office
WSFD	Wyoming State Forestry Division
WWDC	Wyoming Water Development Commission
WWPC	Wyoming Weed and Pest Control
WDEQ	Wyoming Department of Environmental Quality
WYDOT	Wyoming Department of Transportation

## Scientific Names, and Summary Tables of Sensitive Species, and of Noxious Weeds and Invasive Species

<b>Animal Diseases</b>		
<b>Parasitic Diseases</b>		
<b>Common Name of Disease</b>	<b>Caused by</b>	<b>Scientific name of causative pathogen</b>
babesiosis (in humans)	Apicomplexa protozoans	<i>Babesia</i> spp., usually <i>B. microti</i>
babesiosis (in cattle and other ungulates)	Apicomplexa protozoans	<i>Babesia bigemina</i> and <i>B. bovis</i>
toxoplasmosis	Toxoplasma protozoans	<i>Toxoplasma gondii</i>
<b>Bacterial Diseases</b>		
<b>Common Name of Disease</b>	<b>Caused by</b>	<b>Scientific name of causative pathogen</b>
bubonic plague (humans)	coccobacilli	<i>Yersinia pestis</i>
sylvatic plague (animals)	coccobacilli	<i>Yersinia pestis</i>
brucellosis	coccobacilli	<i>Brucella abortus</i>
tularemia	coccobacilli	<i>Francisella tularensis</i>
plague	coccobacilli	<i>Yersinia pestis</i>
Rocky Mountain spotted tick fever	coccobacilli	<i>Rickettsia rickettsii</i>
Lyme disease	spirochete	<i>Borrelia</i> spp.
tuberculosis	mycobacteria	<i>Mycobacterium tuberculosis</i>
<b>Viral Disease</b>		
<b>Common Name of Disease</b>	<b>Caused by</b>	<b>Scientific name of causative pathogen</b>
West Nile virus	virus	<i>Flavivirus</i> spp.
rabies	virus	<i>Lyssavirus</i>
<b>Prion Diseases</b>		
<b>Common Name of Disease</b>	<b>Caused by</b>	<b>Name of causative pathogen</b>
chronic wasting disease	transmissible spongiform encephalopathy	prions
<b>Plant Diseases</b>		
<b>Fungal Diseases</b>		
<b>Common Name of Disease</b>	<b>Caused by</b>	<b>Scientific name of causative pathogen</b>
white pine blister rust	Basidiomycota fungus	<i>Cronartium ribicola</i>
western gall rust	Basidiomycota fungus	<i>Peridermium harknessii</i>
Dutch elm disease	Ascomycota fungus	<i>Ophiostoma</i> spp.
chestnut blight	Ascomycota fungus	<i>Cryphonectria parasitica</i>
“blue stain”	“blue stain” fungus	<i>Ophiostoma</i> and <i>Ceratocystis</i> spp.

Common Name	Scientific Name
<b>Mammals</b>	
Abert's squirrel	<i>Sciurus aberti</i>
American badger	<i>Taxidea taxus</i>
American hog-nosed skunk	<i>Conepatus leuconotus</i>
American marten	<i>Martes americana</i>
beaver	<i>Castor canadensis</i>
bison	<i>Bison</i> spp.
bison (modern bison)	<i>Bison bison</i>
black-footed ferret	<i>Mustela nigripes</i>
black-tailed jackrabbit	<i>Lepus californicus</i>
black-tailed prairie dog	<i>Cynomys ludovicianus</i>
burro	<i>Equus asinus</i>
cat (stray or feral)	<i>Felis catus</i>
cattle (also dairy cow, beef)	<i>Bos taurus</i>
coyote	<i>Canis latrans</i>
deer mouse	<i>Peromyscus maniculatus</i>
desert bighorn sheep	<i>Ovis canadensis nelsoni</i>
desert cottontail	<i>Sylvilagus audubonii</i>
eastern cottontail	<i>Sylvilagus floridanus</i>
eastern fox squirrel	<i>Sciurus niger</i>
elk	<i>Cervus canadensis</i>
fringed myotis	<i>Myotis thysanodes</i>
gray wolf	<i>Canis lupus</i>
grizzly bear	<i>Ursus arctos</i>
ground squirrels	<i>Spermophilus</i> spp.
Gunnison's prairie dog	<i>Cynomys gunnisoni</i>
hoary bat	<i>Lasiurus cinereus</i>
horse	<i>Equus ferus caballus</i>
jackrabbit	<i>Lepus</i> spp.
kangaroo rat	<i>Dipodomys ordii</i>
kit fox	<i>Vulpes macrotis</i>
long-eared myotis	<i>Myotis evotis</i>
mammoth	<i>Mammuthus</i> spp.
mastodon	<i>Mammut</i> spp.
mountain cottontail	<i>Sylvilagus nutallii</i>
mountain lion	<i>Puma concolor</i>
mule deer	<i>Odocoileus hemionus</i>
New Mexico meadow jumping mouse	<i>Zapus hudsonius luteus</i>
North American porcupine	<i>Erethizon dorsatum</i>
northern long-eared bat	<i>Myotis septentrionalis</i>
olive-backed pocket mouse	<i>Perognathus fasciatus</i>
porcupine	<i>Erethizon dorsatum</i>
prairie dog	<i>Cynomys</i> spp.
pronghorn	<i>Antilocapra americana</i>
pygmy rabbit	<i>Brachylagus idahoensis</i>
pygmy shrew	<i>Sorex hoyi</i>
raccoon	<i>Procyon lotor</i>
red fox	<i>Vulpes vulpes</i>
red squirrel	<i>Tamiasciurus hudsonicus</i>
river otter	<i>Lontra canadensis</i>
Rocky Mountain bighorn sheep	<i>Ovis canadensis canadensis</i>
sheep (also ewe)	<i>Ovis aries</i>

<b>Common Name</b>	<b>Scientific Name</b>
spotted bat	<i>Euderma maculatum</i>
swift fox	<i>Vulpes velox</i>
swine	<i>Sus domesticus (scrofa)</i>
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>
water vole	<i>Microtus richardsoni</i>
white-tailed deer	<i>Odocoileus virginianus</i>
white-tailed prairie dog	<i>Cynomys leucurus</i>
Wyoming pocket gopher	<i>Thomomys clusius</i>

### **Birds**

American bittern	<i>Botaurus lentiginosus</i>
American peregrine falcon	<i>Falco peregrinus anatum</i>
Baird's sparrow	<i>Ammodramus bairdii</i>
bald eagle	<i>Haliaeetus leucocephalus</i>
black swift	<i>Cypseloides niger</i>
black tern	<i>Chlidonias niger</i>
black-backed woodpecker	<i>Picoides arcticus</i>
boreal owl	<i>Aegolius funereus</i>
Brewer's sparrow	<i>Spizella breweri</i>
burrowing owl	<i>Athene cunicularia</i>
Cassin's sparrow	<i>Aimophila cassinii</i>
chestnut-collared longspur	<i>Calcarius ornatus</i>
chicken	<i>Gallus gallus</i>
chipping sparrow	<i>Spizella passerine</i>
Columbian sharp-tailed grouse	<i>Tympanuchus phasianellus columbianus</i>
Eurasian collared dove	<i>Streptopelia decaocto</i>
European starling	<i>Sturnus vulgaris</i>
ferruginous hawk	<i>Buteo regalis</i>
flammulated owl	<i>Otus flammeolus</i>
golden eagle	<i>Aquila chrysaetos</i>
grasshopper sparrow	<i>Ammodramus savannarum</i>
greater prairie-chicken	<i>Tympanuchus cupido</i>
greater sage-grouse	<i>Centrocercus urophasianus</i>
harlequin duck	<i>Histrionicus histrionicus</i>
horned lark	<i>Eremophila alpestris</i>
house sparrow	<i>Passer domesticus</i>
lark bunting	<i>Calamospiza melanocorys</i>
lark sparrow	<i>Chondestes grammacus</i>
Lewis's woodpecker	<i>Melanerpes lewis</i>
loggerhead shrike	<i>Lanius ludovicianus</i>
long-billed curlew	<i>Numenius americanus</i>
mountain bluebird	<i>Sialia currucoides</i>
mountain plover	<i>Charadrius montanus</i>
mourning dove	<i>Zenaida macroura</i>
northern flicker	<i>Colaptes auratus</i>
northern goshawk	<i>Accipiter gentilis</i>
northern harrier	<i>Circus hudsonius</i>
olive-sided flycatcher	<i>Contopus cooperi</i>
peregrine falcon	<i>Falco peregrinus</i>
prairie falcon	<i>Falco mexicanus</i>
purple martin	<i>Progne subis</i>
red-winged blackbird	<i>Agelaius phoeniceus</i>
rock pigeon	<i>Columba livia</i>
sage sparrow	<i>Amphispiza belli</i>
sage thrasher	<i>Oreoscoptes montanus</i>



<b>Common Name</b>	<b>Scientific Name</b>
sage-grouse	<i>Centrocercus</i> spp.
sandhill crane	<i>Grus canadensis</i>
Savannah sparrow	<i>Passerculus sandwichensis</i>
sharp-tailed grouse	<i>Tympanuchus phasianellus</i>
short-eared owl	<i>Asio flammeus</i>
song sparrow	<i>Melospiza melodia</i>
Sprague's pipit	<i>Anthus spragueii</i>
Swainson's hawk	<i>Buteo swainsoni</i>
thick-billed longspur	<i>Calcarius mccownii</i>
trumpeter swan	<i>Cygnus buccinator</i>
vesper sparrow	<i>Pooecetes gramineus</i>
western burrowing owl	<i>Athene cunicularia</i>
western meadowlark	<i>Sturnella neglecta</i>
white-faced ibis	<i>Plegadis chichi</i>
white-tailed ptarmigan	<i>Lagopus leucura</i>
yellow-billed cuckoo	<i>Coccyzus americanus</i>
<b>Reptiles</b>	
alligator	<i>Alligator mississippiensis</i>
Black Hills redbelly snake	<i>Storeria occipitomaculata pahasapae</i>
bull snake	<i>Pituophis catenifer sayi</i>
desert massasauga	<i>Sistrurus catenatus edwardsii</i>
greater short-horned lizard	<i>Phrynosoma hernandesi</i>
prairie rattlesnake	<i>Crotalus viridis</i>
<b>Amphibians</b>	
boreal toad	<i>Anaxyrus boreas boreas</i>
Columbia (or Bighorn Mountain) spotted frog	<i>Rana luteiventris</i>
northern leopard frog	<i>Lithobates (Rana) pipiens</i>
plains leopard frog	<i>Lithobates blairi</i>
wood frog	<i>Lithobates sylvaticus</i>
<b>Fish</b>	
black bullhead	<i>Ameiurus melas</i>
bluegill	<i>Lepomis macrochirus</i>
bluehead sucker	<i>Catostomus discobolus</i>
brook trout	<i>Salvelinus fontinalis</i>
brown trout	<i>Salmo trutta</i>
catfish	<i>Ictalurus punctatus</i>
channel catfish	<i>Ictalurus punctatus</i>
Colorado River cutthroat	<i>Oncorhynchus clarkii pleuriticus</i>
finescale dace	<i>Phoxinus neogaeus</i>
flannelmouth sucker	<i>Catostomus latipinnis</i>
flathead chub	<i>Platygobio gracilis</i>
golden trout	<i>Oncorhynchus aguabonita</i>
green sunfish	<i>Lepomis cyanellus</i>
hornyhead chub	<i>Nocomis biguttatus</i>
lake chub	<i>Couesius plumbeus</i>
lake trout	<i>Salvelinus namaycush</i>
largemouth bass	<i>Micropterus salmoides</i>
mountain sucker	<i>Catostomus platyrhynchus</i>
northern redbelly dace	<i>Phoxinus eos</i>
pearl dace	<i>Margariscus margarita</i>
plains minnow	<i>Hybognathus placitus</i>
plains topminnow	<i>Fundulus sciadicus</i>
rainbow trout	<i>Oncorhynchus mykiss</i>
Rio Grande chub	<i>Gila pandora</i>

<b>Common Name</b>	<b>Scientific Name</b>
Rio Grande cutthroat	<i>Oncorhynchus clarkii virginalis</i>
Rio Grande sucker	<i>Catostomus plebeius</i>
rock bass	<i>Ambloplites rupestris</i>
roundtail chub	<i>Gila robusta</i>
sauger	<i>Sander canadensis</i>
shovelnose sturgeon	<i>Scaphirhynchus platyrhynchus</i>
small-mouth bass	<i>Micropterus dolomieu</i>
southern redbelly dace	<i>Phoxinus erythrogaster</i>
stonecat	<i>Noturus flavus</i>
sturgeon chub	<i>Macrhybopsis gelida</i>
walleye	<i>Sander vitreus</i>
Yellowstone cutthroat trout	<i>Oncorhynchus clarkia bouvieri</i>
<b>Insects and Other Arthropods</b>	
Arapahoe snowfly	<i>Capnia arapahoe</i>
beet leafhopper	<i>Circulifer tenellus</i>
cattle fever tick	<i>Boophilus annulatus</i> and <i>B. microplus</i>
emerald ash borer	<i>Agrilus planipennis</i>
grasshoppers	<i>Caelifera</i> spp.
Great Basin silverspot	<i>Speyeria nokomis nokomis</i>
gypsy moth	<i>Lymantria dispar</i>
Hudsonian emerald	<i>Somatochlora hudsonica</i>
ips beetle	<i>Ips pini</i>
monarch butterfly	<i>Danaus plexippus</i>
Mormon cricket	<i>Anabrus simplex</i>
mosquito	<i>Culicidae</i> spp.
mountain pine beetle	<i>Dendroctonus ponderosae</i>
Nokomis fritillary	<i>Speyeria nokomis</i>
Ottoo skipper	<i>Hesperia ottoe</i>
regal fritillary	<i>Speyeria idalia</i>
Susan's purse-making caddisfly	<i>Ochrotrichia susanae</i>
tick	<i>Ixodidae</i> or <i>Argasidae</i> spp.
<b>Mollusks</b>	
Cooper's Rocky Mountainsnail	<i>Oreohelix strigosa cooperi</i>
pygmy mountainsnail	<i>Oreohelix pygmaea</i>
Rocky Mountain capshell	<i>Acroloxus coloradensis</i>
<b>Plants</b>	
Absaroka Range beardtongue	<i>Penstemon absarokensis</i>
alfalfa	<i>Medicago sativa</i>
American cranberrybush	<i>Viburnum opulus</i> var. <i>americanum</i>
antelope bitterbrush	<i>Purshia tridentata</i>
Arizona willow	<i>Salix arizonica</i>
aspen	<i>Populus</i> spp.
aspen (quaking)	<i>Populus tremuloides</i>
autumn willow	<i>Salix serissima</i>
Aztec milkvetch	<i>Astragalus proximus</i>
balsam poplar	<i>Populus balsamifera</i>
Baltic sphagnum	<i>Sphagnum balticum</i>
Barratt's willow	<i>Salix barrattiana</i>
Barr's milkvetch	<i>Astragalus barrii</i>
Basin sagebrush	<i>Artemisia tridentata</i> ssp. <i>tridentata</i>
Bill's neoparrya	<i>Neoparrya lithophila</i>
black henbane	<i>Hyoscyamus niger</i>
black sagebrush	<i>Artemisia nova</i>
Black Hills spruce	<i>Picea glauca</i> var. <i>densata</i>

Common Name	Scientific Name
bloodroot	<i>Sanguinaria canadensis</i>
blue grama	<i>Bouteloua gracilis</i>
blueberry willow	<i>Salix myrtilifolia</i>
box elder	<i>Acer negundo</i>
Brandegee's buckwheat	<i>Eriogonum brandegeei</i>
buffalobur	<i>Solanum rostratum</i>
bulbous bluegrass	<i>Poa bulbosa</i>
Canada thistle	<i>Cirsium arvense</i>
Cary's beardtongue	<i>Penstemon caryi</i>
Cathedral Bluff meadow-rue	<i>Thalictrum heliophilum</i>
Chamisso's cottongrass	<i>Eriophorum chamissonis</i>
clawless draba	<i>Draba exunguiculata</i>
club spikemoss	<i>Selaginella selaginoides</i>
Colorado tansyaster	<i>Machaeranthera coloradoensis</i>
common burdock	<i>Arctium minus</i>
common cocklebur	<i>Xanthium strumarium</i>
common St. Johnswort	<i>Hypericum perforatum</i>
common tansy	<i>Tanacetum vulgare</i>
common twinpod	<i>Physaria didymocarpa</i> var. <i>lanata</i>
cottonwood	<i>Populus</i> spp.
currant	<i>Ribes</i> spp.
cushion bladderpod	<i>Physaria pulvinata</i>
cushion Townsend daisy	<i>Townsendia condensata</i> var. <i>anomala</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Degener's beardtongue	<i>Penstemon degeneri</i>
diffuse knapweed	<i>Centaurea diffusa</i>
dropleaf buckwheat	<i>Eriogonum exilifolium</i>
dwarf mistletoe	<i>Arceuthobium</i> spp.
dwarf raspberry	<i>Rubus arcticus</i> ssp. <i>acaulis</i>
dyers woad	<i>Isatis tinctoria</i>
eastern red cedar	<i>Juniperus virginiana</i>
elliptic spikerush	<i>Eleocharis elliptica</i>
English sundew	<i>Drosera anglica</i>
field bindweed	<i>Convolvulus arvensis</i>
foxtail sedge	<i>Carex alopecoidea</i>
Fremont's bladderpod	<i>Lesquerella fremontii</i>
gooseberry	<i>Ribes</i> spp.
Gray's draba	<i>Draba grayana</i>
green ash	<i>Fraxinus pennsylvanica</i>
Greenland primrose	<i>Primula egaliksensis</i>
groundcedar	<i>Lycopodium complanatum</i>
Hall's bulrush	<i>Schoenoplectus hallii</i>
Harrington's beardtongue	<i>Penstemon harringtonii</i>
hoary cress (whitetop)	<i>Cardaria draba</i> and <i>Cardaria pubescens</i>
houndstongue	<i>Cynoglossum officinale</i>
ice cold buttercup	<i>Ranunculus karelinii</i>
Indian ricegrass	<i>Achnatherum hymenoides</i>
Iowa moonwort	<i>Botrychium campestre</i>
Kotzebue's grass of Parnassus	<i>Parnassia kotzebuei</i>
Laramie columbine	<i>Aquilegia laramiensis</i>
largeflower goldenweed	<i>Pyrrocoma carthamoides</i> var. <i>subsquarrosa</i>
largeflower triteleia	<i>Triteleia grandiflora</i>
leafy spurge	<i>Euphorbia esula</i>
leafy spurge	<i>Euphorbia esula</i>

Common Name	Scientific Name
lesser bladderwort	<i>Utricularia minor</i>
lesser panicled sedge	<i>Carex diandra</i>
lesser roundleaved orchid	<i>Platanthera orbiculata</i>
limber pine	<i>Pinus flexilis</i>
livid sedge	<i>Carex livida</i>
Lone Mesa snakeweed	<i>Gutierrezia elegans</i>
many-stemmed goldenweed	<i>Pyrrocoma integrifolia</i>
Missouri milkvetch	<i>Astragalus missouriensis</i> var. <i>humistratus</i>
mountain big sagebrush	<i>Artemisia tridentata</i> subsp. <i>vaseyana</i>
mountain lady's slipper	<i>Cypripedium montanum</i>
mountain tansymustard	<i>Descurainia torulosa</i>
musk thistle	<i>Carduus nutans</i>
narrowleaf grapefern	<i>Botrychium lineare</i>
needle-and-thread	<i>Stipa comata</i>
ox-eye daisy	<i>Chrysanthemum leucanthemum</i>
Pagosa Springs bladderpod	<i>Lesquerella pruinosa</i>
park milkvetch	<i>Astragalus leptaleus</i>
peculiar moonwort	<i>Botrychium paradoxum</i>
perennial pepperweed (giant whitetop)	<i>Lepidium latifolium</i>
perennial sowthistle	<i>Sonchus arvensis</i>
plains cottonwood	<i>Populus deltoides</i>
plains rough fescue	<i>Festuca hallii</i>
plumeless thistle	<i>Carduus acanthoides</i>
ponderosa pine	<i>Pinus ponderosa</i>
Porter's false needlegrass	<i>Ptilagrostis porteri</i>
prairie dodder	<i>Cuscuta plattensis</i>
prairie Junegrass	<i>Koeleria macrantha</i>
purple loosestrife	<i>Lythrum salicaria</i>
quackgrass	<i>Agropyron repens</i>
Ripley's milkvetch	<i>Astragalus ripleyi</i>
rock cinquefoil	<i>Potentilla rupicola</i>
Rocky Mountain alpine parsley	<i>Oreoxis humilis</i>
Rocky Mountain juniper	<i>Juniperus scopulorum</i>
Rocky Mountain monkeyflower	<i>Mimulus gemmiparus</i>
roundleaf orchid	<i>Amerorchis rotundifolia</i>
roundleaf sundew	<i>Drosera rotundifolia</i>
Russian knapweed	<i>Centaurea repens</i>
Russian olive	<i>Elaeagnus angustifolia</i>
Rydberg's golden columbine	<i>Aquilegia chrysantha</i> var. <i>rydbergii</i>
sagebrush	<i>Artemisia</i> spp.
sageleaf willow	<i>Salix candida</i>
saltcedar	<i>Tamarix</i> spp.
Sandberg's bluegrass	<i>Poa secunda</i>
sandhill goosefoot	<i>Chenopodium cycloides</i>
scarlet gilia	<i>Ipomopsis aggregata</i> ssp. <i>weberi</i>
Scotch thistle	<i>Onopordum acanthium</i>
Selkirk's violet	<i>Viola selkirkii</i>
shadscale	<i>Atriplex confertifolia</i>
Shoshone carrot	<i>Shoshonea pulvinata</i>
Siberian sea thrift	<i>Armeria maritima</i> ssp. <i>sibirica</i>
silver sagebrush	<i>Artemisia cana</i>
simple bog sedge	<i>Kobresia simpliciuscula</i>
skeletonleaf bursage	<i>Franseria discolor</i>
slender cottongrass	<i>Eriophorum gracile</i>

<b>Common Name</b>	<b>Scientific Name</b>
Smith's draba	<i>Draba smithii</i>
smooth northern-rockcress	<i>Braya glabella</i>
sphagnum	<i>Sphagnum angustifolium</i>
spiny hop-sage	<i>Grayia spinosa</i>
spotted knapweed	<i>Cynoglossum officinale</i>
stonecrop gilia	<i>Aliciella sedifolia</i>
stream orchid	<i>Epipactis gigantean</i>
tranquil goldenweed	<i>Pyrocoma clementis</i> var. <i>villosa</i>
trianglelobe moonwort	<i>Botrychium ascendens</i>
Ute ladies' -tresses orchid	<i>Spiranthes diluvialis</i>
violet milkvetch	<i>Astragalus iodopetalus</i>
Visher's buckwheat	<i>Eriogonum visheri</i>
Weber's draba	<i>Draba weberi</i>
west silver bladderpod	<i>Physaria scrotiformis</i>
western wheatgrass	<i>Pascopyrum smithii</i>
wheel milkweed	<i>Asclepias uncialis</i>
white adder's-mouth orchid	<i>Malaxis brachypoda</i>
white pine	<i>Pinus strobus</i>
whitebark pine	<i>Pinus albicaulis</i>
whitebristle cottongrass	<i>Eriophorum altaicum</i> var. <i>neogaeum</i>
winding mariposa lily	<i>Calochortus flexuosus</i>
winter-fat	<i>Krascheninnikovia lanata</i>
Wyoming big sagebrush	<i>Artemisia tridentata</i> subsp. <i>wyomingensis</i>
yellow lady's slipper	<i>Cypripedium parviflorum</i>
yellow toadflax	<i>Linaria vulgaris</i>
yellow widelip orchid	<i>Liparis loeselii</i>

**Bureau of Land Management Buffalo Field Office sensitive species list**

<b>Common Name</b>	<b>Scientific Name</b>
black-tailed prairie dog	<i>Cynomys ludovicianus</i>
Baird's sparrow	<i>Ammodramus bairdii</i>
bald eagle	<i>Haliaeetus leucocephalus</i>
Brewer's sparrow	<i>Spizella breweri</i>
burrowing owl	<i>Athene cunicularia</i>
Columbia spotted frog	<i>Rana luteiventris</i>
ferruginous hawk	<i>Buteo regalis</i>
fringed myotis	<i>Myotis thysanodes</i>
greater sage-grouse	<i>Centrocercus urophasianus</i>
loggerhead shrike	<i>Lanius ludovicianus</i>
long-billed curlew	<i>Numenius americanus</i>
long-eared myotis	<i>Myotis evotis</i>
mountain plover	<i>Charadrius montanus</i>
northern goshawk	<i>Accipiter gentilis</i>
northern leopard frog	<i>Rana pipiens</i>
peregrine falcon	<i>Falco peregrinus</i>
sage sparrow	<i>Amphispiza belli</i>
sage thrasher	<i>Oreoscoptes montanus</i>
spotted bat	<i>Euderma maculatum</i>
swift fox	<i>Vulpes velox</i>
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>
trumpeter swan	<i>Cygnus buccinator</i>

**Bureau of Land Management Buffalo Field Office sensitive species list**

Common Name	Scientific Name
white-faced ibis	<i>Plegadis chichi</i>
yellow-billed cuckoo	<i>Coccyzus americanus</i>
Yellowstone cutthroat trout	<i>Oncorhynchus clarkia bouvieri</i>
<b>No. Species</b>	<b>25</b>

Source: Bureau of Land Management (BLM). 2014e. Sensitive Species List. BLM Buffalo Field Office. U.S. Department of the Interior BLM Wyoming. March 26, 2014. Last updated April 2, 2014.

**U.S. Forest Service Region 2 Regional Forester-designated sensitive species.**

Common Name	Scientific Name	Occurrence in Campbell County*
<b>Mammals</b>		
gray wolf	<i>Canis lupus</i>	historic
American hog-nosed skunk	<i>Conepatus leuconotus</i>	
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	
Gunnison's prairie dog	<i>Cynomys gunnisoni</i>	
white-tailed prairie dog	<i>Cynomys leucurus</i>	x
black-tailed prairie dog	<i>Cynomys ludovicianus</i>	x
spotted bat	<i>Euderma maculatum</i>	
hoary bat	<i>Lasiurus cinereus</i>	
river otter	<i>Lontra canadensis</i>	
American marten	<i>Martes americana</i>	
water vole	<i>Microtus richardsoni</i>	
fringed myotis	<i>Myotis thysanodes</i>	x
Rocky Mountain bighorn sheep	<i>Ovis canadensis canadensis</i>	
desert bighorn sheep	<i>Ovis canadensis nelsoni</i>	
pygmy shrew	<i>Sorex hoyi</i>	
Wyoming pocket gopher	<i>Thomomys clusius</i>	
kit fox	<i>Vulpes macrotis</i>	
swift fox	<i>Vulpes velox</i>	
New Mexico meadow jumping mouse	<i>Zapus hudsonius luteus</i>	
<b>Birds</b>		
American bittern	<i>Botaurus lentiginosus</i>	x
American peregrine falcon	<i>Falco peregrinus anatum</i>	
bald eagle	<i>Haliaeetus leucocephalus</i>	x
black swift	<i>Cypseloides niger</i>	
black tern	<i>Chlidonias niger</i>	x
black-backed woodpecker	<i>Picoides arcticus</i>	x
boreal owl	<i>Aegolius funereus</i>	
Brewer's sparrow	<i>Spizella breweri</i>	x
burrowing owl	<i>Athene cunicularia</i>	x
Cassin's sparrow	<i>Aimophila cassinii</i>	
chestnut-collared longspur	<i>Calcarius ornatus</i>	x
Columbian sharp-tailed grouse	<i>Tympanuchus phasianellus columbianus</i>	
ferruginous hawk	<i>Buteo regalis</i>	x
flamulated owl	<i>Otus flammeolus</i>	
grasshopper sparrow	<i>Ammodramus savannarum</i>	x
greater prairie-chicken	<i>Tympanuchus cupido</i>	
greater sage-grouse	<i>Centrocercus urophasianus</i>	x
harlequin duck	<i>Histrionicus histrionicus</i>	
Lewis's woodpecker	<i>Melanerpes lewis</i>	x
loggerhead shrike	<i>Lanius ludovicianus</i>	x

**U.S. Forest Service Region 2 Regional Forester-designated sensitive species.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Occurrence in Campbell County*</b>
long-billed curlew	<i>Numenius americanus</i>	x
McCown's longspur	<i>Calcarius mccownii</i>	x
mountain plover	<i>Charadrius montanus</i>	x
northern goshawk	<i>Accipiter gentilis</i>	x
northern harrier	<i>Circus cyaneus</i>	x
olive-sided flycatcher	<i>Contopus cooperi</i>	
purple martin	<i>Progne subis</i>	
sage sparrow	<i>Amphispiza belli</i>	x
short-eared owl	<i>Asio flammeus</i>	x
trumpeter swan	<i>Cygnus buccinator</i>	
white-tailed ptarmigan	<i>Lagopus leucura</i>	
yellow-billed cuckoo	<i>Coccyzus americanus</i>	x
<b>Amphibians</b>		
boreal toad	<i>Anaxyrus boreas boreas</i>	x
plains leopard frog	<i>Lithobates blairi</i>	
Columbia spotted frog pop. 4 (Bighorn Mountain spotted frog)	<i>Rana luteiventris</i>	x
northern leopard frog	<i>Lithobates pipiens</i>	x
wood frog	<i>Lithobates sylvaticus</i>	x
<b>Reptiles</b>		
desert massasauga	<i>Sistrurus catenatus edwardsii</i>	
Black Hills redbelly snake	<i>Storeria occipitomaculata pahasapae</i>	
<b>Fishes</b>		
bluehead sucker	<i>Catostomus discobolus</i>	x
Colorado River cutthroat	<i>Oncorhynchus clarkii pleuriticus</i>	x
finescale dace	<i>Phoxinus neogaeus</i>	x
flannelmouth sucker	<i>Catostomus latipinnis</i>	x
flathead chub	<i>Platygobio gracilis</i>	x
hornyhead chub	<i>Nocomis biguttatus</i>	x
lake chub	<i>Couesius plumbeus</i>	
mountain sucker	<i>Catostomus platyrhynchus</i>	
northern redbelly dace	<i>Phoxinus eos</i>	
pearl dace	<i>Margariscus margarita</i>	x
plains minnow	<i>Hybognathus placitus</i>	x
plains topminnow	<i>Fundulus sciadicus</i>	x
Rio Grande chub	<i>Gila pandora</i>	
Rio Grande cutthroat	<i>Oncorhynchus clarkii virginalis</i>	
Rio Grande sucker	<i>Catostomus plebeius</i>	
roundtail chub	<i>Gila robusta</i>	x
southern redbelly dace	<i>Phoxinus erythrogaster</i>	
sturgeon chub	<i>Macrhybopsis gelida</i>	x
Yellowstone cutthroat	<i>Oncorhynchus clarkii bouvieri</i>	x
<b>Insects</b>		
Arapahoe snowfly	<i>Capnia arapahoe</i>	
Ottoo skipper	<i>Hesperia ottoe</i>	
Susan's purse-making caddisfly	<i>Ochrotrichia susanae</i>	
Hudsonian emerald	<i>Somatochlora hudsonica</i>	
regal fritillary	<i>Speyeria idalia</i>	
Nokomis fritillary or Great Basin silverspot	<i>Speyeria nokomis nokomis</i>	



**U.S. Forest Service Region 2 Regional Forester-designated sensitive species.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Occurrence in Campbell County*</b>
<b>Mollusks</b>		
Rocky Mountain capshell	<i>Acroloxus coloradensis</i>	
pygmy mountainsnail	<i>Oreohelix pygmaea</i>	x
Cooper's Rocky Mountainsnail	<i>Oreohelix strigosa cooperi</i>	x
<b>Non-Vascular Plants</b>		
sphagnum	<i>Sphagnum angustifolium</i>	
Baltic sphagnum	<i>Sphagnum balticum</i>	
<b>Ferns &amp; Allies</b>		
trianglelobe moonwort	<i>Botrychium ascendens</i>	
Iowa moonwort	<i>Botrychium campestre</i>	
narrowleaf grapefern	<i>Botrychium lineare</i>	
peculiar moonwort	<i>Botrychium paradoxum</i>	
groundcedar	<i>Lycopodium complanatum</i>	
club spikemoss	<i>Selaginella selaginoides</i>	
<b>Gymnosperms</b>		
whitebark pine	<i>Pinus albicaulis</i>	
<b>Angiosperms - Monocots</b>		
roundleaf orchid	<i>Amerorchis rotundifolia</i>	
winding mariposa lily	<i>Calochortus flexuosus</i>	
foxtail sedge	<i>Carex alopecoidea</i>	
lesser panicked sedge	<i>Carex diandra</i>	
livid sedge	<i>Carex livida</i>	
mountain lady's slipper	<i>Cypripedium montanum</i>	
yellow lady's slipper	<i>Cypripedium parviflorum</i>	
elliptic spikerush	<i>Eleocharis elliptica</i>	
stream orchid	<i>Epipactis gigantea</i>	
whitebristle cottongrass	<i>Eriophorum altaicum</i> var. <i>neogaeum</i>	
Chamisso's cottongrass	<i>Eriophorum chamissonis</i>	
slender cottongrass	<i>Eriophorum gracile</i>	
plains rough fescue	<i>Festuca hallii</i>	
simple bog sedge	<i>Kobresia simpliciuscula</i>	
yellow widelip orchid	<i>Liparis loeselii</i>	
white adder's-mouth orchid	<i>Malaxis brachypoda</i>	
lesser roundleaved orchid	<i>Platanthera orbiculata</i>	
Porter's false needlegrass	<i>Ptilagrostis porteri</i>	
Hall's bulrush	<i>Schoenoplectus hallii</i>	
largeflower triteleia	<i>Triteleia grandiflora</i>	
<b>Angiosperms - Dicots</b>		
stonecrop gilia	<i>Aliciella sedifolia</i>	
Rydberg's golden columbine	<i>Aquilegia chrysantha</i> var. <i>rydbergii</i>	
Laramie columbine	<i>Aquilegia laramiensis</i>	
Siberian sea thrift	<i>Armeria maritima</i> ssp. <i>sibirica</i>	
wheel milkweed	<i>Asclepias uncialis</i>	
Barr's milkvetch	<i>Astragalus barrii</i>	
violet milkvetch	<i>Astragalus iodopetalus</i>	
park milkvetch	<i>Astragalus leptaleus</i>	
Missouri milkvetch	<i>Astragalus missouriensis</i> var. <i>humistratus</i>	
Aztec milkvetch	<i>Astragalus proximus</i>	
Ripley's milkvetch	<i>Astragalus ripleyi</i>	
smooth northern-rockcress	<i>Braya glabella</i>	
sandhill goosefoot	<i>Chenopodium cycloides</i>	

**U.S. Forest Service Region 2 Regional Forester-designated sensitive species.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Occurrence in Campbell County*</b>
prairie dodder	<i>Cuscuta plattensis</i>	
mountain tansymustard	<i>Descurainia torulosa</i>	
clawless draba	<i>Draba exunguiculata</i>	
Gray's draba	<i>Draba grayana</i>	
Smith's draba	<i>Draba smithii</i>	
Weber's draba	<i>Draba weberi</i>	
English sundew	<i>Drosera anglica</i>	
roundleaf sundew	<i>Drosera rotundifolia</i>	
Brandegge's buckwheat	<i>Eriogonum brandegeei</i>	
dropleaf buckwheat	<i>Eriogonum exilifolium</i>	
Visher's buckwheat	<i>Eriogonum visherii</i>	
Lone Mesa snakeweed	<i>Gutierrezia elegans</i>	
scarlet gilia	<i>Ipomopsis aggregata</i> ssp. <i>weberi</i>	
Fremont's bladderpod	<i>Lesquerella fremontii</i>	
Pagosa Springs bladderpod	<i>Lesquerella pruinosa</i>	
Colorado tansyaster	<i>Machaeranthera coloradoensis</i>	
Rocky Mountain monkeyflower	<i>Mimulus gemmiparus</i>	
Bill's neoparrya	<i>Neoparrya lithophila</i>	
Rocky Mountain alpineparsley	<i>Oreoxis humilis</i>	
Kotzebue's grass of Parnassus	<i>Parnassia kotzebuei</i>	
Absaroka Range beardtongue	<i>Penstemon absarokensis</i>	
Cary's beardtongue	<i>Penstemon caryi</i>	
Degener's beardtongue	<i>Penstemon degeneri</i>	
Harrington's beardtongue	<i>Penstemon harringtonii</i>	
common twinpod	<i>Physaria didymocarpa</i> var. <i>lanata</i>	
cushion bladderpod	<i>Physaria pulvinata</i>	
west silver bladderpod	<i>Physaria scrotiformis</i>	
rock cinquefoil	<i>Potentilla rupincola</i>	
Greenland primrose	<i>Primula egaliksensis</i>	
largeflower goldenweed	<i>Pyrrocoma carthamoides</i> var. <i>subsquarrosa</i>	
tranquil goldenweed	<i>Pyrrocoma clementis</i> var. <i>villosa</i>	
many-stemmed goldenweed	<i>Pyrrocoma integrifolia</i>	
ice cold buttercup	<i>Ranunculus karelinii</i>	
dwarf raspberry	<i>Rubus arcticus</i> ssp. <i>acaulis</i>	
Arizona willow	<i>Salix arizonica</i>	
Barratt's willow	<i>Salix barrattiana</i>	
sageleaf willow	<i>Salix candida</i>	
blueberry willow	<i>Salix myrtilifolia</i>	
autumn willow	<i>Salix serissima</i>	
bloodroot	<i>Sanguinaria canadensis</i>	
Shoshone carrot	<i>Shoshonea pulvinata</i>	
Cathedral Bluff meadow-rue	<i>Thalictrum heliophilum</i>	
cushion Townsend daisy	<i>Townsendia condensata</i> var. <i>anomala</i>	

**U.S. Forest Service Region 2 Regional Forester-designated sensitive species.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Occurrence in Campbell County*</b>
lesser bladderwort	<i>Utricularia minor</i>	
American cranberrybush	<i>Viburnum opulus</i> var. <i>americanum</i>	
Selkirk's violet	<i>Viola selkirkii</i>	

\* Occurrence based on Orabona et al. (2021) for mammals, birds, amphibians, reptiles, fishes, and mollusks; vascular plants occurrence based on Heidel (2012).

Heidel, B., W. Fertig, F. Blomquist, and T. Abbot. 2008. Wyoming's Threatened and Endangered Species: Ute Ladies'-Tresses Orchid. Wyoming Bureau of Land Management (BLM) in collaboration with Wyoming Natural Diversity Database (WYNDD).

Orabona, A., C. Rudd, M. Grenier, Z. Walker, S. Patla, and B. Oakleaf. 2021. Atlas of Birds, Mammals, Amphibians, and Reptiles in Wyoming. Wyoming Game and Fish Department (WGFD) Nongame Program, Lander, Wyoming.

Source: U.S. Forest Service (USFS). 2021. Sensitive Species List. USFS Rocky Mountain Region (Region 2), Lakewood, Colorado. Available online: <https://www.fs.usda.gov/detail/r2/landmanagement/?cid=stelprdb5390116>

**Wyoming state-designated noxious weeds (Wyoming Statute 11-5-102 (a)(xi)).**

<b>Common Name</b>	<b>Scientific Name</b>
field bindweed	<i>Convolvulus arvensis</i> L.
Canada thistle	<i>Cirsium arvense</i> L.
leafy spurge	<i>Euphorbia esula</i> L.
perennial sowthistle	<i>Sonchus arvensis</i> L.
quackgrass	<i>Agropyron repens</i> (L.) Beauv.
hoary cress (whiteweed)	<i>Cardaria draba</i> and <i>Cardaria pubescens</i> (L.) Descv.
perennial pepperweed (giant whiteweed)	<i>Lepidium latifolium</i> L.
ox-eye daisy	<i>Chrysanthemum leucanthemum</i> L.
skeletonleaf bursage	<i>Franseria discolor</i> Nutt.
Russian knapweed	<i>Centaurea repens</i> L.
yellow toadflax	<i>Linaria vulgaris</i> L.
Dalmatian toadflax	<i>Linaria dalmatica</i> (L.) Mill.
Scotch thistle	<i>Onopordum acanthium</i> L.
musk thistle	<i>Carduus nutans</i> L.
common burdock	<i>Arctium minus</i> (Hill) Bernh.
plumeless thistle	<i>Carduus acanthoides</i> L.
dyers woad	<i>Isatis tinctoria</i> L.
houndstongue	<i>Cynoglossum officinale</i> L.
spotted knapweed	<i>Cynoglossum officinale</i> L.
diffuse knapweed	<i>Centaurea diffusa</i> Lam.
purple loosestrife	<i>Lythrum salicaria</i> L.
saltcedar	<i>Tamarix</i> spp.
common St. Johnswort	<i>Hypericum perforatum</i>
common tansy	<i>Tanacetum vulgare</i>
Russian olive	<i>Elaeagnus angustifolia</i>
black henbane	<i>Hyoscyamus niger</i> L.
common mullein	<i>Verbascum thapsus</i> L.
yellow starthistle	<i>Centaurea solstitialis</i> L.
ventenata	<i>Ventenata dubia</i> (Leers) coss.
Medusahead rye	<i>Taeniatherum caput-medusae</i> (L.) nevski
<b>Total Species</b>	<b>30 species</b>

Source: Wyoming Statute (W.S.) 11-5-102. Title 11 - Agriculture, Livestock and Other Animals; Chapter 5 - Weed and Pest Control; Section 102 - Definitions. Available online:



**Wyoming state-designated noxious weeds (Wyoming Statute 11-5-102 (a)(xi)).**

<b>Common Name</b>	<b>Scientific Name</b>
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<https://wyoleg.gov/NXT/gateway.dll?f=templates&fn=default.htm>

**Wyoming state-designated pests (Wyoming Statute 11-5-102 (a)(xii))**

<b>Common Name</b>	<b>Scientific Name</b>
grasshopper	<i>Caelifera</i> spp.
Mormon cricket	<i>Anabrus simplex</i>
prairie dog	<i>Cynomys</i> spp.
ground squirrel	<i>Spermophilus</i> spp.
mountain pine beetle	<i>Dendroctonus ponderosae</i>
beet leafhopper	<i>Circulifer tenellus</i>
<b>Total Species</b>	<b>6 species</b>

Source: Wyoming Statute (W.S.) 11-5-102. Title 11 - Agriculture, Livestock and Other Animals; Chapter 5 - Weed and Pest Control; Section 102 - Definitions. Available online: <https://wyoleg.gov/NXT/gateway.dll?f=templates&fn=default.htm>

**Campbell County-identified noxious weeds and pests (Wyoming Statute 11-5-102 (a)(xii)).**

<b>Common Name</b>	<b>Scientific Name</b>
buffalobur	<i>Solanum rostratum</i> Dun.
common cocklebur	<i>Xanthium strumarium</i>
jointed goatgrass	<i>Aegilops cylindrical</i> Host.
mosquito	<i>Culicidae</i> spp.
poison hemlock	<i>Conium maculatum</i>
<b>Total Species</b>	<b>5 species</b>

Source: Wyoming Statute (W.S.) 11-5-102. Title 11 - Agriculture, Livestock and Other Animals; Chapter 5 - Weed and Pest Control; Section 102 - Definitions. Available online: <https://wyoleg.gov/NXT/gateway.dll?f=templates&fn=default.htm>

## Appendix A. Resource Specific Data

## Appendix A Table of Contents

<b>Air Quality</b> .....	<b>A-3</b>
Federal and Wyoming Air Quality Standards.....	A-3
Air Quality Data.....	A-3
Ozone.....	A-3
Carbon Monoxide.....	A-6
Nitrogen Dioxide.....	A-6
Sulfur Dioxide.....	A-8
Particulate Matter <sub>2.5</sub> .....	A-12
Particulate Matter <sub>10</sub> .....	A-16
<b>Vegetation</b> .....	<b>A-23</b>
<b>Weeds, Pests, and Invasive Species</b> .....	<b>A-24</b>
<b>Threatened, Endangered, and Special Status Species</b> .....	<b>A-24</b>
<b>Timber</b> .....	<b>A-25</b>
Streamside Management Zones.....	A-25
Wyoming Forestry and Silviculture Best Management Practice Field Audits.....	A-25
Insect and Disease Management.....	A-26
Fire Management.....	A-29
Timber Management for Wildlife Habitat.....	A-29
Tree Species for Living Snow Fences and Shelterbelts.....	A-30
Urban Forestry.....	A-30
<b>Livestock and Grazing</b> .....	<b>A-31</b>

## Air Quality

### Federal and Wyoming Air Quality Standards

National Ambient Air Quality Standards (NAAQS) and Wyoming Ambient Air Quality Standards (WAAQS) are presented in Table A-1.

**Table A-1. Federal and state ambient air-quality standards.**

Pollutant	Averaging Time	Wyoming Standard	National Standard	Exceedance criteria
Ozone	8-hour	70 ppb	70 ppb	Annual 4 <sup>th</sup> highest daily maximum 8-hour concentration, averaged over 3 years
Carbon monoxide	1-hour	35 ppm	35 ppm	No more than 1 exceedance per year
Carbon monoxide	8-hour	9 ppm	9 ppm	No more than 1 exceedance per year
Nitrogen dioxide	1-hour	100 ppb	100 ppb	98 <sup>th</sup> percentile of daily maximum 1-hour concentration, averaged over 3 years
Nitrogen dioxide	Annual	53 ppb	53 ppb	Annual mean
Sulfur dioxide	1-hour	75 ppb	75 ppb	99 <sup>th</sup> percentile of daily maximum 1-hour concentration, averaged over 3 years
Sulfur dioxide	3-hour	0.5 ppm	0.5 ppm	No more than 1 exceedance per year
PM <sub>2.5</sub>	24-hour	35 µg/m <sup>3</sup>	35 µg/m <sup>3</sup>	98 <sup>th</sup> percentile, averaged over 3 years
PM <sub>2.5</sub>	Annual	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>	Annual mean, averaged over 3 years
PM <sub>10</sub>	24-hour	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	No more than 1 exceedance per year on average over 3 years
PM <sub>10</sub>	Annual	50 µg/m <sup>3</sup>	--	Annual mean, averaged over 3 years

Sources: U.S. Environmental Protection Agency 2021, Wyoming Department of Environmental Quality 2021

ppb = parts per billion; ppm = parts per million; PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

## Air Quality Data

### Ozone

Ozone (O<sub>3</sub>) data was available from three sites in Campbell County and 13 sites in counties adjacent to Campbell County. An area is considered in attainment of the O<sub>3</sub> NAAQS if the fourth highest daily maximum 8-hour concentration averaged over three consecutive years is 70 parts per billion (ppb) or less at all monitoring sites. The O<sub>3</sub> NAAQS were revised from 75 ppb to 70 ppb in 2015.

Table A-2 shows that the applicable fourth highest concentrations have been less than 70 ppb at all monitoring sites in Campbell County. The highest fourth highest daily minimum 8-hour O<sub>3</sub> concentration at sites in counties adjacent to Campbell County is 77 ppb in 2012 at the Devils Tower monitoring site in Crook County (Table A-3). However, the 2010 – 2012 3-year average value at this site is 64 ppb, below the ozone NAAQS. Similarly, the fourth highest daily maximum 8-hour concentration at the Converse County Long-Term site was 71 ppb in 2020, but the 3-year average is currently below the NAAQS. This site must show fourth highest concentrations below 70 ppb in 2021 and 2022 to remain under the NAAQS.



**Table A-2. Fourth-highest observed daily maximum 8-hour ozone (ppb) at sites in Campbell County.**

<b>Year</b>	<b>South Campbell County</b>	<b>Gillette</b>	<b>Thunder Basin</b>
2011	62		61
2012	69	65	71
2013	61		61
2014	59		58
2015	62		59
2016	60		57
2017	68		64
2018	55		64
2019			55
2020			62

ppb = parts per billion

**Table A-3. Fourth highest daily maximum 8-hour ozone concentrations (ppb) at monitoring sites in counties adjacent to Campbell County.**

County	Converse			Crook	Johnson	Natrona			Powder River	Sheridan		Weston	
Year	Tallgrass Energy Partners	Long-Term	Mobile #2	Devil's Tower	Johnson County	Casper Gaseous	Sinclair, Casper	Casper Mobile	Broadus	Sheridan WARMS Station	Sheridan Mobile	Newcastle WARMS Station	Newcastle Mobile
2011				57			61		54				
2012				77			63		56				
2013	57		67			65	57		56	58		67	
2014	58		59			61	58		53	57		59	
2015	60	60	60			60	58		57	60		61	59
2016	60	59				61	56		55	59		60	60
2017		66				63	64	63	61	67		62	
2018		64			60	65	55		66	69	57	63	
2019		59			60	60	58		64	60		59	
2020		71			64	64	66		60	59		66	

ppb = parts per billion



## Carbon Monoxide

The air quality standards for carbon monoxide (CO) are 35 part per million (ppm) for 1-hour CO and nine ppm for 8-hour CO. These thresholds should not be exceeded more than once per year. Only one CO monitoring site is in the area, and the monitored values are well below the respective standards, as shown in Tables A-4 and A-5.

**Table A-4. Highest 1-hour carbon monoxide concentrations (ppm) at the Converse County long-term site.**

Year	Highest (ppm)	Second Highest (ppm)
2018	0.38	0.36
2019	0.19	0.18
2020	0.46	0.45

ppm = parts per million

**Table A-5. Highest 8-hour carbon monoxide concentrations (ppm) at the Converse County long-term site.**

Year	Highest (ppm)	Second Highest (ppm)
2018	0.3	0.3
2019	0.2	0.2
2020	0.4	0.4

ppm = parts per million

## Nitrogen Dioxide

Nitrogen dioxide (NO<sub>2</sub>) has both 1-hour and annual standards. The 1-hour NAAQS and WAAQS require that the 98<sup>th</sup> percentile of the daily maximum 1-hour concentrations averaged over three years not exceed 100 ppb. The annual mean NO<sub>2</sub> concentration cannot exceed 53 ppb.

Table A-6 lists the 98<sup>th</sup> percentile of the daily maximum 1-hour concentrations at the monitoring sites in Campbell County. The concentrations from the past 10 years do not threaten the 1-hour standard. The applicable concentrations at monitoring sites in counties adjacent to Campbell County also do not threaten the 100 ppb 1-hour NO<sub>2</sub> standard, as presented in Table A-7.

**Table A-6. 98<sup>th</sup> percentile of the daily maximum 1-hour nitrogen dioxide concentrations (ppb) at monitoring sites in Campbell County.**

Year	Belle Ayr BA-4	South Campbell County	Gillette Mobile	Hilight-Reno Junction Gas Plant	Thunder Basin
2011	36	33.4	39		11.3
2012	34.3	31.9	32.2	46	11.2
2013	35.1	31.6		52	8.5
2014	34.8	32.4		55	9.8
2015	31.7	31.5		41	7.9
2016	27.5	28.8			6.4
2017	28.3	30.5			8.2
2018	30.4	32			7.3
2019	30.9				6.7
2020	26.3				5.5

ppb = parts per billion

**Table A-7. 98<sup>th</sup> percentile of the daily maximum 1-hour nitrogen dioxide concentrations (ppb) at monitoring sites in counties adjacent to Campbell County.**

County	Converse				Johnson	Natrona			Powder River	Sheridan	Weston
Year	Tallgrass Energy Partners	Mobile #2	Long-Term	Antelope Site 7	Johnson County	Casper Gaseous	Sinclair, Casper	Casper Mobile	Broadus	Sheridan Mobile	Newcastle Mobile
2011								42.2	15		
2012								27.3	10		
2013	35.8	22.8				34	35.9		9		
2014	36.3	23.6				38	33.6		11		
2015	33.8	23.6	7.7	34.9		42.3	33		9		28.1
2016	34.6		8.2	29.9		39.1	31.5		10		23.2
2017			9.1	31.5		38	32.1	44.2	10	34.6	
2018			9.4	31.3	7.1	37.4	35.6		9	48.5	
2019			13	28.8	6.4	33	31.7		10		
2020			18	23.4	5	35.8	25.4		9		

ppb = parts per billion

Table A-8 lists the annual mean NO<sub>2</sub> concentrations at monitoring sites in Campbell County, and Table A-9 presents the annual concentrations in adjacent counties. All annual mean NO<sub>2</sub> concentrations were well below the 53 ppb standard at all sites over the past 10 years.

**Table A-8. Annual mean nitrogen dioxide concentrations (ppb) at sites in Campbell County.**

Year	Belle Ayr BA-4	South Campbell County	Gillette Mobile	Hilight-Reno Junction Gas Plant	Thunder Basin
2011	5.65	2.70	6.12		1.99
2012	7.61	3.01	4.83	8.46	1.84
2013	6.94	2.86		9.18	1.47
2014	6.87	2.76		10.04	1.41
2015	6.01	2.73		7.12	1.28
2016	4.24	1.52			1.11
2017	4.51	2.34			1.34
2018	4.58	2.71			1.46
2019	4.13				1.24
2020	2.74				1.05

ppb = parts per billion

**Table A-9. Annual mean nitrogen dioxide concentrations (ppb) at monitoring sites in counties adjacent to Campbell County.**

County	Converse				Johnson	Natrona			Powder River	Sheridan	Weston
Year	Tallgrass Energy Partners	Mobile #2	Long-Term	Antelope Site 7	Johnson County	Casper Gaseous	Sinclair, Casper Mobile	Casper Mobile	Broadus	Sheridan Mobile	Newcastle Mobile
2011							6.99		5.52		
2012							5.37		1.01		
2013	4.45	2.99				2.70	5.66		0.92		
2014	4.19	3.01				4.04	5.42		0.95		
2015	3.72	3.41	0.47	3.11		5.16	5.36		0.71		4.90
2016	2.49		0.47	2.42		4.14	4.86		1.07		2.62
2017			0.42	3.03		4.24	4.36	5.25	0.84	6.23	
2018			1.00	3.19	1.00	4.48	5.06		0.93	6.29	
2019			1.38	2.85	0.77	4.39	4.45		0.82		
2020			1.67	2.04	0.70	3.77	3.97		0.64		

ppb = parts per billion

### Sulfur Dioxide

The 1-hour sulfur dioxide (SO<sub>2</sub>) standard requires that the 99<sup>th</sup> percentile of the daily maximum 1-hour concentrations averaged over 3 years not exceed 75 ppb. The only SO<sub>2</sub> monitor in Campbell County in the past 10 years was at Black Hills Power Site 4, with the last data reported in 2017. Table A-10 lists the 99<sup>th</sup> percentile of the daily maximum 1-hour SO<sub>2</sub> concentrations and the 3-year averages at this monitor, all of which are below the standard.

**Table A-10. 99<sup>th</sup> percentile of the daily maximum 1-hour sulfur dioxide concentrations (ppb) at Black Hills Power Site 4 in Campbell County.**

Year	99 <sup>th</sup> percentile of daily maximum 1-hour concentration (ppb)	3-year average of the 99 <sup>th</sup> percentiles (ppb)
2011	37	50
2012	39	43
2013	37	38
2014	32	36
2015	16	28
2016	13.9	21
2017	10.5	13

ppb = parts per billion

The applicable 1-hour SO<sub>2</sub> concentrations are also well below the standard at monitors in counties adjacent to Campbell County, as presented in Table A-11.

**Table A-11. 99<sup>th</sup> percentile of the daily maximum 1-hour sulfur dioxide concentrations (ppb) at monitoring sites in counties adjacent to Campbell County.**

County	Converse		Natrona				Sheridan		Weston			
Location	Dave Johnson		Sinclair, Casper		Casper Mobile		Sheridan Mobile		Wyoming Refining		Newcastle Mobile	
Year	99 <sup>th</sup> percent. of daily max. 1-hr conc. (ppb)	3-year average of the 99 <sup>th</sup> percent. (ppb)	99 <sup>th</sup> percent. of daily max. 1-hr conc. (ppb)	3-year average of the 99 <sup>th</sup> percent. (ppb)	99 <sup>th</sup> percent. of daily max. 1-hr conc. (ppb)	3-year average of the 99 <sup>th</sup> percent. (ppb)	99 <sup>th</sup> percent. of daily max. 1-hr conc. (ppb)	3-year average of the 99 <sup>th</sup> percent. (ppb)	99 <sup>th</sup> percent. of daily max. 1-hr conc. (ppb)	3-year average of the 99 <sup>th</sup> percent. (ppb)	99 <sup>th</sup> percent. of daily max. 1-hr conc. (ppb)	3-year average of the 99 <sup>th</sup> percent. (ppb)
2011			31.7						9	17		
2012			28.9						20	16		
2013			38.3	33					6	12		
2014			32.9	33					2	9		
2015			21.2	31					4	4	5.7	
2016			20.6	25					4.1	3	1.9	
2017	14.2		17.8	20	4.1		1.5		2.3	3		
2018	15.8		19.3	19			3.4		2.1	3		
2019	12.7	14	20.9	19					3.5	3		
2020	16	15	11.7	17					5.5	4		

conc. = concentration, hr = hour, max. = maximum, percent. = percentile, ppb = parts per billion.



To meet the standard, the 3-hour SO<sub>2</sub> concentrations must not exceed 0.5 ppm (500 ppb) more than once per year. Table A-12 lists the highest and second highest 3-hour SO<sub>2</sub> concentrations from the Black Hills Power Site 4 monitor in Campbell County. The highest second high 3-hour SO<sub>2</sub> concentration at this location was 40 ppb in 2011, well below the 500 ppb standard. Again, the last data reported is from 2017. The 3-hour SO<sub>2</sub> concentrations in neighboring counties are even lower, as shown in Table A-13.

**Table A-12. Highest 3-hour sulfur dioxide concentrations (ppb)  
at Black Hills Power Site 4 in Campbell County.**

<b>Year</b>	<b>Highest (ppb)</b>	<b>Second Highest (ppb)</b>
2011	41.6	40
2012	38	34.3
2013	32.6	31.3
2014	26	25
2015	15.6	12.6
2016	10.6	10.6
2017	8	7.5

ppb = parts per billion



**Table A-13. Highest 3-hour sulfur dioxide concentrations (ppb) at monitoring sites in counties adjacent to Campbell County.**

County	Converse		Natrona		Sheridan		Weston					
Location	Dave Johnson		Sinclair, Casper		Casper Mobile		Sheridan Mobile		Wyoming Refining		Newcastle Mobile	
Year	Highest (ppb)	Second Highest (ppb)	Highest (ppb)	Second Highest (ppb)	Highest (ppb)	Second Highest (ppb)	Highest (ppb)	Second Highest (ppb)	Highest (ppb)	Second Highest (ppb)	Highest (ppb)	Second Highest (ppb)
2011			22.1	21.7					9	8.3		
2012			26.9	25.4					16.3	16.3		
2013			30.8	30.4					27.6	4.6		
2014			29.1	27.9					2.6	2		
2015			19	17.9					10.6	6.3	4.2	3.8
2016			16.6	15.8					8.4	7.6	35.7	1.4
2017	13.4	10.3	24.2	16.6	3.7	3.4	1.8	1.5	2.6	2.4		
2018	13.7	13.5	20.5	16.2			3.2	3.1	2.5	1.9		
2019	12.2	10.1	33	23.5					3.4	3		
2020	12.6	11	13.7	9.3					8.3	5.1		

ppb = parts per billion



## Particulate Matter<sub>2.5</sub>

The 24-hour PM<sub>2.5</sub> standard requires that the 98<sup>th</sup> percentile of the 24-hour concentrations, averaged over three years, be 35 µg/m<sup>3</sup> or less. The PM<sub>2.5</sub> monitors in Campbell County were located near mines and at the Gillette College Tech Center. The 98<sup>th</sup> percentile of the 24-hour PM<sub>2.5</sub> concentrations from the past 10 years are listed in Table A-14. All values are below 35 µg/m<sup>3</sup>; therefore, the 3-year averages meet the 24-hour PM<sub>2.5</sub> standard. The highest 3-year average in Campbell County was 19.4 µg/m<sup>3</sup> at the Belle Ayr BA-4 monitor during 2011 – 2013. This value is 56% of the 35 µg/m<sup>3</sup> standard.

Table A-15 lists the 98<sup>th</sup> percentile of the 24-hour PM<sub>2.5</sub> concentrations during the last 10 years at the monitoring sites in counties adjacent to Campbell County. Two monitors recorded values above 35 µg/m<sup>3</sup>, the Broadus, MT monitor in 2017 and the Casper SLAMS monitor in 2020. The 3-year average at Broadus for 2016 – 2018 is 26.5 µg/m<sup>3</sup>, which is below the 35 µg/m<sup>3</sup> standard. The 3-year average at the Casper SLAMS site is currently below 35 µg/m<sup>3</sup> but could exceed the standard if high values are recorded in 2021 and 2022.

**Table A-14. 98<sup>th</sup> percentile of the 24-hour PM<sub>2.5</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in Campbell County.**

Year	Gillette Mobile	Black Thunder Mine 36-2	Belle Ayr BA-4	Buckskin Mine North
2011	9	13.9	20.4	15.5
2012	15.2*	15.8	24.4*	17.9
2013		13.6	13.5	13.7
2014		9.9	10.1	12.2
2015		17.5*	17.5*	17.2*
2016		11	13.7	9.4
2017		17.9*	18.5*	24.1*
2018		18.9	18.4	21
2019		8.8	6.9	10.5
2020			18.5	

\* Exceptional events excluded

PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

**Table A-15. 98<sup>th</sup> percentile of the 24-hour PM<sub>2.5</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in counties adjacent to Campbell County.**

County	Converse			Natrona			Powder River	Sheridan				Weston
	Mobile #2	Antelope Site 3	Antelope Site 7	Casper SLAMS	Casper Mobile	Casper Gaseous	Broadus	Sheridan Mobile	Police Station SLAMS	Highland Park Monitor	Meadow-lark SLAMS	Newcastle Mobile
2011		7.7		12.7			17.4*		23.7	14.5		
2012	9.3	23.3*		15.5*			24.3		18.9	10.3	19.3	
2013	8.2	8		12.5			14.3*		17.9		14.4	
2014	8			14.1			13.9*		20		17.5	
2015	6.6*		16.1*	30.6			13.1*		18.3*		23.1*	22.8
2016			9.6	12.6	16.7		12.7*		22.8*		17.7*	9.9
2017			17.9*	22.9*	14.3*		40.2	21.4*	24.4*		21.6*	
2018			7.9	16	16.2		26.5	22.9	26.5		16.6	
2019			6.7	9.1		5.8	12.3*		27.2		11.6	
2020			26.8	36.3		17.6	29.8		33.6		21.2	

\* Exceptional events excluded

PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

The footnotes on Tables A-14 and A-15 identify that some monitoring data were excluded because they were exceptional events. The exceptional events policy allows states to request the exclusion of data showing exceedances or violations of an ambient air quality standard directly due to an exceptional event. These events include wildfires and emissions of dust during high winds. Multiple instances of exceptional events occurred during the 2011 – 2020 period, most due to very high winds generating uncontrollable wind-blown dust. Regional wildfires resulted in many elevated monitoring values in September 2017, and data from numerous sites were excluded from comparison to the applicable standards. The high value at Broadus in 2017 may have also qualified as an exceptional event since many elevated readings occurred in September of that year during wildfire activity. It is unclear at this time if an exceptional event designation will be requested for the elevated 2020 Casper SLAMS reading.

The annual mean PM<sub>2.5</sub> standard became more stringent on December 14, 2012, when the primary annual PM<sub>2.5</sub> standard was reduced from 15 to 12 µg/m<sup>3</sup>. All Campbell County sites in the past 10 years complied with the more stringent standard, as presented in Table A-16. Monitoring sites in counties adjacent to Campbell County also have annual PM<sub>2.5</sub> values that are below the NAAQS (Table A-17).

**Table A-16. Annual mean PM<sub>2.5</sub> (µg/m<sup>3</sup>) at monitoring sites in Campbell County.**

<b>Year</b>	<b>Gillette Mobile</b>	<b>Black Thunder Mine 36-2</b>	<b>Belle Ayr BA-4</b>	<b>Buckskin Mine North</b>
2011	4.46	3.43	5.77	5.18
2012	2.90*	4.83	7.75*	5.77
2013		3.74	6.79	4.89
2014		3.93	5.19	5.37
2015		5.00*	4.70*	2.23*
2016		3.42	4.17	2.62
2017		4.94*	4.82*	5.40*
2018		4.45	2.83	4.86
2019		3.27	1.86	4.62
2020		3.01		

\* Exceptional events excluded

PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

**Table A-17. Annual mean PM<sub>2.5</sub> (µg/m<sup>3</sup>) at monitoring sites in counties adjacent to Campbell County.**

County	Converse			Natrona			Powder River	Sheridan				Weston
Year	Mobile #2	Antelope Site 3	Antelope Site 7	Casper SLAMS	Casper Mobile	Casper Gaseous	Broadus	Sheridan Mobile	Police Station SLAMS	Highland Park Monitor	Meadow-lark SLAMS	Newcastle Mobile
2011		3.07		4.55			5.51*		8.35	5.52		
2012	3.61	4.90*		5.16*			8.87		8.20	4.36	7.11	
2013	3.27	2.82		4.29			4.91*		7.13		5.03	
2014	2.31			4.75			5.04*		7.24		5.43	
2015	2.56*		4.21*	4.95			5.75*		7.76*		5.12*	6.07
2016			2.65	5.17	5.59		5.34*		6.56*		4.33*	2.98
2017			4.89*	5.18*	3.72*		9.68	6.19*	7.43*		6.75*	
2018			3.17	6.17	3.52		6.95	7.44	7.50		5.08	
2019			2.24	4.12		2.39	5.13*		5.93		4.24	
2020			4.37	5.38		3.47	7.57		6.83		4.61	

\* Exceptional events excluded

PM<sub>2.5</sub> = diameter less than or equal to 2.5 microns/fine particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

## *Particulate Matter<sub>10</sub>*

PM<sub>10</sub> monitors have been operated at 49 locations across Campbell County in the last 10 years. Most monitors are located near surface mines to ensure that particulates generated from mining activities do not exceed ambient standards. The 24-hour PM<sub>10</sub> standard of 150 µg/m<sup>3</sup> should not be exceeded more than once per year on average over three years (i.e., there should not be four or more exceedances over a 3-year period). Table A-18 lists the second highest annual 24-hour PM<sub>10</sub> concentrations for each site in Campbell County. Values with an asterisk represent the second highest 24-hour PM<sub>10</sub> concentration after one or more events were excluded due to an exceptional event.

The NARM RO-1 site reported two exceedances in 2011. The four highest 24-hour PM<sub>10</sub> concentrations in 2011 and 2012 (excluding exceptional events) are as follows:

- August 23, 2011 (217 µg/m<sup>3</sup>)
- September 22, 2011 (154 µg/m<sup>3</sup>)
- August 7, 2012 (250 µg/m<sup>3</sup>)
- August 27, 2012 (150 µg/m<sup>3</sup>)

The fourth highest concentration (150 µg/m<sup>3</sup>) over the two years was very close to putting the region out of compliance with the NAAQS and WAAQS. Because there were no values above 150 µg/m<sup>3</sup> at NARM RO-1 in either 2010 or 2013, the result is less than four exceedances over a 3-year period and the NAAQS is met.

Table A-19 lists the highest second high 24-hour PM<sub>10</sub> concentrations over the last 10 years at monitoring sites in counties adjacent to Campbell County. The Broadus, MT, monitor recorded a second high concentration of 167 µg/m<sup>3</sup> in 2017, but no other exceedances at the site occurred during a 3-year block. None of the other sites recorded concentrations above the 150 µg/m<sup>3</sup> standard.

In addition to the 24-hour PM<sub>10</sub> standard, Wyoming also enforces the 50 µg/m<sup>3</sup> annual mean PM<sub>10</sub> standard that EPA rescinded in 2006. The annual standard should not be exceeded when averaged over three consecutive years. Table A-20 lists the annual mean concentrations at Campbell County monitoring sites, after excluding exceptional events. The annual mean PM<sub>10</sub> concentration exceeded 50 µg/m<sup>3</sup> at NARM RO-1 in 2012. However, when averaged over three years, the annual means at NARM RO-1 comply with the state standard.

Table A-21 displays the annual PM<sub>10</sub> concentrations over the last 10 years at monitoring sites in counties next to Campbell County. All values are below the 50 µg/m<sup>3</sup> annual state standard.

PM<sub>10</sub> is the only pollutant that has threatened to exceed the NAAQS or WAAQS in Campbell County. However, monitoring results over the last 10 years show there were no violations of any national or state standards.

**Table A-18. Second highest 24-hour PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in Campbell County.**

Site ID	Site Name	Year									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
13	NARM NA-9						60	102	82	58	
14	Black Thunder Site 6						30	67	43	53	71
15	Black Thunder Site 15						77	107	75	69	79
17	Buckskin West										130
84	School Creek SC-1	69	99	60	61	91	64	107	75	52	67
86	School Creek SC-3	94	122*	108	108	107	110	94	67	90	84
87	School Creek SC-2	121	140*	118	112	139	112*	137	94	115	138
99	Wright	39	54	45	38	52	27	41	39	31	61
303	Coal Creek Site 3		44	53	31	46	28	55	31	23	41
456	Campbell County	40	55	36	46	99	34	101			
800	Gillette Mobile	21	76								
802	1 Site (BA-1)	31	44	26	20	40	33	46	25	22	49
808	Eagle Butte EB-3	70	96	60	60	50	102	110	66	53	88
826	Rawhide Hilltop	68	89	82	49	69*	77	93	58	42	74
841	Coal Creek Site 7	27	28	23	21	36	20	33	33	17	43
857	Black Hills Power Site 4	58	70								
869	NARM RO-1	154*	150*	128	95	95*	87*	137*	113	108	106
875	Black Thunder Mine Site 3	60	85	58	45	61	21	44	25	31	36
883	Cordero Rojo Site W	51									
884	Buckskin West	59	82	49	52	65	46	81	65	72	35
885	Cordero Rojo Site E-10	74	78	64	47	78	50	95	39	41	61
886	Caballo Mine CB-8	94	87	74	40	77	52	91	55	41	58
889	Cordero HV-3/PM-3	19									
890	Coal Creek Site 26	28	37								
891	Black Thunder BTM 36-2	82	83	64*	82	100	76*	108*	65*	74	71
892	Belle Ayr BA-4	58	49	37	36	47	38	59	28	22	44
893	Belle Ayr BA-3	31	46	33	21	48	25	97	55	32	57
894	Jacobs Ranch Site 4	35	20								
895	Rawhide North Site	68	95	62	72	77	71	141*	62	66	149
897	Dry Fork Site DF-4		40	21	23	31	20	49	24	18	38
898	Belle Ayr Ranch House Monitor			20	32	34	27	89	54	48	89
901	Clovis Point Mine Site CP-1	105	114*								
907	Black Thunder Site 12	75	120	62							
908	Caballo Mine Site CB-9	68	67	55	48	67	76	90	50	30	52
1002	Gillette SLAMS	43	45	26	24	33	29	43	30	29	63





**Table A-18. Second highest 24-hour PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in Campbell County.**

Site ID	Site Name	Year									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1003	Cordero Rojo Site W-11	50	61	47	59	48	35	70	40	32	53
1009	Cordero Rojo Site S-11	44	63	40	33	51	36	60	38	23	47
1877	Black Thunder Sites 25-3, 25-4, 25-5	32	39	34	33	62	8				
1879	Dry Fork Site DF-2	36	49	39	22	41	30	48	33	26	45
1896	Dry Fork Site DF-3	31	14								
1899	Buckskin Mine North Site	94	96*	51	48	67	37	96	52	36	64
1900	NARM NA-7	74	82	57	61	82	42				
1906	Relocated Eagle Butte Mine Site 2	45	47	34	39	46	32	72	53	27	48
1915	New Site Known as BTM 31-1	59	63	66	49	51	10				
1917	Black Thunder Mine JR5	80	121	79	71	117	36				
2900	Eagle Butte EB-5	26	44	35	46	63	42	80	59	35	69
2901	Eagle Butte-Rawhide School Monitor			56	45	66	65	106	87	64	145
5555	Wyodak Site 5		66	95	49	69*	58	84	56	81	65
6666	Wyodak Site 6		80	130	71	94*	117	100	69*	52	70

\*Exceptional events excluded (asterisks represent the second highest 24-hour PM<sub>10</sub> concentration after one or more events were excluded due to an exceptional event)  
 PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter



**Table A-19. Second highest 24-hour PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in counties adjacent to Campbell County.**

County	Site ID	Site Name	Year									
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Converse	9	Antelope Site 7					49	32	85	66	37	64
	10	Long-Term					41	33	121	105	147	72
	88	NARM NA-8	124	101	74	64	87*	76*	101*	54	58	75
	801	Mobile #2		15	39	32	62					
	819	Antelope Site 3	39	65	38							
	850	Antelope Site 5	103	115	66	63	73	54	125	69	59	83
	851	Antelope Coal Company Site #6	102	134	75	91	97*	83	134*	70	58	79
881	Antelope Site 4	53	82	75	59	63	35	103	41			
Johnson	4	Johnson County								74	36	67
Natrona	1	Casper SLAMS	48	54	38	32	49	39	43	31	22	56
	5	Casper Mobile						29	73	17		
Powder River	1	Broadus	126*	110	92	91	112	84	167	91	101	124
Sheridan	2	Police Station SLAMS	57	73	52	45	73	54	82	55	40	49
	3	Highland Park Monitor	41	21								
	6	Sheridan Mobile							70	55		
	1003	Meadowlark SLAMS		34	30	30	48	25	56	33	20	52
Weston	4	Newcastle Mobile					40	34				

\*Exceptional events excluded (asterisks represent the second highest 24-hour PM<sub>10</sub> concentration after one or more events were excluded due to an exceptional event)  
 PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter



**Table A-20. Annual mean PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in Campbell County.**

Site ID	Site Name	Year									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
13	NARM NA-9						21.2	19.9	19.3	17.4	
14	Black Thunder Site 6						11.5	15.4	13.9	13.0	14.1
15	Black Thunder Site 15						18.1	18.7	16.9	14.7	19.2
17	Buckskin West										24.0
84	School Creek SC-1	18.1	23.0	18.6	17.7	19.6	18.1	20.0	18.4	17.0	18.2
86	School Creek SC-3	23.0	30.3*	23.6	23.9	23.5	22.2	21.5	18.9	19.8	25.8
87	School Creek SC-2	22.1	31.2*	24.0	25.7	31.8	28.5*	28.2	25.2	24.3	30.4
99	Wright	10.5	18.3	15.5	14.3	15.4	11.6	13.6	15.8	11.1	13.6
303	Coal Creek Site 3		21.6	16.8	13.3	13.7	11.0	13.4	11.3	8.7	11.4
456	Campbell County	11.5	16.0	11.8	11.3	12.3	10.0	10.4			
800	Gillette Mobile	10.5	19.2								
802	1 Site (BA-1)	10.4	10.0	8.1	9.5	11.0	8.9	10.2	8.8	8.2	11.7
808	Eagle Butte EB-3	19.4	25.4	17.3	17.9	17.3	19.2	24.0	18.2	16.3	22.3
826	Rawhide Hilltop	20.1	25.2	18.2	17.5	18.8*	16.4	18.7	17.1	14.5	19.1
841	Coal Creek Site 7	11.2	10.7	9.1	8.1	10.6	8.4	10.8	9.6	7.5	13.4
857	Black Hills Power Site 4	14.8	18.5								
869	NARM RO-1	40.8*	55.1*	35.9	29.0	30.2*	26.3*	29.4*	27.1	25.5	30.3
875	Black Thunder Mine Site 3	21.6	27.7	20.5	19.5	17.8	13.6	12.5	10.8	11.1	12.5
883	Cordero Rojo Site W	13.8									
884	Buckskin West	14.9	19.3	14.9	13.9	14.2	12.0	14.6	13.4	13.2	10.1
885	Cordero Rojo Site E-10	23.8	31.6	22.9	20.8	21.2	18.5	20.5	14.7	14.0	18.1
886	Caballo Mine CB-8	19.9	24.2	17.4	16.2	17.7	15.8	16.5	13.9	12.1	15.9
889	Cordero HV-3/PM-3	9.0									
890	Coal Creek Site 26	11.0	11.9								
891	Black Thunder BTM 36-2	20.1	27.3	21.8*	23.9	26.3	23.8*	24.5*	21.2*	17.6	23.6
892	Belle Ayr BA-4	20.9	17.8	13.0	12.8	15.3	13.7	12.5	9.8	8.9	10.7
893	Belle Ayr BA-3	10.0	9.9	8.5	8.1	9.8	7.1	17.2	12.7	10.1	13.1
894	Jacobs Ranch Site 4	11.8	10.6								
895	Rawhide North Site	19.3	24.8	17.7	17.8	20.4	16.2	20.0*	16.4	14.5	22.2
897	Dry Fork Site DF-4		13.5	8.2	7.8	9.6	7.8	10.3	9.8	8.5	9.4
898	Belle Ayr Ranch House Monitor			8.9	11.5	9.9	8.1	19.2	16.5	13.0	20.5
901	Clovis Point Mine Site CP-1	24.7	23.9*								
907	Black Thunder Site 12	20.8	31.8	19.1							
908	Caballo Mine Site CB-9	17.0	20.6	15.7	14.5	17.0	15.2	15.7	13.1	11.2	14.9



**Table A-20. Annual mean PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in Campbell County.**

Site ID	Site Name	Year									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1002	Gillette SLAMS	16.2	17.7	14.0	10.9	11.2	12.6	15.0	12.3	12.1	14.7
1003	Cordero Rojo Site W-11	18.1	20.7	17.7	15.6	12.6	10.7	13.2	11.2	10.3	12.3
1009	Cordero Rojo Site S-11	17.5	19.1	15.1	14.7	13.4	10.2	13.1	10.9	8.6	10.9
1877	Black Thunder Sites 25-3, 25-4, 25-5	10.8	13.0	12.6	11.4	15.1	8.0				
1879	Dry Fork Site DF-2	12.2	14.3	14.7	12.0	13.7	12.1	14.7	13.4	11.9	14.1
1896	Dry Fork Site DF-3	9.5	5.6								
1899	Buckskin Mine North Site	22.7	25.8*	17.0	14.9	16.0	12.8	15.2	13.5	11.9	15.1
1900	NARM NA-7	17.5	25.7	18.9	18.2	20.1	10.9				
1906	Relocated Eagle Butte Mine Site 2	11.7	11.6	11.2	10.3	10.7	9.7	11.7	10.9	9.2	10.9
1915	New Site Known as BTM 31-1	16.5	21.4	19.4	16.5	15.7	10.0				
1917	Black Thunder Mine JR5	20.4	26.9	21.7	20.6	24.9	12.9				
2900	Eagle Butte EB-5	9.4	12.2	10.1	12.6	17.3	13.5	19.6	14.9	12.3	15.3
2901	Eagle Butte-Rawhide School Monitor			14.5	14.4	15.9	14.7	18.8	20.9	14.7	26.2
5555	Wyodak Site 5		22.4	16.1	14.1	13.6*	10.9	15.0	15.0	13.2	15.9
6666	Wyodak Site 6		26.8	18.6	18.8	18.8*	19.2	20.5	17.4*	14.9	21.1

\*Exceptional events excluded

PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

**Table A-21. Annual mean PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) at monitoring sites in counties adjacent to Campbell County.**

County	Site ID	Location	Year									
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Converse	9	Antelope Site 7					13.3	10.8	16.0	17.3	12.0	13.8
	10	Long-Term					7.7	6.2	9.2	11.2	12.4	15.3
	88	NARM NA-8	23.4	31.9	23.4	22.4	23.2*	21.1*	22.6*	17.9	17.2	20.8
	801	Mobile #2		10.1	10.0	8.9	8.6					
	819	Antelope Site 3	10.9	17.3	14.4							
	850	Antelope Site 5	26.9	34.1	25.2	24.7	20.9	17.8	21.2	24.0	16.6	20.6
	851	Antelope Coal Company Site #6	32.2	38.5	31.5	30.0	30.5*	26.5	26.8*	21.5	19.9	20.9
881	Antelope Site 4	17.2	24.5	19.8	18.2	15.9	12.6	15.8	12.5			
Johnson	4	Johnson County								13.3	7.1	8.4
Natrona	1	Casper SLAMS	14.6	17.4	15.6	14.2	15.6	14.3	14.9	13.6	10.6	13.5
	5	Casper Mobile						9.3	11.1	5.3		
Powder River	1	Broadus	27.1*	34.1	24.1	25.3	27.4	21.8	27.7	20.1	16.7	29.1
Sheridan	2	Police Station SLAMS	19.3	22.1	16.6	16.0	17.3	17.1	17.9	17.3	14.1	14.0
	3	Highland Park Monitor	13.2	11.8								
	6	Sheridan Mobile							15.4	16.5		
	1003	Meadowlark SLAMS		15.1	10.2	10.3	10.7	10.4	11.8	10.7	9.3	11.7
Weston	4	Newcastle Mobile					14.1	11.3				

\*Exceptional events excluded

PM<sub>10</sub> = diameter less than or equal to 10 microns/inhalable particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter

## Vegetation

**Sagebrush Shrublands.** Distribution of sagebrush shrublands varies based on the sagebrush species and subspecies, but ranges from basins and valley bottoms, to undulating terraces and foothills, to steep slopes and mountainous areas. Soils associated with sagebrush shrublands are xeric soil types and vary in texture and depths.

Sagebrush stands can be dense, patchy, or sparse; dominated by a single species or subspecies of sagebrush; or consist of a mosaic of multiple species of sagebrush. Often the mosaic stands are intermixed with other shrubs, such as rabbitbrush, antelope bitterbrush, greasewood, shadscale, winter-fat, and spiny hop-sage (Paige and Ritter 1999). Typically, sagebrush communities contain three to four vegetation layers: 1) a shrub layer, 12-40 inches tall, 2) forbs and caespitose grasses, 8-24 inches, 3) low-growing grasses and forbs less than 4-8 inches tall, and 4) a biological soil crust (Miller and Eddleman 2000). Sagebrush shrublands are associated with other plant communities, including aspen, mountain shrubs, salt desert shrubs, and open conifers (Wyoming Interagency Vegetation Community 2002).

In Campbell County, Wyoming big sagebrush communities are found below 6,000 feet and mountain big sagebrush communities above 7,000 feet. The transition from 6,000 to 7,000 feet where these two communities grow together makes these species difficult to separate. Additionally, black sagebrush is located on shallow to very shallow rock soils and grows in association with Wyoming and big sagebrush between 5,000 and 7,000 feet. Basin sagebrush is associated with deep to deep soils in drainage bottoms and stream terraces and are mostly components of other shrub communities. Silver sagebrush is abundant in the sandy soils at lower elevations on shrub sand dunes.

**Prairie Grasslands.** Campbell County prairie grasslands are classified as mixed-grass prairie with common plant species, including needle-and-thread, western wheatgrass, blue grama, Sandberg's bluegrass, prairie Junegrass, upland sedges, and Indian ricegrass (Knight 1994). Prairie grasslands generally occur on deep, well developed soils. Frequent and occasionally intense natural disturbances, such as drought, fire, and grazing, characterize prairie grasslands (Nicholoff 2003). This level of disturbance results in a predominance of perennial grasses, sedges, and herbaceous forbs that have their buds at or just below the soil surface minimizing their susceptibility to damage (Knight 1994). Regular disturbances create areas of vegetation in various stages of recovery, resulting in a mosaic habitat diversity. Along with the disturbance, availability of water through snow drifts is another factor influencing the local composition of prairie plants.

Historically, Campbell County's prairie grasslands were incorporated into cattle and sheep ranches, which are still held in private ownership today. This allows for large tracts of grasslands to persist relatively intact.

**Riparian.** Riparian areas are distinct green corridors demarcating streams from uplands. They are vital zones of ecological processes that connect landscapes and they support diverse plant and animal communities (Gregory et al. 1991). These areas buffer water loss from uplands, filter chemical and organic wastes, trap sediment, build and maintain stream banks reducing soil

erosion, and moderate stream temperatures. The diversity in plant species makes these areas valuable to wildlife through high quality forage, nesting habitats and corridors for wildlife movement. Riparian areas are used for agriculture, recreation, travel, water development and housing.

## **Weeds, Pests, and Invasive Species**

One of the most common noxious weeds (see Wyoming Statute 11-5-102(a)(xi)) in Campbell County is leafy spurge. Campbell County has been implementing a special control program for over 25 years that has contained most major infestations to the northwest corner of the county. Leafy spurge is a very hardy weed that is difficult to remove after an infestation takes place, therefore early detection and control is imperative. Leafy spurge is a perennial species that reproduces from seeds and creeping roots. The seed pods on the plant will pop and shoot the seeds up to 20 feet from the parent plant.

Bulbous bluegrass is not officially designated a noxious weed but it is an invasive species that has been spreading in Campbell County (Jarmusz 2014). It is replacing desirable grasses. Controlling the plant is proving difficult, but testing is currently being conducted on different methods of eradication.

## **Threatened, Endangered, and Special Status Species**

The USFWS lists three Endangered Species Act (1973; ESA) -protected or candidate species in Campbell County (USFWS 2021). No critical habitat for federally-listed species is designated in Campbell County. The three species include:

- Ute's ladies'-tresses orchid, threatened
- Northern long-eared bat, threatened
- Monarch butterfly, candidate

Ute's ladies'-tresses orchid is a plant associated with open riverine and wetland areas. It generally is found in grassy wetlands and swales associated with small rivers and streams where soils remain moist through much of the growing season (Fertig and Heidel 2007, Heidel et al. 2008). The orchid is a perennial plant that is dependent upon an association with fungus living in the soil. The orchid may not flower or put up leaves every year, as it is capable of persisting underground in association with the fungus. Ute's ladies'-tresses orchid is not known to exist in Campbell County, but a known population exists in northwestern Converse County (Fertig and Heidel 2007, Heidel et al. 2008).

Northern long-eared bat was listed as a threatened species in April 2015 (80 Federal Register [FR] 17974 [April 2, 2015]). The northeastern corner of Wyoming is included in the known distributional range of the northern long-eared bat (USFWS 2014f, 2014g). The bat may roost as individuals or in colonies during summer in crevices, hollows, under the bark of live or dead trees, in structures, or in caves and mines (USFWS 2014a, 2014b). In winter, the northern long-eared bat hibernates in caves and mines (USFWS 2014a, 2014b). There are breeding records for northern long-eared bat in the northeastern corner of Wyoming (Orabona et al. 2021).



Monarch butterfly is currently a candidate species for listing under the ESA. Conservation of the monarch butterfly is a priority since populations have been in decline. Monarch butterflies occur throughout Campbell County. The Western Association of Fish and Wildlife Agencies (WAFWA) Western Monarch Working Group (WMWG) was established in 2017 to proactively lead a multi-state cooperative effort for conservation of the western monarch population. The goal of the WMWG is to identify and promote conservation strategies for the entire life cycle of the western monarch population to achieve the vision of a viable western population of monarch butterflies (WAFWA 2019).

Gray wolves in the northern Rocky Mountains were delisted everywhere except Wyoming in 2009 (74 FR 15123 [April 2, 2009]), and the delisting was extended to Wyoming in 2012 (77 FR 55530 [September 10, 2012]). Wolves are currently considered to be trophy game or predatory animals in Wyoming and are managed by WGFD, though USFWS continues to monitor wolf numbers (USFWS 2014c). Between 2002 and 2013, the northern Rocky Mountain wolf population exceeded recovery goals, and delisting did not jeopardize the population (USFWS 2014c). No wolf packs exist in Campbell County, but individual wolves may range far from known pack territories. In 2011, a single wolf killed a ewe on private property (USFWS 2011). If wolves become more prevalent in Campbell County, predation on livestock and wildlife could cause economic harm to family-owned businesses, such as livestock farmers and game outfitters. Campbell County is concerned about regulatory restrictions on control of listed predators, such as gray wolves prior to 2012.

In the case of listed predators such as the gray wolf, the recovery plan included provisions for removing problem animals that preyed on livestock (USFWS 1987). USFWS funds for recovery efforts are limited, and funds generally are allocated based on species priority, regional workloads, and partnership opportunities that maximize use of funds or bring in additional funds or resources (U.S. Government Accountability Office 2005). Campbell County should investigate opportunities to cooperate with federal and state agencies on predator management.

Summaries of the BLM and USFS sensitive species are in the tables in *Lists of Sensitive Species*, above.

## **Timber**

### **Streamside Management Zones**

In Wyoming, some of the most important best management practices (BMPs) are those that deal with Streamside Management Zones (SMZs). SMZs refer to the stream, lake, or other body of water, and an adjacent area of varying width where management practices that might affect wildlife habitat or water quality, fish, or other aquatic resources need to be modified. The SMZ encompasses a strip at least 50 feet wide on each side of a body of water.

### **Wyoming Forestry and Silviculture Best Management Practice Field Audits**

Field audits of Forestry and Silviculture BMPs have been conducted regularly since the year 2000 (Wyoming State Forestry Division [WSFD] 2014). Although no audits have been conducted in Campbell County, findings are applicable. The audits are conducted by an



interdisciplinary team comprised of professionals in natural resource fields from government and private sectors. The most recent audit was in 2013. The nearest audit site to Campbell County, Huseby, is located on private land. The sale followed BMP guidelines, except for the width of the SMZs. In the 2011 audit, the closest site to Campbell County was the Garden Creek Timber Sale, located on state land in Natrona County; this was a re-audit from 2007. A major concern was the amount of thistle and other noxious weeds that would be established following the burning of the slash piles. While thistle did take over those small sites, it is decreasing over time and the sites are converting back to native grasses and shrubs. The form used in the field for the audits can be found at Wyoming Office of State Lands and Investments (2006).

## **Insect and Disease Management**

Wyoming is facing unprecedented forest health issues. The results of the lack of age class diversity and overall susceptibility to insect attack are being observed throughout the state, including Campbell County. Entomologists have stated it is an anomaly for all major bark beetles to be at epidemic levels at the same time. In some areas, mortality of mature trees can be 100%. Limber pine stands are experiencing significant mortality from a combination of mountain pine beetle and white pine blister rust. In many areas, older forests are being converted to young forests on a large scale due to pine beetle epidemics. The result will be a new generation of even-aged stands at the landscape scale. Ultimately, the cycle will repeat. There needs to be an increased focus on density management in young stands in the future. Management will be needed to keep remaining older stands resilient and to accelerate the growth of younger stands. (WSFD 2009).

Mountain Pine Beetle and Ips Beetle. Mountain pine beetle and Ips beetle are native to the forests of western North America, inhabiting ponderosa and limber pine trees, among others. Outbreaks encompass the Black Hills, Shoshone, Big Horn, Medicine Bow and Bridger Teton National Forests. The beetles are endemic to the forests in Campbell County as well. These insects have normally played an important role in the life of a forest and been an important part of the ecosystem long before human settlement. The beetles attack old or weakened trees and speed the development of a younger forest. They deposit their larvae beneath the bark of a tree to feed on its nutrient rich sapwood. Trees which are too old or sickly to repel them are killed by the larvae feeding on the phloem, girdling the tree, and by “blue stain,” a distinctive fungus carried by adult beetles that grows in the sapwood, shutting down the flow of water to the needles. This leaves room for new trees to grow and is an essential function of the forest, bringing about diversity in age classes of trees. Fires and beetles helped ensure that age class diversity was maintained. Historically, beetle populations were kept in check by long, cold winters, which kill off the beetles. These conditions are becoming less frequent, so more beetles are surviving through winter. In addition to less die off, reproduction rates have increased. Beetles are ectotherms, meaning they rely on heat from their environment to fuel their physiological processes, so the higher the temperature, the better they are at reproducing.

Wyoming State Forestry Division (WSFD), U.S. Forest Service (USFS), Bureau of Land Management (BLM), and private landowners have been taking action to address bark beetle infestations by focusing on increasing the pace and scale of active forest management across Wyoming. Pine beetle activity is being actively suppressed by forest management in the western Black Hills in Crook and Weston counties, where less than 1,000 newly affected acres were

detected in 2013. The outbreak has not been as severe in Campbell County as in other areas, but the potential exists for it to worsen.

Emerald Ash Borer. The emerald ash borer is a green beetle native to Asia and Eastern Russia. Outside its native region, the emerald ash borer is an invasive species, and emerald ash borer infestation is highly destructive to ash trees in its introduced range. The emerald ash borer has killed millions of trees across the U.S., which has caused regulatory agencies to enforce quarantines. The losses have been in the tens of millions of dollars (Emerald Ash Borer Info 2014). Michigan was the site of the first North America discovery in 2002, likely arriving via wooden packing materials in shipments from Asia. Imported packing crates now have to be treated. The invasion soon spread to the other Great Lakes states, Canadian provinces, and the states adjacent to those. In the fall of 2013, it was found for the first time in the western U.S. in Boulder, Colorado (Chilton 2013). The insect could feasibly spread to Campbell County municipalities with ash trees.

Trees suffering the early stages of an emerald ash borer infection have been successfully treated with injections in their trunks or in the soil using systemic pesticides. The injected pesticides travel throughout the tree, just under the bark where the emerald ash borer likes to feed. Injections cost \$250 per tree per year. Once the emerald ash borer is in the area it is necessary to keep treating the trees yearly. Injections leave holes in the trunk, damaging the bark and increasing a tree's chances of becoming infected with other diseases. Ash trees with other health problems or growing in undesirable locations, such as under power lines, should not be considered candidates for preservation. Another option is to not treat the ash and plant another tree species to replace it. Firewood and wood chips from ash trees could bring emerald ash borer. Consideration should also be given to trees cut down locally. If it is diseased wood, it should be kept under plastic for a year before processing.

White Pine Blister Rust. White pine blister rust (WPBR), an introduced pathogen, is affecting the distribution and health of ecologically important limber pine stands. It continues to spread in Wyoming (Kearns et al. 2014). WPBR was introduced to North America from Europe in shipments of infected pine seedlings in the early 1900s (Geils et al. 2010). WPBR requires two host species to complete its lifecycle: 1) pines, and 2) *Ribes* (a genus of about 150 species of currants). Pine can only be infected by basidiospores produced on currant plants. The fungus grows into the wood of pines, causing cankers (areas of dead bark). The fungus continues to develop on the bark, eventually forming blisters, which break open after a 3-year or longer incubation period, and the blisters release spores that are disseminated by wind and infect *Ribes* plants. Cankers will kill a tree if they grow into the trunk. If branches contain cankers about four inches from the trunk, the tree will eventually die. Seedlings die within two to four years after infection because the infection entry point is needles and there is not much distance from the needles to the main stem. Once the infection hits the main stem, it is lethal. In older trees, it may take up to 30 years for the infection to kill the entire tree. Top-killing can occur, which reduces cone production and takes the tree out of the reproductive population.

Limber pine stands statewide are being killed by WPBR, especially in the southern Bighorn Mountain range in northern Natrona County. This is the oldest infection in Wyoming, having killed 50% of the limber pine since the 1960s. In addition, the stress caused by WPBR makes

limber pine more susceptible to attack from the mountain pine beetle, as the trees lack the energy reserves to thwart attacks. This has been made worse by the current drought, causing increased mortality. If WPBR follows its established patterns, it would be feasible to estimate that 75% of the native limber pine in Wyoming would die as a result of this pathogen. This is a significant concern as limber pine often grows on sites that are too harsh for other plants, and there may be no surrogate species for them on these sites (Schoettle et al. 2014). Limber pine stands in Campbell County are at risk of this mortality.

Many management approaches are available to combat WPBR, but none are satisfactory. Treatment of the disease has not been effective, as there are no fungicides available for prevention or treatment of WPBR. A form of control practiced in some areas is to remove *Ribes* plants from any nearby pines. Because the infection moves from currant plants, to pines, and back again, it cannot continue to exist without its alternate host. Removal of currants is rarely successful in practice, as they readily re-grow from small pieces of root left in the soil, and the seeds are widely spread in birds' droppings. (Forestpathology.org 2009). The USFS conducted intensive *Ribes* eradication efforts in Idaho in the 1940s and 1950s, sending work crews through white pine stands to dig up or pull *Ribes* plants and it proved unsuccessful.

Pruning is very expensive and only feasible in high-value commercial trees. Bark blisters found on branches over 10-15 centimeters from the bole may be pruned off, which will stop the spread of the disease to the rest of the tree. Pruning infected branches can prevent infections near the stem from growing into it, where they are likely to girdle and kill the tree. If the branch dies before the fungus reaches the next larger branch or stem, the fungus is terminated. If it colonizes the stem, especially when it is small, the tree is terminated. If the main trunk is affected, control is not possible and the tree will die.

Current efforts are focusing on developing genetically resistant strains of the 5-needle pines. The development of blister-rust-resistant pines, the possible increase in natural resistance to the disease, the planting of 5-needle pines in low blister rust hazard zones, and pruning of blister rust cankers in certain high-quality 5-needle pine stands can help achieve a balance of conifer species in the forest.

Western Gall Rust. Western gall rust is a fast spreading pine-to-pine rust with no alternate host that causes galls on branches or stems. It is a threat to ponderosa pine in Campbell County (Means 2014). Pustules full of spores form in bark cracks on galls and rupture during moist weather and release spores that disperse in the wind. Most infections occur on the current year's shoots or needles. It affects trees of all ages, causing growth loss, branch death, and deformity. Mortality is most common in seedlings and saplings because galls can quickly girdle the small stem. Branch galls typically only live a few years until the branch and the gall die. Mortality may result when many galls occur throughout the crown. Mass infection tends to occur in wave years when conditions are favorable, about every five to 15 years. Vigorous trees are more prone to infection during this time because they have a larger proportion of susceptible foliage (USFS 2003).

Management is complicated because of the lag time between infection and evidence of symptoms. Complete sanitation, or destroy and regenerate to start over, is difficult. Other options

are to remove all trees with stem infections and select leave trees that are disease-free or only have branch galls or stem cankers high in the crown; prune infected branches to reduce inoculum levels even though this provides little benefit to the tree because branches with galls usually die anyway; prepare for disease losses by regenerating stands at increased stocking levels to compensate for future rust-caused mortality; and plant non-host species that are adapted to the site. Trees with stem cankers can be hazardous in recreation areas and should be removed.

## **Fire Management**

Increased fire activity during a warmer/drier period could negatively impact water quality as larger, hotter fires affect vegetative cover and soils. It is practical to prevent the build-up of excessive fuel loads to reduce the potential for catastrophic conflagrations. The long-held belief that beetle infestations and resulting dead kill lead to more devastating forest fires is currently being challenged. Although there is some disagreement, studies imply that beetle kill may actually limit the effect and reach of fires by reducing small fuels (Shoemaker 2010).

In 2013, the BLM Buffalo Field Office approved a thinning project in northern Campbell County in ponderosa pine stands near ranch homes and developments in a high fire occurrence area. The objective of thinning and pine burning in this area is to improve the ponderosa stands' resistance to large, stand-replacing fires, which have become a common occurrence in the vicinity during the last decade. Six large fires occurred between 2001 and 2012. Treatments should moderate future fire behavior and increase safety for firefighters and local residents, as well as improve the stand's resistance to drought and bark beetle outbreaks (BLM 2013). It is Campbell County's policy to continue to support efforts like this and to invest in/promote projects to reduce fire risk.

The USFS Forest Service Manual 5100 – Fire Management, specifies the USFS objective to identify, develop, and maintain fuel profiles consistent with historic fire regimes characteristic of sustainable ecosystems and/or consistent with land uses (USFS 2012). Sustainable ecosystem's fuel treatment shall be consistent with historic fire regimes and natural variability in fuel profiles characteristic of that vegetation. Fuel treatment shall consider cost-efficient protection of agency lands with consideration for cooperative opportunities and sensitivity to social/political concerns on neighboring ownerships.

As more homes in forested lands are built next to public lands (wildland/urban interface), it becomes increasingly important to protect these structures from wildfires. Campbell County will work with communities to ensure adequate protection from wildfires. This includes but is not limited to ensuring that private property owners clear defensible spaces around their structures.

## **Timber Management for Wildlife Habitat**

Proper timber management can create favorable habitat by altering characteristics that influence wildlife, such as edge habitats, habitat diversity, interspersion, and plant succession. Proper arrangement of food, water, and cover can also determine the use and value of wildlife habitat. It is Campbell County's policy to improve wildlife habitat through forest management.

Forest management to improve wildlife habitat includes timber harvest that provides travel corridors, thinning, and prescribed fire. Timber harvest sometimes fragments forest wildlife habitat into isolated stands. For wildlife to use these areas, a travel corridor may be required



through open areas to forested stands. Travel corridors should be established by leaving a strip of forest at least 100 feet wide between open areas (Yarrow 2009). Thinning a closed stand allows sunlight to reach the forest floor, increasing the production of understory forage and browse. The growth of understory legumes and herbaceous plants can also be stimulated by a properly conducted and timed prescribed fire that accelerates the germination of seeds stored in the litter. Studies have shown that prescribed burning increases the nutrient content and palatability of many plants valuable for wildlife and sets back succession to create and maintain cover.

### **Tree Species for Living Snow Fences and Shelterbelts**

Several trees may be considered when deciding what species to plant. Ponderosa pine trees are native to Campbell County, are fairly drought tolerant, and grow well in most soils but do best in a well-drained soil. The Black Hills spruce is also endemic to Wyoming, has lower moisture needs than other spruces, and provides excellent wind protection (City of Gillette 2005). The eastern red cedar is excellent for windbreaks and cover for wildlife. It thrives with little or no attention, and is tolerant of adverse conditions. Its appearance may not be desirable for some landscapes and it spreads aggressively, which may make Rocky Mountain juniper a better option.

### **Urban Forestry**

Drought-tolerant trees are built for survival in drier, less hospitable climates. However, selecting the best trees to plant in urban areas encompasses other criteria as well. Management plans to sustain or enhance healthy urban tree cover will be most successful incorporating local tree data and relevant local, social, and ecological factors and costs, including community desires relative to canopy cover and associated ecosystem services.

Like rural forests, urban forests are subject to pests, disease, invasive plants, wildfire, drought, air pollution; and severe weather; but in urban forests these events are more likely to cause damage to people and property. The insects and diseases that affect urban forests cause or have the potential to cause significant damage. Endemic pests such as mountain pine beetle have caused severe damage to urban forests (Ellig 2008). Invasive species, such as the gypsy moth, emerald ash borer, and the fungi that cause Dutch elm disease and chestnut blight have caused catastrophic tree mortality that has virtually eliminated dominant tree species in some places (Dozier 2000, Liebhold et al. 1995). Invasive plants can degrade or modify urban forests in part by removing and replacing native plants and altering ecosystem structure. Wildfires can cause substantial damage to urban forests and dramatically alter the urban landscape, especially in the wildland-urban interface (Spiratos et al. 2007).

Lack of urban forest management can lead to the loss of tree health and canopy cover, prompting a change in species composition, thereby reducing the quality of the environment and the ecosystem services derived from it. These potential changes could increase environmental management and human health costs, as well as decrease the quality of life for residents.

Management efforts can be directed to reduce these threats and sustain important resources. Long-term planning and management can reduce the risks associated with various urban forest threats and ensure ecosystem services that will continue to improve urban environmental quality and enhance human quality of life and well-being. The City of Gillette has a City Arborist and

their Forestry Division cares for over 8,000 trees and shrubs in the city. Local and regional landowners, communities, and agencies can plan for sustainable growth while conserving the beauty and benefits of Campbell County’s urban forests.

## **Livestock and Grazing**

Livestock grazing is an important agricultural industry in the State of Wyoming, and Campbell County is ranked sixth in the state for all cattle and for breeding sheep, with a livestock inventory value of 107.7 million dollars in 2013 (Community Builders, Inc. [CBI] 2013). Between 2004 and 2013, the livestock inventory of Campbell County has increased by more than 20 million dollars (CBI 2013). Cattle numbers across Wyoming have varied from between 1 million and 1.5 million since the early 1950s. Sheep numbers declined considerably during this time period, dropping from 2 million to 275,000 (J. Nagagna, Wyoming Stock Growers Association, personal communication, June 23, 2014). Campbell County contained 79,670 cattle and calves in 2012. Only 27,597 sheep and lambs were present in Campbell County in 2012 (U.S. Department of Agriculture 2012). The higher proportion of cattle compared to sheep in Campbell County is consistent with the overall trend in Wyoming.

Grazing and livestock related activities make up 2.1% of the total employment of Campbell County (CBI 2013). While other industries are responsible for a greater percentage of total employment, grazing and livestock production provide many benefits to the citizens, wildlife, and health of Campbell County’s landscape. Proven methods of livestock grazing continue to maintain the health and productivity of grazing lands and provide improved wildlife habitat, healthy watersheds, and soil erosion control.



**Appendix B. Regulatory Framework**

## Appendix B Table of Contents

<b>Regulatory Framework.....</b>	<b>B-4</b>
Air Resources.....	B-4
Federal.....	B-4
State.....	B-6
Local.....	B-9
Cultural Resources.....	B-9
Federal.....	B-9
State.....	B-10
Soils.....	B-11
Federal.....	B-11
State.....	B-11
Local.....	B-11
Vegetation.....	B-12
Federal.....	B-12
State.....	B-12
Local.....	B-12
Visual.....	B-13
Federal.....	B-13
State.....	B-13
Local.....	B-14
Water.....	B-14
Federal.....	B-14
State.....	B-14
Local.....	B-15
Weeds, Pests, and Invasive Species.....	B-15
Federal.....	B-15
State.....	B-15
Threatened, Endangered, and Special Status Species.....	B-16
Federal.....	B-16
Predators.....	B-19
Federal.....	B-19
State.....	B-20
Local.....	B-20
Wildlife.....	B-20
Federal.....	B-20
State.....	B-21
Economics.....	B-21
Federal.....	B-21
State of Wyoming.....	B-22
Local.....	B-23
Timber.....	B-24
Federal.....	B-24
State.....	B-25
Local.....	B-26

Livestock and Grazing.....	B-28
Federal.....	B-28
State.....	B-28
Local.....	B-29
Mineral Resources.....	B-30
Federal.....	B-30
State.....	B-31
Outdoor Recreation.....	B-32
Federal.....	B-32
State.....	B-33
Local.....	B-34
Transportation and Rights-of-Ways.....	B-34
Federal.....	B-34
State.....	B-34
Local.....	B-34

## Regulatory Framework

### Air Resources

#### *Federal*

Congress enacted the 1970 Clean Air Act (CAA; 42 US Code [USC] 7401-7671q [1970]) and its Amendments of 1977 and 1990 to protect public health and welfare from different types of air pollution caused by a diverse array of pollution sources. The CAA has several sections or titles that affect emission sources and air quality within Campbell County. The CAA recognizes that air pollutants do not recognize political boundaries, so federal rules that affect sources outside of Campbell County may also improve air quality conditions within the county. The US Environmental Protection Agency (USEPA) is charged with implementing the CAA following the instructions from Congress provided within the CAA and its amendments. The CAA defines six criteria air pollutants (CAPs; nitrogen dioxide, sulfur dioxide [SO<sub>2</sub>], ozone, total suspended particulate matter [PM<sub>10</sub>, PM<sub>2.5</sub>] and lead) for which National Ambient Air Quality Standards (NAAQS) are defined under Title I<sup>15</sup> of the CAA. If measured air quality in a region fails to achieve the NAAQS for one of the CAP pollutants, the USEPA designates the area as a nonattainment area (NAA) and States are required to develop a State Implementation Plan with emission control measures and demonstrate that the region will achieve the NAAQS by a specific date. Air quality in Campbell County does not violate any NAAQS. Title I of the CAA also includes the New Source Review and Prevention of Significant Deterioration (PSD) program that requires new or modified sources with emissions above specific thresholds to use Best Available Control Technology (BACT) and demonstrate they will not result in exceedances of any NAAQS or cause deterioration in air quality above specific thresholds. The CAA Amendments has defined 156 National Parks and Wilderness Areas as PSD Class I areas that are offered special more stringent air quality and air quality related value (AQRVs; e.g., visibility and deposition) protection. Campbell County has no Class I areas and is classified as PSD Class II area. Title I of the CAA also has provisions for controlling hazardous air pollutants (HAPs) in order to reduce exposure to air toxins.

Title II<sup>16</sup> of the CAA is designed to control emissions from on-road and non-road mobile sources. The USEPA has implemented numerous rules to control emissions from on-road light- and heavy-duty vehicles, as well as non-road sources. These national rules affect mobile source emissions in Campbell County. Title III<sup>17</sup> of the CAA provides general provisions. Title IV<sup>18</sup> of the CAA is designed to reduce acid rain by controlling SO<sub>2</sub> and nitrogen oxide emissions from large point sources. Title IV has implemented a national cap and trade program for these two pollutants with several electrical generating units in Campbell County affected by this program. Title V<sup>19</sup> and VI<sup>20</sup> of the CAA are in regards to permitting and stratospheric ozone protections.

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<sup>15</sup> 42 USC 7401-7515

<sup>16</sup> 42 USC 7521-7590

<sup>17</sup> 42 USC 7601-7627

<sup>18</sup> 42 USC 7651-7651o

<sup>19</sup> 42 USC 7661-7661f.

<sup>20</sup> 42 USC 7671-7671q

Over the years the federal government (USEPA) has implemented standards and actions to improve air quality across the entire country as part of the implementation of the CAA. These standards have included mobile sources, as well as large stationary point sources. Federal standards include: the Tier 2 Vehicle Standards, the heavy-duty gasoline and diesel highway vehicle standards, the non-road spark-ignition engines and recreational engine standards, and the large non-road diesel engine rule. The federal government has also implemented regional control strategies for major stationary sources focusing on the eastern US and may extend the program to the western US. The following is a list of federal regulatory actions that would likely lead to emission reductions in the Campbell County (see USEPA website for more details [USEPA 2014a]):

- Tier 2 Motor Vehicle Standards (USEPA 2014b)
- Heavy-duty Gasoline and Diesel Highway Vehicle Standards (USEPA 2014c)
- Non-Road Spark-ignition Engines and Recreational Engines Standards (USEPA 2014d, 2014e)
- Large Non-Road Diesel Engine Rule (USEPA 2014f)
- Mercury and Air Toxics Standards (USEPA 2012a)
- Volatile organic compound MACT (USEPA 2012b)
- Federal Reformulated Gasoline (USEPA 2013)
- Federal Non-Road Spark-Ignition Engines and Equipment (USEPA 2008a)
- Locomotive Engines and Marine Compression-Ignition Engines Final Rule (USEPA 2008b)
- CAA Title IV - Acid Rain Program
- Low-Sulfur Fuels (USEPA 2012c)
- Clean Air Visibility Rule (USEPA 2005)
- Oil and Gas New Source Performance Standards (August 16, 2012; USEPA 2012d)

The Wyoming Bureau of Land Management (BLM) Buffalo Field Office (BFO), whose planning areas include Johnson, Campbell, and Sheridan counties, is required to disclose the air quality and AQRV impacts due to oil and gas and mining developments on Federal lands under the National Environmental Policy Act of 1969 (NEPA). The BLM BFO has prepared a Resource Management Plan (RMP; BLM 2013a, 2014a) that discussed potential development in the BFO planning area that could affect emissions and air quality in Campbell County.

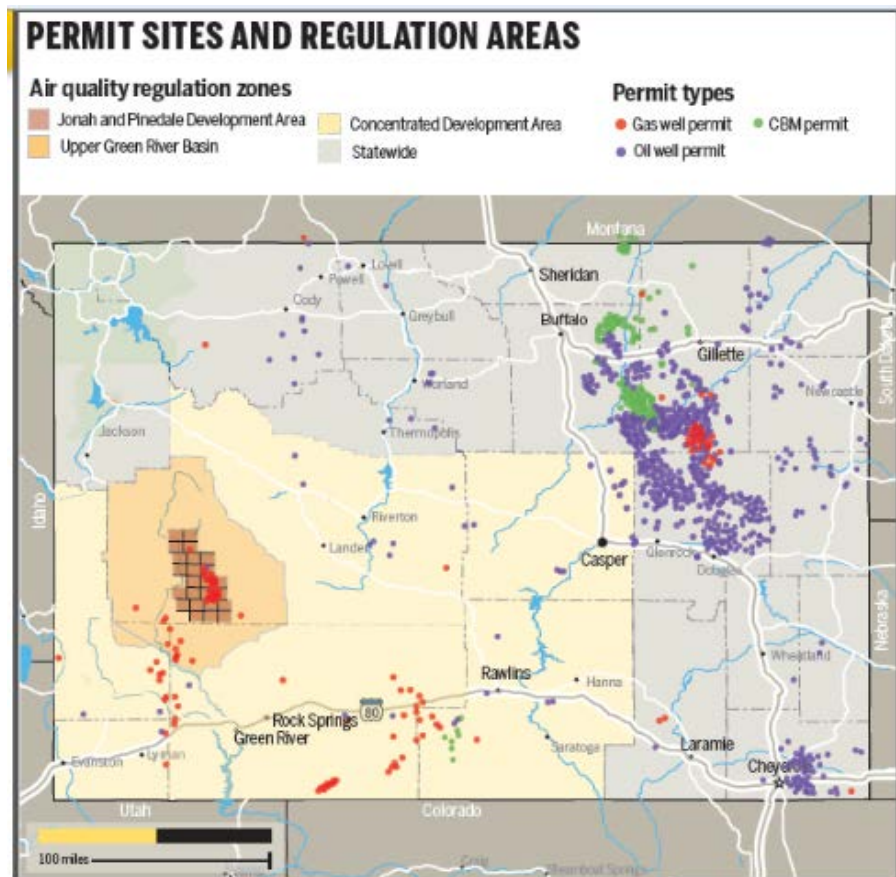
The US Forest Service (USFS) Rocky Mountain Region (Region 2) Air Group developed a ranking system which identified visibility and aquatics, terrestrial, and depositional information as the highest concerns and priorities for monitoring in Thunder Basin National Grasslands (TBNG; USFS 2001). USFS has projected future emissions sources to include a major coal bed methane development projects within the Powder River Basin, along with increases in gas

processing and power generating facilities in northeastern Wyoming (USFS 2001). Furthermore, USFS Forest Service Manual (FSM) 2500 – Watershed and Air Management Region 2 will be adhered to where applicable (USFS 1992a).

### State

The Wyoming Department of Environmental Quality (WDEQ) has issued rules for reducing emissions in Wyoming that would affect sources in Campbell County. These state regulations have focused on reducing emissions from oil and gas sources in Wyoming. The WDEQ oil and gas permitting guidance (WDEQ 1997; revised September 2013) has identified different levels of controls for different areas of the state with the ozone nonattainment area in southwest Wyoming having the highest control requirements. These areas are shown in Figure B-1 and in terms of most to least stringent control are as follows:

- Jonah Pinedale Anticline Development and Normalized Pressure Lance (JPAD/NPL) area;
- Upper Green River Basin (UGRB) area;
- Concentrated Development Area (CDA); and
- Statewide, or regulations for the entire State of Wyoming.



**Figure B-1. Locations of the Jonah and Pinedale, Upper Green River Basin, Concentrated Development areas in Wyoming.**

Oil and gas development in Campbell County would be subjected to the statewide oil and gas regulations. Table B-1 below summarizes Wyoming state rulemakings with the statewide regulations affecting oil and gas sources in Campbell County.

**Table B-1. Summary of the Wyoming Department of Environmental Quality (WDEQ)'s rules for reducing emissions.**

<b>Source Category</b>	<b>WDEQ Oil and Gas (O&amp;G) Regulations by Source Category</b>
Drill Rigs Workover Rigs	Wyoming has no separate state restrictions for temporary combustion ignition or spark ignition internal combustion engine.  Non-road Mobile Tier Standards take precedence.  Wyoming has an Interim Policy for the Upper Green River Basin (UGRB) Ozone Non-Attainment area, allowing operators to voluntarily permit temporary drill rig engines with Best Available Control Technology (BACT) in return for future emission credits.
Well Completions	<b>Chapter 6 Section 2 (C6 S2) O&amp;G Permitting Guidance</b> Wyoming has 4 area categories; 1) Concentrated Development Areas (CDA), 2) UGRB, 3) Jonah and Pinedale Anticline Development Area and Normally Pressured Lance (JPAD/NPL), and 4) Statewide refers to all facilities not located in CDA, UGRB, or JPAD/NPL.  Green completions are required in the JPAD/NPL area and CDA's in Wyoming as of July 2014.
Compression	None.
Pneumatic Controllers	<b>C6 S2 O&amp;G Permitting Guidance</b> Install low or no-bleed at all new facilities. Upon modification of facilities, new pneumatic controllers must be low/no-bleed and within 60 days of modification, existing controllers must be replaced with no/low-bleed (well site facilities only - not gas plants).
Condensate & Crude Oil Tanks	<b>C6 S2 O&amp;G Permitting Guidance</b> Wyoming has 4 area categories; 1) CDA, 2) UGRB, 3) JPAD/NPL, and 4) Statewide refers to all facilities not located in CDA, UGRB or JPAD/NPL. <b>JPAD/NPL</b> - 98% control of all new/modified tank emissions upon startup/modification.  <b>CDA</b> PAD Facilities- 98% control upon startup/modification.  SINGLE Well Facilities - 98% control of all new/modified tank emissions $\geq 8$ tons per year (tpy) Volatile organic compound (VOC) within 60 days of startup/modification.  <b>Statewide</b> 98% control of all new/modified tank emissions $\geq 10$ tpy VOC within 60 days of startup/modification.  <b>UGRB</b> PAD Facilities- 98% control upon startup/modification.  SINGLE Well Facilities - 98% control of all new/modified tank emissions $\geq 4$ tpy VOC within 60 days of startup/modification.



**Table B-1. Summary of the Wyoming Department of Environmental Quality (WDEQ)'s rules for reducing emissions.**

<b>Source Category</b>	<b>WDEQ Oil and Gas (O&amp;G) Regulations by Source Category</b>
Gas Processing Plants	Wyoming has adopted New Source Performance Standards Subpart KKK on leak detection and repair
Glycol Dehydrators	<p><b>C6 S2 O&amp;G Permitting Guidance</b> Wyoming has 4 area categories; 1) CDA, 2) UGRB, 3) JPAD/NPL, and 4) Statewide refers to all facilities not located in CDA, UGRB or JPAD/NPL.</p> <p><b>JPAD/NPL</b> 98% control of all new/modified dehydrator VOC/hazardous air pollutant (HAP) emissions at start up.</p> <p><b>CDA &amp; Statewide</b> PAD Facilities - 98% control upon startup/modification.</p> <p>SINGLE Well Facilities - 98% control within 60 days of startup/modification for VOC emissions <math>\geq 6</math> OR 98% control within 30 days of startup/modification for VOC emissions <math>\geq 8</math> tpy.</p> <p><b>UGRB</b> PAD Facilities - 98% control upon startup/modification.</p> <p>SINGLE Well Facilities - 98% control within 60 days of startup/modification for VOC emissions <math>\geq 4</math> tpy.</p>
Minor Source Permitting	Emissions from minor sources must be approved through permitting applied through the Wyoming Air Quality Standards and Regulations <b>C6 S2 (a)(i) O&amp;G Permitting Guidance</b> . For VOC emissions $\geq 8$ tpy from sources other than tanks, dehydrators, pneumatic controllers and pumps, water tanks, BACT is considered on case-by-case basis.
Point Source Permitting Threshold	Wyoming has no de minimus permitting threshold outside of their <b>C6 S2(k)</b> exemptions, thus all sources not waived by the Administrator are permitted and undergo BACT analysis.
Pneumatic Pump	<p><b>C6 S2 O&amp;G Permitting Guidance</b> Wyoming has 4 area categories; 1) CDA, 2) UGRB, 3) JPAD/NPL, and 4) Statewide refers to all facilities not located in CDA, UGRB or JPAD/NPL.</p> <p><b>JPAD/NPL</b> 98% control of all new/modified pneumatic pump VOC/HAP emissions at startup/modification or the pump discharge streams shall be routed into a closed loop system at startup/modification.</p> <p><b>CDA &amp; Statewide</b> PAD Facilities - pneumatic pumps shall be controlled by at least 98% or the pump discharge streams shall be routed into a closed loop system at startup/modification,</p> <p>SINGLE Well Facilities - 98% control within 60 days of startup/modification for sites with combustion units installed OR solar, electric, or air-driven pumps for sites without combustion units installed,</p> <p><b>UGRB</b> 98% control of all new/modified facilities at startup/modification or the pump discharge streams shall be routed into a closed loop system at startup/modification.</p>

## Local

In general, Campbell County relies on the federal and WDEQ rules and regulations for controlling air pollutants so has minimal local rules related to air quality. However, air pollution control is accounted for in their planning and local control on air quality regulations and control measures is important to the County.

For example, the *Campbell County, Wyoming: 2013 Comprehensive Plan* (Campbell County Division of Planning and Zoning [CCDPZ] 2013) includes elements for reducing dust from infrastructure development projects. In addition, specific resolutions may be passed to address certain topics that may affect emissions and air quality in Campbell County. Another example of local control is that due to the wildfire danger in 2014, Campbell County passed a resolution restricting open burning (Hall 2014) to reduce the chance of starting a wildfire.

## Cultural Resources

### Federal

#### National Historic Preservation Act of 1966

Section 106 of the National Historic Preservation Act of 1966 (NHPA) applies to federally licensed and federally funded undertakings (federal undertakings), and states that federal agencies must take into account the effects of these undertakings on historic properties (cultural resources eligible for listing on the National Register of Historic Places). The generalized implementing regulations for the NHPA are contained in 36 Code of Federal Regulations (CFR) Part 800 (2000). The regulatory authority for Section 106 will be the designated federal lead agency for the undertaking, and specific implementation of regulations and policy will vary among the different agencies.

Several federal agencies have developed RMPs that broadly guide their planning and management of cultural resources under Section 106:

- BLM BFO RMP (BLM 2013a, pp. 1,140-1,180).
- USFS, Medicine Bow National Forest Land and RMP (USFS 2003a).

Additionally, several federal agencies have developed programmatic agreements (PAs) and/or protocols with the Wyoming State Historic Preservation Office (SHPO). These PAs and protocols guide the implementation of Section 106 by these agencies in the State of Wyoming for specific federal undertakings:

- *Programmatic Agreement Among the Bureau of Land Management, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM will Meet its Responsibilities Under the National Historic Preservation Act: State Protocol Between the Bureau of Land Management, Wyoming State Director and the Wyoming State Historic Preservation Officer* (amended April 25, 2014).

- *Programmatic Agreement Among the U.S.D.A. Forest Service, Wyoming Forests, Wyoming State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Compliance with the National Historic Preservation Act on the National Forests and Grasslands of Wyoming* (2008 version, amended January 7, 2014).
- *Protocol/Guideline between the Wyoming State Historic Preservation Office and the Department of Environmental Quality/Land Quality Division (LQD) Applicable to Non-Coal Projects, Private Surface/Private Minerals* (October 11, 2007).
- *State Level Agreement Between the Natural Resources Conservation Service and The Wyoming State Historic Preservation Office* (Wyoming SHPO 2008)

#### Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act of 1979 (ARPA) pertains primarily to the issuing of permits to conduct archaeological excavation on federal lands and to remove archaeological material from these lands. The regulations also stipulate conditions for curation of archaeological materials collected from public lands. They establish penalties (fines and jail time) for those who illegally collect, sell, or otherwise traffic archaeological materials from federal lands. The implementing regulations for ARPA are contained in 43 CFR Part 7 (1984).

#### Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) applies to Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony. It establishes a process for the return of these objects to lineal descendants and culturally affiliated groups. It also establishes provisions for the unexpected discovery of Native American human remains. NAGPRA applies to federal undertakings. If human remains of any sort are discovered, the county coroner and the lead federal agency should be contacted immediately and all work in the vicinity should stop. The implementing regulations for NAGPRA are contained in 43 CFR Part 10 (1995).

#### Paleontological Resources Preservation Act of 2009

This act establishes regulations and penalties relating to the collection of paleontological resources from federal lands. Collection of vertebrate fossils or large amounts invertebrate or plant fossils is illegal without a permit. It is also illegal to collect invertebrate or plant fossils with mechanized equipment or in such a way that causes significant damage to the land. Regulations have been developed by the US Department of the Interior (USDI) and the US Department of Agriculture (USDA) for specific agencies under each of these departments.

#### *State*

The State of Wyoming has a limited number of statutes and regulations regarding specific requirements and protections of cultural resources, and that are specifically directed at historic and prehistoric resource issues. These state statutes and regulations include:

- Mining activities on non-federal lands (i.e., private/fee or state lands) which are regulated under the WDEQ – LQD;
- Wind energy development activities which are regulated under the WDEQ – Industrial Siting Division; and

- Wind energy development activities on state lands that are regulated under the Wyoming Office of State Lands and Investment.

State regulation regarding cultural resources can be obtained from the specific state agency under which a specific activity is governed.

In addition, there are no state statutes or regulations protecting paleontological resources. Most state policies depend on federal policies and regulations to provide primary regulatory guidance on all cultural, historic and paleontological resources.

## Soils

### Federal

- The Clean Water Act of 1972 (CWA) provides a regulatory framework for soil resource management and protection on all forested lands. It requires each state to identify and implement best management practices to reduce nonpoint source pollution on all lands.
- Laws relating to the USFS that provide for soil resource management/protection:
  - Organic Administration Act of 1897
  - Multiple-Use Sustained Yield Act of 1960
  - Forest and Rangeland Renewable Resources Planning Act of 1974
  - National Forest Management Act of 1976
- BLM BFO RMP (BLM 2013a, 2014a)
- Section 501(b) of the Surface Mining Control and Reclamation Act of 1977, Part 823. These regulations pertain to highly reproductive soils that have been historically used as cropland, and specify revegetation requirements and special techniques for handling prime-farmland soils to ensure that the reconstructed soils are returned to a productivity level to that of surrounding unmined prime farmlands.

### State

- Wyoming Conservation Districts Law Title 11 (Wyoming Statute 11-16-101 et. seq.) addresses soil conserving land use practices.
- Best Management Practices (BMPs) generally related to other regulations or resources:

### Local

- *Campbell County, Wyoming: 2013 Comprehensive Plan (CCDPZ 2013)*
- Zoning Regulations
- Subdivision Regulations

## Vegetation

### Federal

- The following BLM guidelines, as they pertain to integrated vegetation management, can be accessed online (see BLM 2011).
  - BLM Land-Use Planning Handbook H-1601-1 (BLM 2005a)
  - Federal Land Policy and Management Act of 1976 (FLPMA)
  - Renewable Resource Improvement and Treatment Guidelines and Procedures Handbook H-1740-1 (BLM 1987)
  - Integrated Vegetation Management Handbook H-1740-2 (BLM 2008)
  - Monitoring Manual for Grassland, Shrubland & Savanna Ecosystems (BLM 2005b)
  - Sampling Vegetation Attributes (Cooperative Extension Service et al. 1996)
  - Inventory and Monitoring of Wildlife Habitat Assessing Big Sagebrush at Multiple Scales (Cooperrider et al. 1986, Homer et al. 2009, BLM 2012a)
  - Measuring and Monitoring Plant Populations - BLM Technical Reference 1730-1 (BLM 1998)
  - Interpreting Indicators of Rangeland Health assessment technique - BLM Technical Reference 1734-6 (BLM et al. 2005)
  - Multi-scale Big Sagebrush Assessment Technique - BLM Technical Note 417 (BLM 2005c)
  - BLM Programmatic Environmental Impact Statement Final Vegetation Treatments Using Herbicides in 13 Western States (BLM 2009a)
- USFS FSM 2200 – Range Management, Region 2 (USFS 2005)
- USFS FSM 2600 – Wildlife, Fish, and Sensitive Plant Habitat Management, Region 2 (USFS 2005b)
- USFS FSH 2209.13 – Grazing Permit Administration Handbook (1992b)

### State

- Wyoming Game and Fish Department (WGFD) Northeast Wyoming Sage-Grouse Conservation Plan (2006)

### Local

- Campbell County (CCDPZ 2014)

## Visual

### *Federal*

- BLM – Visual Resource Management (VRM) system (BLM 2014c). The VRM system provides a method to identify and evaluate scenic values to determine the appropriate levels of management by the BLM. It also provides methodology to analyze potential impacts to visual resources and apply visual design techniques so that surface-disturbing activities under the jurisdiction of the BLM better harmonize with their surroundings. Other federal agencies often utilize the VRM system for evaluation of visual effects of projects under their agencies’ jurisdiction.
- USFS – Scenery Management System (USFS 1995), with Visual Quality and Scenic Integrity Objectives. The USFS uses the objectives as a way to analyze the degree and acceptability of alteration associated with a proposed USFS-jurisdictional management activity, in terms of visual contrast with surrounding natural landscape.
- BLM BFO – RMP (BLM 1985) and Draft RMP Amendment (under review; BLM 2014d). The 1985 Buffalo RMP and subsequent amendments designates most of Campbell County as Class IV, which allows major modification to the existing landscape. The Draft RMP Amendment for the Buffalo Resource Area includes several alternative visual management plans under consideration by the BLM. All of the alternatives would continue to designate most of Campbell County as Class IV. Varying amounts of Class III (allowing moderate change) and Class II (managing for low change) designations are under consideration; these are generally associated with areas west of the Little Powder River in northeastern Campbell County, the Pumpkin Buttes, along Interstate-90, and the Fortification Creek Elk Area/Wilderness Study Area. Two alternatives under consideration would designate small areas of Class I (managing for no or very little change to the characteristic landscape) in the vicinity of the Fortification Creek Elk Area/Wilderness Study Area.
- USFS TBNG Land and RMP (USFS 2001). The TBNG Land and RMP has guidelines to manage activities within the TBNG to be consistent with the scenic integrity objectives that have been adopted by the Thunder Basin Management unit.

### *State*

- Wyoming Department of Transportation (WYDOT): Wyoming Scenic Byways and Backways Program (WYDOT 2009). The purpose of the program is to promote and enhance tourism and the appreciation of the state’s heritage along with the preservation, protection and enhancement of the state’s scenic, historic and cultural resources. There are currently no designated scenic byways or backways in Campbell County; however, nominations are regularly reviewed by WYDOT so it is possible that a highway segment in the county may be designated as scenic in the future.

## *Local*

- Zoning Regulations (CCDPZ 2011). The Campbell County Zoning Regulations address visual management throughout the regulations, including in the Wind Generation Overlay District, Master Sign Plan, Gateway Standards, Telecommunications Facilities, and residential and commercial development standards.
- Subdivision Regulations (CCDPZ 2010). The Campbell County Subdivision Regulations address visual resources through the design standards set forth in Section 12.

## *Water*

### *Federal*

#### Clean Water Act of 1972

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The CWA is enforced by the US Army Corps of Engineers (USACE) and the USEPA.

#### US Army Corps of Engineers

The USACE has regulatory authority under the CWA and the Rivers and Harbors Act of 1899. The purpose of these laws is to restore and maintain the chemical, physical, and biological integrity of waters of the United States. Section 404 of the CWA authorizes the USACE to regulate the discharge of dredged or fill material into waters. Contact information for the Wyoming - USACE is provided at USACE (2014).

#### US Environmental Protection Agency

The USEPA provides compliance assistance on a sector-by-sector basis in order to efficiently reach facilities with similar operations, processes or practices. Most business sectors are affected by a number of major environmental statutes and regulations. Contact information for the USEPA - Region 8 is provided at USEPA (2014h).

#### US Geological Survey (non-regulatory)

The US Geological Survey (USGS) provides hydrologic information and technical evaluations to appraise the quantity, quality, and movement of the Nation's surface water and ground-water resources. In Wyoming, the USGS is the principal federal agency for the collection of water-resources data. In cooperation with state and local agencies, the USGS operates and maintains statewide networks of surface water and groundwater monitoring sites (USGS 2014a).

#### Interstate Compacts

Additional water regulations are maintained under interstate agreements. Interstate compacts controlling the development and use of water in Campbell County are the Belle Fourche River Compact of 1943 and the Yellowstone River Compact of 1950.

## *State*

Wyoming has two primary regulatory bodies overseeing the state's water resources: Wyoming State Engineers Office (WSEO) and WDEQ.



### Wyoming State Engineers Office

The WESO's Surface Water and Engineering Division is responsible for reviewing applications to put surface water of the state to a beneficial use. Permits are issued for: 1) transporting water through a ditch or pipeline; 2) storage in reservoirs; 3) storage in smaller (under 20 acre-feet in capacity and a dam height less than 20 feet) reservoirs for stock water, wildlife, wetlands, and fish propagation; 4) enlargements to existing ditch or storage facilities; and 5) instream flow purposes. The Groundwater Division is responsible for issuing appropriations for all groundwater uses including stock and domestic wells.

### Wyoming Department of Environmental Quality

The WDEQ is responsible for monitoring, permitting, inspection, enforcement, and restoration/remediation activities related to ground and surface water. The WDEQ is responsible for enforcing state and federal environmental laws, including but not limited to: CWA, National Pollutant Discharge Elimination System, Resource Conservation and Recovery Act (1976), and the federal Surface Mining Reclamation and Control Act (1977).

### *Local*

#### Campbell County Conservation District

Conservation Districts are political subdivisions of the State of Wyoming. Each District is governed by a board of locally elected supervisors. The Campbell County Conservation District (CCCD) is responsible for providing leadership for the conservation of natural resources within Campbell County. The function of the CCCD is to coordinate technical, educational and financial resources to the meet the needs of the local land user.

### **Weeds, Pests, and Invasive Species**

#### *Federal*

Executive Order 13112 (1999), "Invasive Species", directs federal agencies to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause.

#### *State*

The Wyoming State Legislature enacted the Wyoming Weed and Pest Control Act in 1973 (Wyoming Statute [W.S.] 11-5-101 et seq.). This act established each Wyoming county as a Weed and Pest Control District.

The Wyoming Board of Agriculture, in conjunction with the Wyoming Weed and Pest Council, determines "Designated Noxious Weeds" (W.S. 11-5-102(a)(xi)) and "Designated Pests" (W.S. 11-5-102 (a)(xii)). These listings provide statewide legal authority to regulate and manage these species.

## Threatened, Endangered, and Special Status Species

### *Federal*

#### Endangered Species Act of 1973

The federal Endangered Species Act of 1973 (ESA; 16 USC 1531-1544 [1973]) provides protection for species of wildlife, fish, and plants that are designated as “endangered species” or “threatened species.” Section 3 (16 USC 1532) defines “species” as a species, subspecies, or distinct population segment of vertebrates. Section 4 (16 USC 1533 [1973]) provides for the listing of species as “endangered” or “threatened” through a rulemaking process. The two principal provisions of the ESA that accord regulatory protection to listed species are Sections 7 and 9 (16 USC 1536 [1973] and 16 USC 1538 [1973]). The ESA divides authority for enforcing these provisions between the Secretary of the Interior and the Secretary of Commerce, placing terrestrial and freshwater species under the jurisdiction of USFWS and most marine and anadromous fish species under the jurisdiction of the National Marine Fisheries Service. In Campbell County, only USFWS would be involved when addressing issues of compliance with Sections 7 and 9 of the ESA.

Section 9 and an implementing regulation (50 CFR 17.31 [1978]) prohibit “take” of endangered or threatened wildlife species by any person, public or private. “Take” is defined in ESA Section 3 as follows: “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to engage in such conduct.” USFWS has defined “harm” by regulation (50 CFR 17.4 [2001]) to be any act that “may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

Section 7 applies to federal agency actions, including the federal permitting, authorizing, or funding of actions by non-federal persons. It requires each federal agency to insure that its actions are “not likely to jeopardize the continued existence” of any listed species. It also imposes a second standard on any federal agency actions that may affect listed species’ “critical habitat” which USFWS designates by Section 4 rulemaking. Section 7 requires that the federal agency must insure as well that those actions are “not likely . . . to result in destruction or adverse modification of” critical habitat. It establishes a procedure for federal agencies to consult with the USFWS to determine whether their actions will or will not result in jeopardy or cause adverse modification.

Because some projects could result in “take” of a threatened or endangered species, and thus be subject to the ESA’s sanctions, Congress amended the ESA in 1982 to provide two mechanisms for authorizing “incidental take,” defined in section 10(a)(1)(B), as take resulting from an otherwise lawful activity (House of Representatives Report 97-835 1982). If the incidental take would occur as a result of a federal agency action, Section 7 authorizes the USFWS to issue to the agency an incidental take statement during the consultation process. The incidental take statement permits a prescribed amount of take of listed species caused by the action if the agency adopts reasonable and prudent measures that are recommended by USFWS to reduce the impact of the authorized takes. For any private activity that has no federal nexus (i.e., requires no federal authorization or funding), the USFWS, under Section 10, may issue to the landowner or proponent of the activity an incidental take permit also authorizing a prescribed amount of take

of listed species. To issue the permit, USFWS must find that the proponent has prepared, and is capable of implementing, a conservation plan (often called a habitat conservation plan [HCP]) for the affected species that will “to the maximum extent practicable, minimize and mitigate the impacts” of the authorized takes.

The USFWS publishes information about listing and reintroduction proposals in the Federal Register. To ensure that the public is aware of listing proposals, the USFWS also publishes press releases in area newspapers, and notifies government personnel at the federal, state, county, and municipal level, as well as local organizations. After publishing in the Federal Register, there is a 60-day public comment period, and a public hearing, if requested, must be held within 45 days of publication in the Federal Register. Campbell County can participate in the decision-making process by disseminating information about federal listing decisions to residents, and coordinating communication about additional species information and concerns to the USFWS during the comment period.

The 60-day public comment period for federal listing and reintroduction proposals is the opportunity for interested citizens and stake holders to provide comments or additional information regarding that proposal. Statements may also be submitted at public hearings, if held. Campbell County may gather pertinent information about species occurrence and potential impacts to industries, businesses, land use, and the local economy that could occur due to listing decisions. This pertinent information should be submitted to the USFWS during the public comment period for any listing decisions that affect residents and businesses in Campbell County. Campbell County should work with the USFWS to ensure that County-specific concerns and preferences are communicated and considered during the decision-making process. The USFWS is compelled by law to base listing decisions on the best available scientific and commercial (trade) data. As part of the listing decision process, the USFWS engages peer-reviewers and species experts to review the scientific accuracy of the listing decision (Nicholopoulos 1999).

The USFWS delisting process follows a process similar to listing; when available data indicate that recovery objectives have been met, a delisting proposal is published in the Federal Register, and the USFWS uses information and opinions from species experts, state wildlife agencies, and the public to make a decision about whether the species should be delisted (USFWS 2004). Campbell County can help with the delisting process by cooperating with state, federal, and other wildlife experts to collect information about plant and wildlife populations and their habitats.

Designation of critical habitat affects only federal agency actions or actions for which federal funding or permits are obtained. If an economic analysis indicates that critical habitat designation will cause substantial economic impact that outweighs benefits to the listed species, that area may be excluded from critical habitat, unless exclusion of that area could lead to extinction of the listed species (US Fish and Wildlife Service [USFWS] 2013a). Development projects may also be exempted from critical habitat restrictions via decision by a federal Cabinet-level committee, but this option has been used only three times since it was created in 1978 (USFWS 2013a). Designation of critical habitat does not require that state or private landowners consult with the USFWS for state or private actions, as long as there are no federal funding, permits, or other federal approvals (i.e., “federal nexus”) involved in the state or private action (USFWS

2011a, 2013b). Development and other actions on federal lands, and land use actions on non-federal lands that involve a federal nexus are required by federal law to consult with the USFWS to ensure that listed species will not be impacted by the action (USFWS 2011a). The USFWS and other federal and state agency personnel cannot conduct activities on private lands without permission.

Species reintroductions usually are labor-intensive and expensive, and the USFWS works with land owners to ensure that habitat will be conserved so that reintroductions are as successful as possible. Lands with economic or social values that are incompatible with sensitive species reintroductions would be unlikely to be good candidate areas for reintroduction, and Campbell County should work with regional, state, and federal partners to identify such areas.

Candidate Conservation Agreements (CCAs), CCAs with Assurances (CCAAs), Safe Harbor Agreements (SHA), and the Partners for Fish and Wildlife Program are voluntary programs developed by the USFWS to encourage species conservation on private or non-federal lands. Conservation banking is another system that facilitates species and habitat conservation; credits are created when property is protected and managed for the benefit of a species of interest, and parties can purchase credits to off-set impacts due to development or other actions (USFWS 2012). If a development or other land use activity is likely to result in take of a listed species, an HCP can be prepared that describes how risk will be reduced or minimized, and is required as part of an incidental take permit, but can also be prepared for candidate species (USFWS 2011b).

An important part of species recovery is providing or improving, and then protecting, habitat where population numbers can increase. The USFWS recognizes that cooperation with private landowners is essential for protecting and recovering listed species since about half of currently listed species have at least 80% of their habitat on private lands (USFWS 2009a). The voluntary USFWS programs (CCAs, CCAAs, SHAs, participation in the Partners for Fish and Wildlife Program, conservation banking, and HCPs) are intended to make it worthwhile for private and non-federal landowners to conserve habitat for listed species by providing monetary incentives and assurances. Such incentives include assurances that land use activities can be conducted even if they result in incidental take of listed species, options to sell mitigation credits, and funds to offset costs incurred from conservation actions. Campbell County should coordinate with the USFWS and WGFD to make information about federal and state wildlife conservation programs and incentives available to Campbell County residents.

Residents, businesses, and industries in Campbell County can participate in voluntary conservation programs at the federal, state, or local level. Information about participation in these programs and progress toward species conservation should be communicated with the USFWS during the public comment period in the case of a listing decision. Campbell County should coordinate with residents and communicate with the USFWS to ensure that County-specific concerns and preferences are considered during the decision-making process.

#### [Migratory Bird Treaty Act of 1918](#)

The Migratory Bird Treaty Act of 1918 (MBTA; 16 USC 703-711 [1918]), administered by the USFWS, makes it unlawful to pursue, hunt, take, capture, kill, attempt to take, capture or kill or possess, etc., any migratory bird or part, nest, or egg of any such bird listed in wildlife protection



treaties between the United States, Great Britain, Mexico, Japan, and Russia (the countries of the former Soviet Union). Nesting birds and nest contents are afforded protection when eggs or chicks are present in the nest pursuant to the MBTA. Unlike the federal ESA and the Bald and Golden Eagle Protection Act of 1940 (BGEPA), no permits are available to authorize take of birds subject to the MBTA. Most bird species that are resident or migratory in Campbell County are protected by the MBTA. The only bird species not protected by the MBTA are game species managed by the WGFD and non-native invasive species, such as rock pigeon, European starling, house sparrow, and Eurasian collared dove.

### Bureau of Land Management

The BFO has a list of sensitive species that may occur on BLM lands in their jurisdiction, including Campbell County (BLM 2014e). Species with BLM special status are listed on available sensitive species lists (BLM 2014e). These species may or may not receive any regulatory protection on BLM lands as part of a sensitive species designation.

BLM management actions are meant to maintain and enhance numbers of sensitive species, as well as their habitats. Development and other land use actions on BLM lands may be subject to surveys for plants and wildlife and impact reduction measures such as timing and date restrictions, disturbance buffers around biological resource features, restrictions on use or speed of vehicles, and other practices intended to protect sensitive species and their habitats. Post-action monitoring also may be required.

### US Forest Service

USFS managed lands are part of the TBNG. The TBNG is part of the USFS Region 2, and the Regional Forester designates a list of sensitive species for the region (USFS 2001). For actions on USFS managed lands, the USFS may require preparation of a biological evaluation that describes sensitive species that may be present and potential impacts to those species, with the goal of preventing impacts to sensitive species populations that may contribute to the need for federal listing.

## **Predators**

### ***Federal***

- Animal Damage Control Act of 1931 (7 USC 426-426c [1931]).
- Environmental Assessment (EA) for Predator Damage Management in Eastern Wyoming (USDA Animal and Plant Health Inspection Service [APHIS] 1998).
- USDA APHIS Wildlife Services. Contact Information: Wyoming Wildlife Services State Director, P.O. Box 59, Casper, WY 82602 Phone: (307) 261-5336 FAX: (307) 261-5996 Toll-Free Number: 1-866-4USDAWS Web site: [www.aphis.usda.gov/wildlife\\_damage](http://www.aphis.usda.gov/wildlife_damage).
- USFS TBNG Land and RMP (USFS 2001).
- USFS Black Hills National Forest 1997 Land and RMP Phase II Amendment (USFS 2005c).
- USDI BLM BFO RMP (BLM 2013a, 2014a).

## State

- W.S. Title 11 - Agriculture Livestock and Other Animals; Title 23 - Game and Fish.
- Wyoming Livestock Board 1934 Wyott Drive, Cheyenne, WY 82002 Phone: 307-777-7515.
- Wyoming Animal Damage Management Board, 2219 Carey Avenue, Cheyenne, WY 82002-0100. Phone: (307)-777-6781.
- WGFD damage control wardens. Phone: 1-800-842-1934.
- Wyoming Department of Agriculture, 2219 Carey Avenue, Cheyenne, WY 82002-0100 Phone: (307)-777-3121. Hotline to voice a complaint or concern: 1-800-413-0114.
- Wyoming Wildlife Services State, P.O. Box 59, Casper, WY 82602 Phone: (307)-261-5336.

## Local

- Campbell County Predator Management District, 5201 Tarry Street, Gillette, WY 82718. Phone: (308)-686-7003.

## Wildlife

### Federal

#### Bald and Golden Eagle Protection Act of 1940

The purpose of the BGEPA (16 USC 668–668d, as amended [1940]), administered by the USFWS, is to protect bald eagles and golden eagles, their nests, eggs, and parts. The BGEPA states that “no person shall take, possess, sell, purchase, barter, offer for sale, purchase or barter, transport, export, or import any bald or golden eagle alive or dead, or any part, nest or egg without a valid permit to do so”. The BGEPA also prohibits the “take” of bald and golden eagles unless pursuant to regulations. Take is defined by the BGEPA as an action “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.” Under the BGEPA, “disturb” means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: 1) injury to an eagle; 2) a decrease in productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. However, on September 11, 2009 (50 CFR 13 [1974] and 50 CFR 22 [1974]), the USFWS set in place rules establishing two new permit types: 1) individual permits that can be authorized in limited instances of disturbance and in certain situations where other forms of take may occur, such as human or eagle health and safety; and 2) programmatic permits that may authorize incidental take that occurs over a longer period of time or across a larger area (USFWS 2009b).

An applicant for a programmatic take permit will work with USFWS to develop “advanced conservation practices” to offset impacts to eagles. Considerations for issuing programmatic take permits include the health of the local and regional eagle populations, availability of suitable nesting and foraging habitat for any displaced eagles, and whether the take and associated mitigation provides a net benefit to eagles.





Bald and golden eagles occur year-round in Campbell County.

USFS FSM 2600 – Wildlife, Fish and Sensitive Plant Habitat Management Rocky Mountain Region (Region 2) will be adhered to where applicable (USFS 2005b).

## **State**

### Wyoming Game and Fish Department

Statewide and area specific fishing regulations are developed by the Wyoming Game and Fish Commission (WGFC). The *Wyoming Fishing Regulations 2021* brochure includes detailed information about the applicable fishing regulations in effect in the state, including species information, daily creed and possession limits, seasons, bait and other topics. There are no area specific regulations in effect in Campbell County. The current fishing regulations can be found at WGFD (2021).

Hunting regulations are also developed by the WGFC and are revised periodically. These regulations include information on species specific seasons, maps and other rules, as well as regulations for a number of non-species specific hunting activities. The current hunting regulations can be found at WGFD (2021).

Wyoming has regulations prohibiting unauthorized stocking of fish or fish eggs. Private citizens can only stock waters in Wyoming following a WGFD permitting system that includes review by the responsible regional fisheries supervisor.

### Office of State Lands and Investments

Chapter 13 of the Board of Land Commissioners' *Rules and Regulations* addresses the legal use of State Trust Lands for recreational purposes, including hunting and fishing. The public may access these properties "via public road, right of-way, or easement, via public waters, via adjacent state, local, or federal land if such land is open to public use, or via adjacent private land if permission to cross such land has been secured from the landowner." Violations of these *Rules and Regulations* will result in legal action on the part of the State. Chapter 13 can be accessed at State of Wyoming (2014a).

Chapter 14 of the *Rules and Regulations* provides authority and direction regarding the issuance of temporary use permits, including those for outfitters and guides, on State Trust Lands. Chapter 14 can be accessed at State of Wyoming (2014b).

## **Economics**

### **Federal**

#### Presidential Executive Order 12898

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low income Populations*, was issued by President Clinton in 1994. The purpose of the Executive Order was to focus attention on specific population groups as part of any federal level environmental analysis. The order directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on



minority and low-income populations, to the greatest extent practicable and permitted by law. The order directs each agency to develop a strategy for implementing environmental justice. The order is intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

The document *Environmental Justice, Guidance under the National Environmental Policy Act*, developed by the Council on Environmental Quality (CEQ), provides guidance on considering environmental justice during specific phases of the NEPA process, including scoping, development of alternatives, analysis and mitigation (CEQ 1997)

[US Forest Service Manual- Economic and Social Evaluation \(Chapter 1970\) and US Forest Service Economic and Social Analysis Handbook \(FSH 1909.17\)](#)

Together, the USFS Manual's Chapter 1970, *Economic and Social Evaluation* (USFS 2008), and the agency's *Economic and Social Analysis Handbook* (USFS [no date]) provide detailed guidance for incorporating economic and social data and evaluation into land use planning and decision-making. The manual sets forth the overall policies and objectives for evaluating economic efficiency and approaching economic impact analysis and social analysis, while the handbook delves into specific methodologies used for the analysis of each of those topics, as well as uses of analytical outcomes.

[Bureau of Land Management Land Use Planning Handbook \(H-1601-1\), Appendix D](#)

The BLM's *Land Use Planning Handbook* (BLM 2005) provides guidance to BLM employees for implementing the BLM land use planning requirements of the FLPMA. Appendix D of the Handbook, *Social Science Considerations in Land Use Planning Decisions*, "provides guidance on integrating social science information into the planning process"; that may include economic, political, cultural and social data. The appendix addresses data sources, data collection and management, environmental justice, analytic guidelines, public involvement and other related topics.

## *State of Wyoming*

[Office of State Lands and Investments](#)

Chapter 14 of the Board of Land Commissioners' *Rules and Regulations* (State of Wyoming 2014b) provides authority and direction regarding the issuance of temporary use permits, including those for construction activities, roadways, water wells and other uses, on State Trust Lands.

[Wyoming Department of Environmental Quality, Industrial Siting Division](#)

The Industrial Siting Division assesses socioeconomic and environmental impacts for companies planning major industrial developments before companies begin the construction permit process. Facilities that may be required to obtain a permit from the Industrial Siting Council include, but are not limited to, power plants, transmission lines, wind farms, landfills, waste incinerators, radioactive waste facilities, and other large-scale building projects. Chapter 1 of the Industrial

Siting Council's Rules and Regulations outlines the required information to be submitted as part of the permit application, including information on facility workforce and wages; an inventory of existing social and economic conditions in the project area (population, employment, housing, transportation, public facilities and services); a study of the social and economic impacts of the proposed facility, including land use changes; and an analysis of consistency with state, regional and local land use plans.

The Industrial Siting Council's Rules and Regulations documents can be accessed through the Division's website at <http://deq.wyoming.gov/isd/> or directly through the Wyoming Secretary of State's website at <http://soswy.state.wy.us/Rules/default.aspx>.

### *Local*

#### Campbell County Comprehensive Plan

Chapter Four of the *Campbell County, Wyoming: 2013 Comprehensive Plan* is focused on Economic Development within Campbell County (CCDPZ 2013). That plan includes the County's overall philosophy towards economic development, along with an evaluation of the County's economic strengths and weaknesses. Campbell County's stated economic development goals and objectives include the following:

- Support the activities of the Campbell County Economic Development Corporation (CCEDC) and the Northeast Wyoming Economic Development Council (NEWEDC), including the implementation of CCEDC's *Five Year Strategic Plan* (CCEDC [no date]) and NEWEDC's *Comprehensive Economic Development Strategy*<sup>21</sup>;
- Increase diversification of the local economy and promote economic growth in new employment sectors;
- Support core industries that are the economic backbone of Campbell County, including the coal industry and other existing industries;
- Maintain a business-friendly environment for new and existing economic endeavors;
- Continue emphasizing initiatives that improve the quality of life for Campbell County residents, including visual appearance of developments and quality of design.

The Comprehensive Plan provides guidance regarding the County's future development and can provide a wealth of input into land use decision making. From an economic standpoint, the Comprehensive Plan reiterates and confirms the County's stance towards encouraging further mineral extraction and energy development, along with the desire to develop new industries, in concert with maintaining or improving the quality of life for residents. This County perspective will be important to state and federal agencies faced with making short and long-term decisions that will impact the local economy and the lives of Campbell County citizens.

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<sup>21</sup> Referenced in CCDPZ 2013

### Campbell County Economic Development Corporation

The CCEDC's *Five Year Strategic Plan for Economic Development in Campbell County (2010 – 2015)* was developed to “establish direction for Campbell County’s short, medium and long-term economic development”. While the plan is not specifically a regulatory document, Campbell County and its Board of Campbell County Commissioners have adopted it as part of the economic development goals outlined in the County’s Comprehensive Plan. The goals of the CCEDC’s plan mirror many of those found in the Comprehensive Plan, including the encouragement of economic diversity, support for existing industries and desire for social improvements. As part of the plan, the CCDEC has developed a long list of specific actions to further those goals.

### Campbell County Zoning Regulations

While Campbell County’s zoning regulations do not apply to state and federal properties and would not be applicable to any development or activities occurring on those lands, the regulations would apply to any project related construction of facilities or use of properties outside of state or federal property boundaries. Therefore, state and federal agencies should consider the comprehensive requirements of any project occurring on public lands, including the need for, location of, and types of associated facilities that may be developed on private properties throughout the County. Zoning regulations protect the allowable uses of private property, as well as property values; adherence to those regulations will maintain an organized pattern of development in the County that is consistent with County policies and goals. Familiarity with County zoning regulations may be useful when developing certain mitigation strategies to minimize socioeconomic impacts.

## **Timber**

### *Federal*

#### Best Management Practices

National Best Management Practices (BMPs) for Water Quality Management on National Forest System Lands will be adhered to where applicable (USFS 2012).

USFS FSM 2400 – Timber Management Rocky Mountain Region (Region 2) will be adhered to where applicable (USFS 2003b).

#### Public Law 108-7

This law granted the BLM and the USFS 10-year authority to enter into stewardship contracts or agreements to achieve agency land management objectives and meet community needs. This represented an extension of the USFS's authority, expands authority to BLM, continues collaboration with state and local communities and tribes, and removes the requirement for project-level monitoring and "non-commercial" restrictions. The USFS now has 10-year stewardship contracts across the region to remove dead trees to restore forests and increase their resiliency. Additionally, the USFS has awarded several short-term stewardship contracts aimed at improving forest health and adding to local economies.

#### Wyoming Wildland Urban Interface Hazard Assessment

Currently, this is the principle wildland fire response plan for the state. It is produced by a joint venture of the Wyoming State Forestry Division (WSFD), USFS, BLM, National Park Service



(NPS), and other interested parties, with the BLM hosting the data (Wyoming Homeland Security 2011). This is a geographic information system-based mapping mission, a fire-hazard mapping program. The assessment maps fire hazard incorporating population density against slope, aspect, and fuels. With the mapping analysis evaluating areas of varying wildfire vulnerability, the final output will result in a Risk, Hazard, and Value map displaying areas of concern (red zones) for wildland fires.

#### Mini Fire Mobilization 2010 Plan (Mini-Mobe)

This document outlines areas of cooperation and coordination with respect to fire prevention, readiness, detection, fuels management, suppression, information sharing, communications, and reimbursement for shared resources. The “Mini-Mobe” was produced through a joint venture of the BLM; NPS, Intermountain Region; Bureau of Indian Affairs, Rocky Mountain Region; USFWS, Mountain Prairie Region; USDA, USFS Rocky Mountain and Intermountain Regions; and the Wyoming State Board of Land Commissioners, Office of State Lands and Investments, and WSFD. The overarching purpose of the Mini-Mobe is to document agreement and commitment to fire management assistance and cooperation between federal, state and local agencies entering into the agreement.

### **State**

#### Best Management Practices

WDEQ and WSFD BMPs will be adhered to where applicable. Timber shall be managed according to State of Wyoming and Federal Forestry BMPs. Silviculture (the growing and cultivation of trees to meet management objectives) BMPs address timber harvest and road building in order to control nonpoint source pollution of water. Surface water from forested watersheds is often used as a source of domestic public water supply. Subsurface water flow is important as it recharges the water table and is greatly impacted by timber harvesting. Implementation of BMPs has proven to be an effective way to minimize water quality degradation by controlling non-point source water pollution. These practices have the benefit of protecting other natural resources as well. Besides providing water to municipalities, watersheds are important because they: collect, store and filter rain and moderate snow melt; recharge groundwater aquifers; provide habitat for fish and wildlife; connect uplands headwaters with riparian and wetland areas; and provide clear, clean water to streams and lakes for recreation. Compliance with Wyoming’s silviculture BMPs is critical to protecting water quality during forest management activities. The ongoing pine beetle epidemics are likely to produce significant increases in water yield from many forested watersheds due to major reduction in live trees on the landscape. However, the resulting increased fuel loading and the potential for large, intense wildfires in the future poses a significant risk to water quality (WSFD 2006).

#### Governor’s Task Force on Forests

Campbell County recognizes that the well-being of Wyoming’s forests requires a coordinated approach to management and will therefore consider the findings of the Governor’s Task Force on Forests. Cognizant of the need to better understand the impacts that have resulted from the beetle epidemic and to identify collaborative solutions to some of the problems caused by those impacts, Wyoming Governor Matt Mead formed the Task Force on Forests in 2013. This effort will develop recommendations pertaining to all forests located within Wyoming, working with federal, state, and private landowners. The Task Force will develop near and long term strategies,

recommendations and measurable actions that the state (working with federal partners and private interests) can implement (University of Wyoming 2013).

### Living Snow Fences

The WSFD administers and contributes funds to the Living Snow Fence Program, a cooperative effort between WYDOT, WSFD, local conservation districts, and private landowners to implement windbreak plantings for the purpose of snow catchment along state highways.

## *Local*

### Campbell County Comprehensive Plan

Introducing commercial timber harvest will meet the plan's goal of increasing diversification of the local economy by supporting the development of Campbell County's resources.

### Community Forestry

Growing trees in Wyoming communities is difficult and requires commitment, expertise, and funding. This makes community forestry a high priority. Many communities lack expertise or funding and depend on the WSFD for assistance. There are areas around the towns of Gillette and Wright designated as high priority for community forestry (Figure B-2). Funding for tree management at the local level continues to increase. As local governments gain a better understanding of the benefits of community trees they allocate more staff and funding to care for their community forests. The community forestry grant program requires a local cash match which in turn has been a catalyst for local governments to create budget line items for community forestry management.



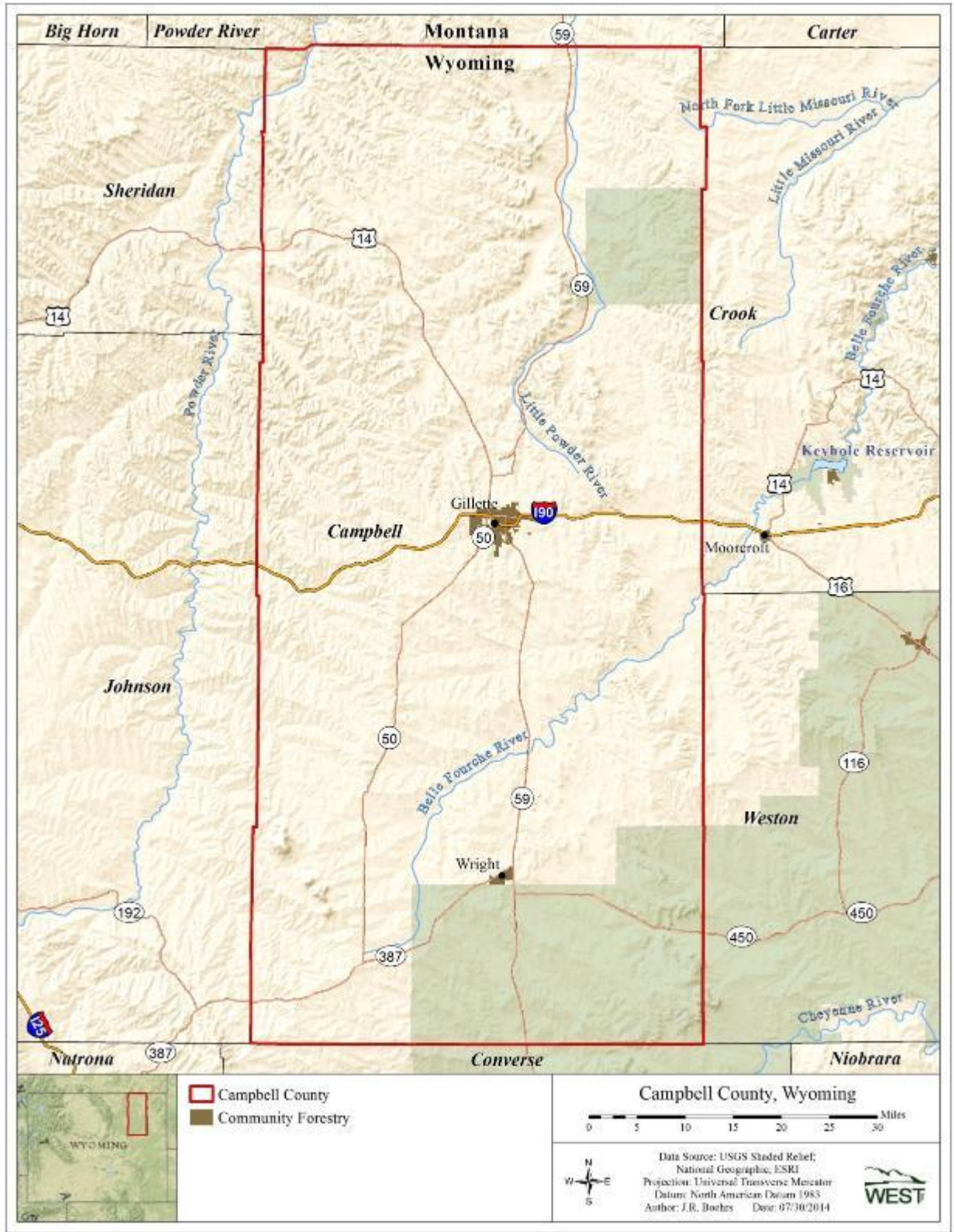


Figure B-2. High priority areas for community forestry in Campbell County, Wyoming.

### Arbor Day Foundation Tree City USA

The Arbor Day Foundation recognizes communities that achieve Tree City USA status. Gillette has been a Tree City USA town for 22 years, and Wright for 19 years. The benefits of this program include creating a foundation for tree care and expanding an innovative community tree program or project. Grants are available through this program.

## **Livestock and Grazing**

### *Federal*

#### Best Management Practices

National BMPs for grazing will be adhered to where applicable and when reasonable. The USEPA has developed BMPs for grazing operations in pasture and rangeland settings. These BMPs include managing methane production, managing nonpoint source pollution, managing animal feeding operation pollution, and controlled grazing and manure management (USEPA 2012e).

#### Taylor Grazing Act of 1934

This federal law provides the framework for federal oversight of grazing on public lands. The passage of the act eventually led to the formation of the BLM. Permits are granted under the law for federal grazing leases. A fee is associated with the lease and a limit is placed on the duration of the lease. Leases may be renewed (Holechek et al. 2004). Grazing leases on federal land in Campbell County fall under the purview of this act.

#### Public Rangelands Improvement Act of 1978

This federal law seeks to improve the conditions of the nation's rangelands through national rangeland inventories, federal management policies, and funding for rangeland improvement projects. This act amended the Wild Free-Roaming Horses and Burros Act of 1971 to reduce cost in the administration of the act and to improve methods of dealing with excessive numbers of wild horses or burros on rangelands. The act also amended the FLPMA to require district advisory councils for the Secretary of the Interior. This law impacts the BLM and the USFS (Public Rangelands Improvement Act 1978).

### *State*

#### Best Management Practices

The BMPs for livestock grazing will be adhered to where applicable. The WDEQ Livestock/Wildlife Best Management Practice Manual from 2013 can be used as a resource for BMP information and to determine which BMPs are eligible for funding under the Section 319 grant program. BMPs in the manual have been developed to prevent, reduce, or eliminate pollution to Wyoming's water resources (WDEQ 2013). The manual contains both general and specific information pertaining to BMPs. BMPs found in the manual relate to water sources and shading, range and pasture planting, manure management, fencing, access roads, riparian buffers and many others (WDEQ 2013).

#### Wyoming Statutes Title 11 – Agriculture, Livestock and Other Animals

A series of chapters comprise the Wyoming State Statutes pertaining to grazing and livestock. The statutes include guidance related to many livestock and grazing related issues including



control of predatory animals, weed and pest control, protection of livestock, livestock districts, and many others.

#### Wyoming Pollution Discharge Elimination System Program

Appropriate Wyoming Pollution Discharge Elimination System permits will be secured where applicable. The CWA requires permits be secured for any point-source discharge of a pollutant in Wyoming into a Water of the United States. These permits specify the limitations and conditions of the discharge. Concentrated Animal Feeding Operations (CAFO) is an operation with more than 1,000 animal units confined on site for more than 45 days during the year. An animal unit is defined as an animal equivalent of 1,000 pounds live weight, and equates to 1,000 head of beef cattle, 700 dairy cows, 2,500 swine weighing more than 55 pounds, 125,000 broiler chickens or 82,000 laying hens or pullets. An operation may be classified as a CAFO if the operation negatively impacts the Waters of the State (WDEQ 2014a). Permits for CAFOs can be secured by contacting the WDEQ. Multiple regulatory programs are associated with the permitting process resulting in the need for applicants to secure a permit from each program. Contacts for permitting vary by region. Online resources exist that provide information on the permitting process and links to permit personnel (WDEQ 2014a).

#### *Local*

##### Campbell County Comprehensive Plan

The Plan is blueprint for how Campbell County should physically develop between 2013 and 2033 (CCDPZ 2013). The plan identifies many issues of concern that are associated with grazing and the livestock industry, including reduced private property rights and impacts of future development to agriculture. The plan asserts that Campbell County will work to balance regulations that serve to guide future land use and development with private property rights. The plan contends that Campbell County will work to promote the continuation of ranching and agriculture in Campbell County, including the review of County subdivision regulations to make sure that ranch lands and open spaces are retained (CCDPZ 2013).

##### Campbell County Zoning Regulations

Campbell County zoning regulations are designed to allow individuals to easily determine what regulations pertain to a given parcel of land in Campbell County. The Agriculture Zoning District (A-L) in Campbell County allows for crop production, livestock production, commercial agricultural uses, and other similar land uses. Special regulations pertain to specific individual land uses (CCDPZ 2010).

##### Subdivision Regulations

One of the goals of the Comprehensive Plan is to promote the continuation of ranching and the maintenance of open space. Specific subdivision regulations can be found in the Campbell County Subdivision Regulations (CCDPZ 2010).

## Mineral Resources

### *Federal*

#### Bureau of Land Management

The NEPA calls for federal, state, and local governments to cooperate with the goal of achieving productive harmony between humans and their environment. Federal agencies may allow other governments and agencies to cooperate in the production of environmental impact statements (EISs). The USDI requires that every USDI agency offers cooperating agency status to eligible partners for all EISs and for EAs as well. The BLM's position on Cooperating Agencies may be accessed at BLM (2013b).

The primary mineral resources that are extracted in Campbell County are coal, crude oil, and natural gas. The majority of these mineral resources occur on lands managed by the federal government, primarily the BLM. In some cases, the BLM manages both the surface and the subsurface minerals and in other cases, the BLM manages only the subsurface minerals. Lands in this later condition are termed "split estate."

Split-estate ownership has at times been a contentious issue in the recent coalbed natural gas development. While approximately 12% of the surface is owned by the federal government, over 70% of the minerals under the surface are federally owned. The BLM approves the leasing and development of these federal minerals through a lengthy permitting and regulatory process. Through the Record of Decision and RMP Amendments for the Powder River Basin Oil & Gas RMP Amendment (BLM 2003), the BLM gained regulatory authority on the private surface land over federal minerals through the following language "In order to meet the consistency requirements of FLPMA [Federal Land Policy and Management Act], the same standards used for environmental protection of federal surface are also applied to the federal mineral portion of split-estate lands. The impacts to surface resources and surface uses from BLM-authorized mineral development must be considered not only on BLM administered public lands but also on split-estate lands." Since Wyoming law makes the mineral estate the dominant estate, private surface owners find themselves faced with allowing federal actions such as wildlife and cultural studies on their private lands, or face the possible threat of condemnation by companies. However, the BLM is required to work with both the surface owner and the proposed mineral developer to reduce impacts on private lands.

All mining and oil and gas projects involving BLM surface or split-estate lands will be subject to review under NEPA. Smaller projects may be approved through an EA; larger projects will be approved through an EIS. Campbell County can comment on an EA and can have a more active role as a Cooperating Agency when an EIS is prepared.

USFS FSM 2800 – Mineral and Geology Rocky Mountain Region (Region 2) will be adhered to where applicable (USFS 1997).

## *State*

### Wyoming Department of Environmental Quality-Land Quality Division

All mining in Wyoming is permitted by the LQD with oversight by the US Office of Surface Mining Reclamation and Enforcement for surface coal mines.

Guidelines and Standard Operating Procedures for information required in applications to mine can be accessed at WDEQ (2014c).

Guideline 6 “Organization and Topic Guideline for an Application for a “Permit to Mine” or an “Amendment” for non-coal operations specifies that the permit application be placed in the office of the County Clerk for the County in which their operation is located for public review. In addition, public notification of the pending permit action must be published in a newspaper of general circulation in the area. This guideline specifies that proof of notification be sent to all surface property owners in the permit area, all adjacent surface owners, and all surface owners within a half-mile of the proposed mine site (WDEQ 2003).

Standard Operating Procedure (SOP) No. 1.9 specifies that every application for a new coal mine permit or for an amendment, renewal, transfer, or major revision of an existing permit that is sent to public notice must file a copy of their application with the County Clerk for the county in which their operation is located. The applicant must have published in a newspaper of general circulation notice of that filing in the County Clerk’s office. In addition to the applicant’s filing requirements, the LQD will send separate notification to the Board of Campbell County Commissioners and Planners.

### Wyoming Oil and Gas Conservation Commission

The Wyoming Oil and Gas Conservation Commission (WOGCC) issues state-wide rules and regulations to govern the development of oil and gas in Wyoming. Current WOGCC rules and regulations can be accessed through the references below or through the *Rules/Statutes* page on the WOGCC’s website (WOGCC 2014a). These rules and regulations apply to the drilling and mining of private, state, and federally owned minerals. The intent of WOGCC rules and regulations are to prevent waste and to conserve mineral resources, as well as to protect human health and the environment. This is accomplished through designating extraction methods that are designed to avoid soil or water contamination at drilling or producing locations. The WOGCC website contains numerous links to various, voluminous data sets and permitting guidelines. In general, applicants who wish to develop oil and/or natural gas in Wyoming must submit an Application to Drill (APD) to the WOGCC. Guidance to the information requirements to complete an APD can be accessed at WOGCC (2014b).

Separate WOGCC forms must be included in each APD that document agreements with surface owner(s). If the proposed project is on BLM lands, including split-estate lands, the applicant must also submit a separate APD to the BLM, using BLM forms.

More information is available on the WOGCC website (WOGCC 2014c). In order to stay abreast of current oil and gas activity, or to review past activity, frequent visits to this website would be prudent.

Specific information by county can be accessed at WOGCC (2014d).

## Outdoor Recreation

### *Federal*

#### Land and Water Conservation Fund Act of 1965

The Land and Water Conservation Fund provides certain monies and matching grants to federal, state and local agencies for a number of purposes, including the development of public outdoor recreation areas and the general protection of natural resources. In part, funds can be used for the acquisition of land and water resources, as well as for creating easements on land or water. Recreation planning activities can be funded under the act. The State of Wyoming must meet certain requirements in order to acquire fund monies, including the development of a statewide comprehensive outdoor recreation plan (SCORP); Wyoming's plan is discussed under the discussion of state level regulations for recreation.

Information about the act can be found in a number of places, including Fed Law (2014).

#### Bureau of Land Management Land Use Planning Handbook (H-1601-1), Appendix C

The BLM's *Land Use Planning Handbook* provides guidance to BLM employees for implementing the BLM land use planning requirements of the FLPMA (BLM 2005a). Appendix C of the Handbook, *Program-Specific and Resource-Specific Decision Guidance*, includes guidance on recreation and visitor services and comprehensive trails and travel management. Identification of Special Resource Management Areas and Extensive Recreation Management Areas are discussed, along with recreation management, marketing, monitoring and administration. The boundaries and development of travel management areas and off-highway vehicle management areas are addressed.

The entire BLM Land Use Planning Handbook, including Appendix C, can be found at BLM (2005a).

#### Bureau of Land Management Recreation Strategy 2014-2019

The BLM's Recreation Strategy: Connecting with Communities was developed by the Recreation and Visitor Services Program. The purpose of the strategy is to "align the resources of the BLM's Recreation and Visitor Services Program with the desired outcomes of local communities, businesses, and other service providers (as consistent with federal law and policy) to deliver as many benefits as possible to the recreating public." The strategy emphasizes customer service, collaborative planning with local jurisdictions and promotes social and economic benefits to local communities. It addresses communication and outreach goals.

The Recreation Strategy can be found at BLM (2014g).

USFS FSM 2300 – Recreation, Wilderness, and Related Resource Management Rocky Mountain Region (Region 2) will be adhered to where applicable (USFS 1994a).

## State

### Wyoming Game and Fish Department

Statewide and area specific fishing regulations are developed by the WGFC. The *Wyoming Fishing Regulations 2014-2015* brochure includes detailed information about the applicable fishing regulations in effect in the state, including species information, daily creed and possession limits, seasons, bait and other topics (WGFD 2014). There are no area specific regulations in effect in Campbell County. The 2014-2015 fishing regulations can be found at WGFC (2014).

Hunting regulations are developed by the WGFC and are revised periodically. These regulations include information on species specific seasons, maps and other rules, as well as regulations for a number of non-species specific hunting activities. The 2013 hunting regulations can be found at WGFD (2013).

### Office of State Lands and Investments

Chapter 13 of the Board of Land Commissioners' *Rules and Regulations* addresses the legal use of State Trust Lands for recreational purposes, including hunting and fishing. The public may access these properties "via public road, right of-way, or easement, via public waters, via adjacent state, local, or federal land if such land is open to public use, or via adjacent private land if permission to cross such land has been secured from the landowner." Violations of these *Rules and Regulations* will result in legal action on the part of the state. Chapter 13 can be accessed at State of Wyoming (2014a).

Chapter 14 of the *Rules and Regulations* provides authority and direction regarding the issuance of temporary use permits, including those for outfitters and guides, on State Trust Lands. Chapter 14 can be accessed at State of Wyoming (2014b).

### Wyoming Department of State Parks and Cultural Resources

The Department's *Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2014-2019* "serves as a guide for local, state and federal agencies in the development and provision of future outdoor recreation opportunities" (Wyoming State Parks, Historic Sites and Trails 2014a). One of the main purposes of the Plan is to "guide the recreation industry in Wyoming, while protecting and enhancing Wyoming's natural resources." It was developed as a Plan that would identify and begin to address outdoor recreational needs on a statewide level, which would in turn provide guidance for local level actions. Authority for the SCORP comes from the Land and Water Conservation Fund (LWCF) Act of 1965, whose purpose is to assist in developing outdoor recreation resources, in part by providing funds to individual states to use in various ways. Since 1966, Campbell County has received over \$1.36 million of LWCF monies. The Plan includes a number of goals and objectives regarding land use management in relation to recreational use, facility needs and funding concerns and opportunities.

The *SCORP* can be found at Wyoming State Parks, Historic Sites and Trails (2014a).

## *Local*

### Campbell County Comprehensive Plan

The *Campbell County, Wyoming: 2013 Comprehensive Plan* does not identify or discuss any specific goals or objectives for recreational activities or opportunities in the County. However, the discussion of the plan's Vision Statement includes recreation as an important factor in the development of the County. The plan acknowledges that recreational opportunities "contribute to a strong sense of community and place." The Comprehensive Plan can be found at CCDPZ (2013).

## **Transportation and Rights-of-Ways**

### *Federal*

- National
  - Federal Highway Administration (FHA) Transportation Research Board (TRB): TRB Committee ADA40, Transportation Needs of National Parks and Public Lands (ADA40).
    - ADA40 TRB Page & Information Resource Center (TRB 2014a)
    - Transportation Research Board (TRB 2014b)
  - US Department of Transportation FHA (FHA 2014)
  - USDI BLM (BLM 2014f)
  - National Association of Counties (2014)
- Federal Agencies (local) (i.e., Specific BLM RMP, NPS Park Planning)
  - USDI BLM Wyoming (BLM 2014a)
- USFS FSM 7700 – Transportation System Rocky Mountain Region (Region 2) will be adhered to where applicable (USFS 1994b).

### *State*

- WYDOT
  - General WYDOT (2014)
  - *WYDOT County Road Fund Manual: State and Local Programs* (WYDOT 2011)
- Wyoming State Parks, Historic Sites and Trails (2014b)
- Wyoming Department of Environmental Quality (WDEQ 2014d)

### *Local*

- *Campbell County, Wyoming: 2013 Comprehensive Plan* (CCDPZ 2013)
- *Campbell County Zoning and Land Use Regulations*, May 2011 (CCDPZ 2011).

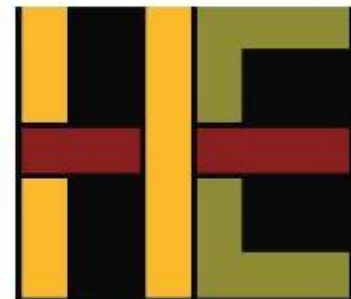


## COLLABORATIVE EFFORT WITH:



Environmental  
& Statistical  
Consultants

Clark Mining Services, LLC



Harvey Economics



**PENCE**  
**MACMILLAN** *and* **LLC**

Collaboration. Perspective. Experience.

—Attorneys at Law—



**Attachment #18**  
**Converse County Natural Resource Management Plan dated July 5, 2022**



JULY 5, 2022

# Converse County Natural Resource Management Plan



Natural Resource Management Plan  
Y2 Consultants, LLC | Falen Law Offices | DRU Consulting

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**CONTENTS**

**LIST OF FIGURES ..... III**

**LIST OF TABLES ..... IV**

**CHAPTER 1: INTRODUCTION ..... 5**

    1.1 PURPOSE ..... 5

    1.2 CONVERSE COUNTY NATURAL RESOURCE MANAGEMENT PLAN PROCESS..... 10

    1.3 CREDIBLE DATA ..... 14

**CHAPTER 2: CONVERSE COUNTY CUSTOM AND CULTURE..... 17**

    2.1 COUNTY OVERVIEW ..... 17

    2.2 CULTURAL, HISTORICAL, & PALEONTOLOGICAL RESOURCES..... 21

**CHAPTER 3: LAND USE ..... 26**

    3.1 LAND USE ..... 26

    3.2 TRANSPORTATION AND LAND ACCESS ..... 34

    3.3 SPECIAL DESIGNATION AND MANAGEMENT AREAS..... 40

    3.4 WILDFIRE MANAGEMENT ..... 46

    3.5 FOREST, GRASSLAND, AND RANGELAND MANAGEMENT ..... 52

    3.6 LAND EXCHANGES ..... 59

**CHAPTER 4: GEOLOGY, SOILS, MINING, ENERGY DEVELOPMENT, AIR, AND CLIMATE ..... 64**

    4.1 GEOLOGY OVERVIEW ..... 64

    4.2 SOILS ..... 67

    4.3 MINING AND MINERAL RESOURCES ..... 70

    4.4 ENERGY RESOURCES ..... 78

    4.5 AIR QUALITY..... 90

    4.6 CLIMATE CHANGE ..... 93

**CHAPTER 5: WATER RESOURCES..... 95**

    5.1 OVERVIEW ..... 95

    5.2 IRRIGATION AND RELATED INFRASTRUCTURE ..... 98

    5.3 DAMS AND RESERVOIRS ..... 101

    5.4 WATER RIGHTS ..... 102

    5.5 WATER QUALITY ..... 105

    5.6 FLOOD PLAINS..... 109

    5.7 RIVERS AND STREAMS ..... 110

    5.8 WETLANDS AND RIPARIAN AREAS..... 112

**CHAPTER 6: WILDLIFE AND FISHERIES RESOURCES ..... 115**

    6.1 WILDLIFE MANAGEMENT AGENCIES..... 115



6.2 WILDLIFE HABITAT MANAGEMENT AGENCIES .....	117
<b>6.3 WILDLIFE.....</b>	<b>118</b>
<b>6.4 THREATENED/ENDANGERED/SENSITIVE SPECIES.....</b>	<b>130</b>
<b>6.5 FISHERIES.....</b>	<b>136</b>
<b>6.6 WILD HORSES AND ESTRAY LIVESTOCK.....</b>	<b>138</b>
<b>CHAPTER 7: ECONOMICS &amp; SOCIETY.....</b>	<b>141</b>
7.1 TOURISM AND RECREATION ON FEDERAL LANDS .....	141
7.2 LAW ENFORCEMENT AND EMERGENCY MANAGEMENT .....	143
7.3 ECONOMIC AND SOCIOECONOMIC CONSIDERATIONS .....	146
<b>CHAPTER 8: AGRICULTURE RESOURCES .....</b>	<b>151</b>
8.1 AGRICULTURAL PRODUCTION .....	151
8.2 LIVESTOCK GRAZING .....	153
8.3 PREDATOR CONTROL .....	160
8.4 NOXIOUS WEEDS, INVASIVE SPECIES, AND PESTS .....	163
<b>REFERENCES .....</b>	<b>168</b>
<b>ACRONYMS .....</b>	<b>177</b>
<b>APPENDIX A: WEBSITE LINKS .....</b>	<b>181</b>
<b>APPENDIX B: STEERING COMMITTEE MEMBERS .....</b>	<b>183</b>
<b>APPENDIX C: CONVERSE COUNTY 2018 SOCIOECONOMIC STUDY.....</b>	<b>190</b>



## LIST OF FIGURES

Figure 1. Converse County Natural Resource Management Plan Area. ....	18
Figure 2. Converse County surface management.....	32
Figure 4. Fire history of Converse County. ....	49
Figure 5. Converse County geologic formations.....	65
Figure 6. Converse County geologic formation legend.....	66
Figure 7. Soils mapped for Converse County (refer to legend below). ....	68
Figure 8. Soils map legend for Converse County. ....	69
Figure 9. Federal mineral ownership in Converse County.....	76
Figure 10. Oil and gas production in Converse County from 1980 to 2020. ....	79
Figure 11: State of Wyoming Oil Production Trends (1978-2020). (WOGCC, n.d.-a).....	79
Figure 12: State of Wyoming Gas Production Trends (1978-2020). (WOGCC, n.d.-b) .....	80
Figure 13: Wind resource map for the State of Wyoming.....	87
Figure 14. Converse County watersheds.....	97
Figure 15. Wyoming State Geologic Survey (WSGS) map of the Wyoming River Basin Plan divisions. (Wyoming State Geologic Survey, 2020) .....	98
Figure 16. Elk seasonal habitat in Converse County (WGFD, 2018).....	124
Figure 17. Mule deer seasonal habitat in Converse County (WGFD, 2018).....	125
Figure 18. Pronghorn seasonal habitat in Converse County (WGFD, 2016). ....	126
Figure 19. White-tail deer seasonal habitat in Converse County (WGFD, 2016). ....	127
Figure 20. Greater sage-grouse mapped core area within Converse County (BLM, 2015).....	128
Figure 21. Converse County grazing allotments on USFS and BLM lands.....	158



## LIST OF TABLES

Table 1. National Register Historic Sites located within Converse County. ....	23
Table 2. Fire occurrences over 100 acres in Converse County from 2000 to 2020.....	47
Table 3: Wind Energy developments within Converse County.....	88





# CHAPTER 1: INTRODUCTION

## 1.1 PURPOSE

### 1.1.1 Natural Resource Management Plan

A Natural Resource Management Plan (NRMP) is a document prepared and adopted by a local government that federal agencies are required to review and consider when making decisions that may affect the local area. Locally elected governments and elected officials have far ranging and important responsibilities to their constituents, described by state statute as protecting their “health, safety and welfare.” That responsibility includes specifically interacting with federal agencies on all federal issues impacting the local community and counties. Rural counties’ socioeconomic well-being, health, safety, and culture can be strongly impacted by the management of the surrounding federal and public lands. To give the locally elected government the strongest voice it can have during “government-to-government” interaction, local governments can formally adopt “local land use plans” (LUPs) or NRMPs. These plans establish local policy regarding the use and management of federal lands in their jurisdiction and can influence the development and implementation of federal policies, programs and other types of federal decision-making regarding federal lands that affect a local community. NRMPs are intended to help protect the local citizens’ use of, and access to, federal and public lands and resources and to ensure the socioeconomic well-being, culture, and customs of a local community are adequately considered in federal decisions (Budd-Falen, 2018).

The Converse County Natural Resource Management Plan serves as a basis for communicating and coordinating with the federal government and its agencies on land and natural resource management issues. Counties are particularly well-suited to understand the impacts that federal land management decisions may have on the local economy, custom and culture. Under Wyoming statute, a County is deemed to have special expertise on all subject matters for which it has statutory responsibility, including but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture and socio-economic viability of a County (Wyo. Statute 18-5-208(a)).

These local NRMPs are not zoning and do not regulate the use of private lands. When people think of LUPs, they typically think of the general planning document that counties use to determine zoning on private lands. A NRMP is a separate type of land use plan prepared by rural counties and conservation districts, containing policies relating to the management of federal and public land in the County and reflecting the local government’s position on federal decisions concerning those lands (Budd-Falen, 2018).

Local governments do not have jurisdiction over the federal government or federal land. NRMPs cannot require federal agencies to take specific actions. However, federal agencies and departments are mandated by various federal statutes to engage local governments during the decision-making process on federal plans, policies, and programs that will impact the management of land and natural resources within a community and ultimately affect the local tax base and lives of local citizens. Federal agencies are required to coordinate and consult with local governments and to give meaningful consideration to policies asserted in written plans



prepared and adopted by local governments concerning management of federal lands in their area (Budd-Falen, 2018).

### 1.1.2 Statutory Requirements and Legal Framework

Federal agencies are required to identify and analyze the impacts to local economies and community culture when making decisions. NRMPs outline the present economic and cultural conditions and desired future conditions of a local community and demonstrate how those conditions are tied to activities on adjoining federal and public lands. The NRMP establishes the local government’s preferred policies for the planned use, management, protection, and preservation of the natural resources on the federal and public lands within its jurisdiction. The goal is to protect private property, the local tax base, and local custom and culture. An adopted NRMP is a critical tool that allows a local government to have a substantive impact on federal decisions, plans, policies, and programs. A written plan can play a key role in the success of a local government engaging the federal government (Budd-Falen, 2018).

Required engagement between federal agencies and local governments takes the form of “consistency review” under the National Environmental Policy Act (NEPA) and the Federal Lands Policy and Management Act (FLPMA), the requirement for “coordination” under both FLPMA and the National Forest Management Act (NFMA) and engaging local governments acting as a “cooperating agency” under NEPA, and a State Governor’s consistency review process.

#### *The National Environmental Policy Act*

The National Environmental Policy Act (NEPA) applies to “every major Federal action significantly affecting the quality of the human environment” (42 U.S.C. § 4332(2)(C)). The courts have interpreted this to mean that every time the federal government makes a decision for most actions that may have an environmental impact, NEPA compliance is required. Some courts have even required agencies to follow NEPA when the agency spends a small amount of money on a project or program when they are not the lead agency. (See *e.g.*, *Citizens Alert Regarding the Environment v. United States Environmental Protection Agency*, 259 F. Supp.2d 9, 20 (D.D.C. 2003)). On July 15, 2020 the Council on Environmental Quality (CEQ) announced major regulation reforms to NEPA, including new rules trying to clarify what is a “major federal action.” (See 85 F.R. 43304 (July 16, 2020)). The CEQ regulations define a “Major Federal Action” as “an activity or decision subject to Federal control and responsibility” (40 C.F.R. § 1508.1(q)). However, those activities and decisions are limited to those decisions that are discretionary or in which the federal government has sufficient control and responsibility over the outcome of the project. This means that those projects that the government has a minor role in are not included. Further, minor actions that do not typically have a significant effect on the human environment (such as allowing certain range improvements on a grazing allotment) are categorically exempt from NEPA (40 C.F.R. § 1508.1(d)).

NEPA requires that agencies undertake an environmental analysis to determine whether a federal action has the potential to cause significant environmental effects. If a proposed action has been classified by an agencies’ procedures as a categorical exclusion (CE) because it does not individually or cumulatively have a significant effect on the human environment, then no further



environmental analysis is needed (40 C.F.R. § 1501.1). If a CE does not apply to a proposed action, then the federal agency must prepare an Environmental Assessment (EA) to determine whether the proposed action will have a significant impact on the quality of the human environment. If a proposed major federal action is determined to significantly affect the quality of the human environment, federal agencies are required to prepare an Environmental Impact Statement (EIS). The regulatory requirements for an EIS are more detailed and rigorous than the requirements for an EA.

There are several ways local governments can participate in the NEPA process depending on the level of analysis, type of federal decision, level of commitment of the local government, and the goals of the local government. First, local governments can use these plans as part of the federal agency's "consistency review" process. Under this provision, if the federal agency receives a local plan while writing an EIS or EA, NEPA commands the federal agency to "discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the [environmental impact] statement should describe the extent to which the [federal] agency would reconcile its proposed action with the [local government] plan or law" (40 C.F.R. §§ 1506.2, 1506.2(d)). For local governments to take advantage of consistency review requirements, a written and adopted local NRMP is required. With a written NRMP, this analysis happens even when the local government does not request consistency review for the pending decision or action if the NRMP was provided in advance to the reviewing federal agency.

NEPA requires that copies of comments from state or local governments accompany the EIS or EA throughout the review process (42 U.S.C. § 4332(2)(c)). As there is no requirement for federal agencies to discuss the inconsistencies of a proposed action with comments from state or local governments, written comments submitted by a local government not tied to a formally adopted NRMP require less rigorous analysis than those tied to an adopted NRMP.

Local governments can participate in the NEPA process as a "cooperating agency" (40 C.F.R. § 1508.5), an action separate from NRMP consistency review. If a local government believes that a proposed federal action will impact the local government, and the local government wants to be involved in the analysis and decision-making process at its inception, the government may request "cooperating agency status" to the deciding federal agency. "Cooperating agency status" allows local governments to work with federal agencies throughout the development of a federal plan or proposal, including before public feedback is solicited. It does not require a written NRMP prepared by local governments. Should a local government request cooperating agency status for a particular agency proposed action (for example, the designation of critical habitat for a listed threatened or endangered species), the local government can, at the request of the lead agency, participate in drafting portions of the relevant NEPA document (40 C.F.R. § 1501.6(b)(3)). This can involve identifying appropriate scientific data, assisting with alternative development for the proposed federal action, and ensuring that the discussion of impacts to the local economy or the local citizens is accurate. A NRMP, while not required, can aid this analysis. Cooperating agency status can be reserved for more significant federal decisions likely to have a larger impact on a community and is not required for every federal action.



Pursuant to NEPA, an applicant for cooperating agency status must be a locally elected body such as a conservation district, board of supervisors, or a County commission; and possess “special expertise.” A local government’s special expertise is defined as the authority granted to a local governing body by state statute.

Participation in federal processes as a cooperating agency can be expensive, time consuming, and cumbersome and may be particularly challenging for communities with limited resources. A NRMP ensures that the federal agency addresses the County’s policies for virtually every federal decision without the burden of cooperating agency status.

### ***The National Forest Management Act***

The National Forest Management Act (NFMA) governs the U.S. Forest Service (USFS) and requires the agency to “coordinate”. The NFMA requirements are as follows:

*[T]he Secretary of Agriculture shall develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management planning processes of State and local governments and other Federal agencies (16 U.S.C. § 1604(a)).*

The fact that the USFS is directed to “coordinate” with local governments implies, by its plain meaning, that the USFS must engage in a process that involves more than simply “considering” the plans and policies of local governments; it must attempt to achieve compatibility between USFS plans and local land use plans. Additionally, the Forest Service is mandated to “engage the public, including State and local governments early throughout the planning process.” 36 C.F.R. § 219.4(a)(1).

The USFS is also obligated to perform a consistency review. For development of forest plans, the forest Service shall review the planning and land use policies of State and local governments where relevant to the plan area. The results of the review shall be displayed in the EIS. 36 C.F.R. 219.4(b)(2). Such review of the plans and policies of State and local governments shall include consideration of:

- (1) The objectives as expressed in local plans and policies
- (2) The compatibility and interrelated impacts of these plans and policies
- (3) Opportunities to address impacts identified and to contribute to joint objectives
- (4) Opportunities to reduce or resolve conflicts, within the context of developing desired future conditions. 36 C.F.R. § 219.4(b)(2)(i) – (iv).

Additionally, the USFS is obligated to consider and provide for "community stability" in its decision-making processes. S. Rept. No. 105.22; 30 Cong. Rec. 984 (1897); *The Use Book* at 17; see also 36 C.F.R. § 219.6(b)(6) (“The Forest Service land use plan must provide for social, economic, and cultural sustainability”). "Community stability" is defined as a combination of local custom, culture and economic preservation. As described by the Forest Service:



Forest reserves are for the purpose of preserving a perpetual supply of timber for home industries, preventing destruction of the forest cover which regulates the flow of streams, and protecting local residents from unfair competition in the use of the range.

We know that the welfare of every community is dependent upon a cheap and plentiful supply of timber; that a forest cover is the most effective means of maintaining a regular streamflow for irrigation and other useful purposes, and the permanence of the livestock industry depends upon the conservative use of the range.

Forest Service, United States Department of Agriculture, *The Use Book*, 13 (1906 ed.). Thus, in addition to providing for coordination and attempting to achieve consistency with local land use plans, the USFS is required to understand the cultural and economic drivers of a community and its plans must attempt to protect those drivers whenever possible.

### ***The Federal Land Policy and Management Act***

The Federal Land Policy and Management Act (FLPMA), which governs the Bureau of Land Management (BLM), provides detailed requirements for “coordination” and “consistency” with local land use plans. With regard to the requirements for “coordination”, FLPMA states that the BLM must:

*To the extent consistent with laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the State and local governments within which the lands are located [...] by considering the policies of approved State and tribal land resource management programs (43 U.S.C. § 1712(c)(9)).*

Such coordination is to be achieved by:

- To the extent practicable, the BLM must stay apprised of local land use plans.
- The BLM must assure that local land use plans germane to the development of BLM land use plans are given consideration.
- To the extent practicable, the BLM must assist in resolving inconsistencies between local and BLM land use plans.
- The BLM must provide for the meaningful involvement of local governments in the development of BLM land use programs, regulations, and decisions. This includes early notification of proposed decisions that may impact non-federal lands (43 U.S.C. § 1712(c)(9)).

Additionally, FLPMA requires BLM land use plans to be consistent with local land use plans, provided that achieving consistency does not result in a violation of federal law. FLPMA states: “Land use plans of the Secretary [of the Interior,] under this section **shall** be consistent with state and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act” (43 U.S.C. § 1712(c)(9)).



In other words, FLPMA requires both “coordination” and “consistency review.” Coordination should include both regularly scheduled meetings between the various local governments and BLM managers, as well as inviting local BLM staff to local government meetings (Bureau of Land Management, 2012). Pursuant to FLPMA’s consistency review requirement, if a BLM land use plan is inconsistent with a local land use plan, the BLM owes an explanation of how achieving consistency would result in a violation of federal law. (43 U.S.C. § 1712(c)(9)).

### *Governor’s Consistency Review Process*

FLPMA also requires that the BLM provide for a governor’s consistency review as part of their land use planning process (43 C.F.R. § 1610.3-2(e)). State governors are entitled to an additional and entirely separate review of BLM land use plans, revisions, and amendments; this provides an opportunity to identify any inconsistencies with state or local plans. If the governor’s comments result in changes to the plan, the public should be re-engaged in the process. The governor may also use policies in the County’s NRMP in their review of the proposed federal action.

## **1.2 CONVERSE COUNTY NATURAL RESOURCE MANAGEMENT PLAN PROCESS**

### **1.2.1 Plan Organization**

This NRMP considers the current conditions of federal resources within Converse County, County objectives for each resource, and how the County would like to see those objectives achieved. For all federal resources in the County, this plan addresses the following:

- **Resource Assessment and Legal Framework.** Includes background and detailed information on the resource, including qualitative as well as quantitative information. The assessment includes an evaluation of the importance of the resource to the County, location, quality and size, as well as a map of the resource, where appropriate. The Resource Assessment relies on the best data available at the time of publication, though new data collection or research is not required. The Resource Assessment addresses the question, “What is the state of the resource now?” This section does not describe how the County interprets or proposes to use a particular resource or topic. This section describes how federal agencies are interpreting federal laws, guidance, and handbooks.
- **Resource Management Objectives.** Describes general goals in the form of broad policy statements regarding the use, development, and protection for each resource. Resource Management Objectives address the question, “What does the County want for and from this resource?”
- **Priority Statements.** Describes specific priorities on how to achieve the County’s Resource Management Objective for each resource. Priority statements tied to Resource Management Objectives for each resource and address the question, “How would the County like to see its objectives achieved?” The general agreement or disagreement with the interpretation described in the Resource Assessment section should be used as the defining direction for the priority statements.





### 1.2.2 Development Process

Consistent with Wyo. Stat. § 9-4-218(a)(viii)(D), Converse County developed this plan in public meetings in accordance with Wyo. Stat §§ 16-4-401 through 16-4-408, allowing for participation and contribution from the public.

A public scoping meeting kicked off the development of the NRMP. The meeting was held in Douglas, WY on September 17, 2020 and reviewed the purpose and intent behind development of the NRMP. The draft NRMP document was released for a 45-day public comment period that began on January 14, 2022 and ended on February 28, 2022. A public meeting was held in Douglas on February 8, 2022 in which the public had the opportunity to participate and contribute comments to the plan as well as ask questions about the purpose and intent of the plan. Written comments received during the public comment period were analyzed and reviewed by the Commissioners and incorporated into the final plan as appropriate. The final plan will be presented to the Converse County Board of County Commissioners for final adoption in Spring 2022.

This plan is based on criteria developed by the Office of the Governor of the State of Wyoming in consultation with the Counties, consistent with Wyo. Stat. § 9-4-218(a)(viii)(B).

### 1.2.3 Amending the Natural Resource Management Plan

It is recommended to review the Converse County Natural Resource Management Plan every five years. Economic data and minor changes within the plan may be updated more frequently as updated information is available. This plan can be amended following the Wyo. Stat. § 9-4-218(a)(viii)(B) and the public meetings laws. Amendments to the plan only require that the NRMP with amendments is presented and adopted by the Converse County Board of County Commissioners during one of their regular meetings. The proposed action item to make amendments to the plan must be on the Converse County Board of County Commissioners Agenda before the meeting and the changes should be made available for the public when the agenda is posted.

### 1.2.4 County Expectations for Natural Resource Management Plan

While the statutes and regulations outlined above spell out the legal requirements of the federal agencies in their duties in dealing with local governments, the County recognizes that part of this land use planning process is to develop a solid working relationship with the federal agencies doing business in Converse County. The County also recognizes that “coordination,” “cooperating agency status” and “consistency review” are required actions on behalf of both the federal agencies and the local governments. To that end, the County commits to the following actions:

1. **Within 90 days** of the date of adoption of this plan, the County will inform the federal agencies of the date, time, and location of their regularly scheduled meetings with an open invitation that federal agency personnel to attend such meetings if there are proposed decisions or issues to discuss. At minimum, the County would like a biannual update or “as needed” updates on the following topics:
  - a. Minerals (including oil and gas leasing)





- b. Wildlife
  - c. Livestock grazing
  - d. Invasive species management
  - e. Road improvements
  - f. Any proposed changes to access of public lands
  - g. Any decisions that may affect water quality, water rights, or obligations to current interstate water compacts
  - h. Proposed land exchanges or purchases
  - i. An update on all permits or management decisions awaiting a final decision from the agency, including the length of time the permittee has waited on a decision and proposed timelines for the agency to make those pending decisions.
2. **Within 90 days** of the date of adoption of this plan, the County will transmit a copy of this local land use plan to the state, regional, and local federal agency offices doing business within Converse County for their consideration as part of any consistency review that is required pursuant to federal statute. Those agencies include:
- a. Bureau of Land Management – Casper Field Office (Casper, WY)
  - b. Bureau of Land Management – Wyoming State Office (Cheyenne, WY)
  - c. U.S. Forest Service – Douglas Ranger District (Douglas, WY)
  - d. U.S. Forest Service – Medicine Bow-Routt National Forests, Thunder Basin National Grassland (Laramie, WY)
  - e. U.S. Fish and Wildlife Service (USFWS) – Region 6 Office (Lakewood, CO)
  - f. Bureau of Reclamation (BOR) – Wyoming Area Office (Casper, WY)
  - g. Environmental Protection Agency (EPA) – Region 8 Office (Denver, CO)
  - h. Wyoming Governor’s Office (Cheyenne, WY)
  - i. Wyoming Department of Environmental Quality (WDEQ) (Cheyenne, WY)
  - j. Wyoming Game and Fish State Office (Cheyenne, WY)
  - k. Office of State Lands and Investments (Cheyenne, WY)
  - l. Wyoming Oil and Gas Conservation Commission (Casper, WY)
  - m. Wyoming Department of Agriculture (Cheyenne, WY)
3. **Within 90 days** of the adoption of this plan, the County will contact the BLM and USFS offices to determine a protocol for informal communication that should occur so that each is apprised of issues and concerns as early as possible.
4. In a timely manner, the County will review NEPA documents to determine if they will request “cooperating agency status” and will consider entering into Memorandums of Understanding (MOU) or Memorandums of Agreement (MOA) as appropriate. The County reserves the right to negotiate an MOU or MOA on a case-by-case basis, although an MOU or MOA is not appropriate nor necessary in all cases.

The Converse County Commissioners invite and welcome all agencies to their monthly Commission meetings to give an update on any items that need discussed. The County Commissioner meetings are typically held on the first and third Tuesday of every month, the official schedule can be found on the Converse County [website](#)<sup>1</sup> (**Note: website links can be found in Appendix A**). To assist in keeping an open line of communication and simplify coordination and scheduling between the County and the agencies, all correspondences between



the agency and the County will be initially directed to the Converse County Clerk as the main point of contact.

#### **1.2.4.1 Converse County Expectation Objectives:**

- A. Converse County has an established relationship with local federal agencies in which the agencies regularly coordinate, communicate, and allow the County to participate as a cooperating agency for any federal action the County deems appropriate.
- B. The Converse County Natural Resource Management Plan (NRMP) is reviewed by the federal agencies while generating their land use plans and other agency projects to ensure that the proposed land use plan and/or project is coordinated with this NRMP to the greatest extent possible.
- C. The federal agencies conduct a consistency review with the Converse County Natural Resource Management Plan for every proposed National Environmental Policy Act decision the agency makes that may affect Converse County, the natural resources within the County, or its citizens.
- D. Federal agencies consider the economic well-being and custom and culture of Converse County and its citizens when making decisions affecting natural resources within the County.
- E. Private property and interests in private property are protected and the continuation of private economic pursuits is promoted within Converse County.
- F. Multiple use is supported throughout Converse County.

#### **1.2.4.2 Converse County Expectation Priority Statements:**

1. Federal agencies should inform Converse County of all proposed projects, decisions, and actions that may affect the County and allow the County to participate as a cooperating agency and coordinate with agencies at the earliest time in the planning process.
2. Converse County requests the inclusion of at least one representative from the County Commission Board as a cooperating agency for any decision-making or management decision, which may affect wildlife resources or the economic viability of the County.
3. Federal agencies should give regular (where regular is defined as not less than biannually) updates or as needed updates on the permit status for current and proposed projects within Converse County's jurisdiction and support reasonable timelines and explanations for issuance of delays from permitting agencies.
4. Federal agencies should achieve a sustainable land use balance between economic growth and sustainability, energy development, recreation, agriculture, conservation use of lands, quality of life, Converse County's custom and culture, and the environment by coordinating with Converse County on all decisions.
5. Federal agencies should support traditional multiple land uses within Converse County to maintain continuity in the local economy and assure the sustainability of existing agricultural, recreational, and industrial interests while maintaining or improving the present environmental quality of life.
6. A full analysis of the impact each alternative and subsequent "decision" will have on the local economy, health, safety, and welfare of Converse County should be conducted by the federal agencies. If it is determined that the alternative will have significant negative



impact on the local economy, the alternative/decision is not supported by the County without a thorough review.

7. Federal agencies should inform and encourage those impacted by decisions to substantively participate in scoping process on a National Environmental Policy Act decision.
8. Federal agencies should follow the 2020 National Environmental Policy Act regulations which state that Environmental Impact Statements should be completed within 2 years from the issuance of a Notice of Intent and 150 pages or less excluding appendices and Environmental Assessments be completed within 1 year from the issuance of a Notice of Intent and be no greater than 75 pages.
9. Minimize the threat from developments to the health, safety, and welfare of those residing in rural areas within Converse County.
10. Inform Converse County and other local governmental entities how its information and recommendations were considered in federal land management decisions, including explanations particularly if County input was not adopted or incorporated.
11. The Converse County Clerk will serve as the first point of contact between the federal agencies and the Converse County Board of Commissioners.
12. Conduct annual meetings between the Converse County Commissioners, and/or its representative, and the BLM and Forest Service to discuss ongoing or upcoming projects along with potential policy or regulatory changes and any other pertinent business affecting the county.

### 1.3 CREDIBLE DATA

To the greatest extent possible, data should drive all land use planning decisions. In this plan, “data” refers to information that meets, at a minimum, the Federal Data Quality Act (FDQA). The FDQA directs the Office of Management and Budget (OMB) to issue government-wide guidelines that “provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility and integrity of information (including statistical information) disseminated by Federal agencies” (Sec. 552(a) Pub. Law. 106-554; HR 5658; 114 Stat. 2763 (2000)).

The OMB guidelines apply to all federal agencies and require that information disseminated by the Federal government will meet basic informational quality standards 66 Fed. Reg. 49718, Sept. 28, 2001 (see also 67 Fed. Reg. 8452, Feb. 22, 2002).

This “standard of quality” essentially requires that data used and published by all federal agencies meet four elements. These elements include (66 Fed. Reg. at 49718):

- a) Quality,
- b) Utility (i.e., referring to the usefulness of the data for its intended purpose),
- c) Objectivity (i.e., the data must be accurate, reliable, and unbiased), and
- d) Integrity.



In addition to following the OMB guidelines, all federal agencies were to issue data quality guidelines by October 1, 2002 (67 Fed. Reg. 8452).

In 2004, the OMB issued a memorandum requiring that, after June 15, 2005, influential scientific information representing the views of the department or agency cannot be disseminated by the federal government until it has been “peer reviewed” by qualified specialists (Office of Management and Budget, 2004). This requirement does not specifically require outside peer review, but internal review. Many federal agencies and some state agencies have respective handbooks that lay out their credible data standards. A list and links to these handbooks is provided below:

- BLM [1283 Data Administration and Management \(Public\) 2012](#)<sup>2</sup>
- Bureau of Reclamation – [Quality of Information](#)<sup>3</sup>
- Environmental Protection Agency (EPA) - [EPA Quality System Guidelines](#)<sup>4</sup>
- U.S. Army Corps of Engineers (USACE) – [Information Management Enterprise Data Management Policy Corporate Information](#)<sup>5</sup>
- USFS – [Forest Service Handbook 1909.12 – Land Management Planning Handbook Chapter 40 – Key Processes Supporting Land Management Planning](#)<sup>6</sup>
- U.S. Fish and Wildlife Service (USFWS) – [Data Standards](#)<sup>7</sup>
- Wyoming Department of Environmental Quality (WDEQ) – [WDEQ Standards](#)<sup>8</sup>

The Wyoming State Statute also defines credible data as scientifically valid chemical, physical, and biological monitoring data collected under an accepted sampling and analysis plan, including quality control, quality assurance procedures and available historical data (Wyoming State Statute §35-11-103(c)(xix)). Chapter 1, Section 35 of the Wyoming Water Quality Rules also defines credible data, that definition can be found [here](#) and is similar to that defined in Wyoming State Statute.

### **1.3.1 Credible Data Resource Management Objective:**

- A. Credible data has a universal meaning for all federal agencies in Converse County and is the basis for all agency decisions within the County.

### **1.3.2 Credible Data Priority Statements:**

1. Federal and state agencies should use credible scientific data in all federal land use decisions.
2. Federal and state agencies should include quantitative data in land use planning processes that meets credible data criteria, even if the data were not produced by a federal agency.
3. Federal agencies should adopt a universal definition of credible data consistent with the Converse County Natural Resource Management Plan and federal law.
4. Federal and state agencies should only use and consider data that is legally collected and meets the minimum criteria described in their respective handbooks when making land management decisions unless other criteria are agreed upon between Converse County and federal agencies.



5. Federal agencies should work with cooperating agencies in making sound natural resource decisions that are scientifically based, legally defensible, sensitive to resource health, and responsive to multiple-interest users.
6. Federal agencies should be transparent in their decision-making and provide the source for all data and studies relied upon for all decisions. Any studies not available to the public should either be made available for public review or not relied upon.



## CHAPTER 2: CONVERSE COUNTY CUSTOM AND CULTURE

### 2.1 COUNTY OVERVIEW

Converse County is in the central eastern portion of Wyoming. The County is bounded on the north by Campbell County on the northeast by Weston County, on the east by Niobrara County, on the southeast by Platte County, on the south by Albany County, on the southwest by Carbon County, on the west by Natrona County, and on the northwest by Johnson County. The southern part of the County contains portions of the Medicine Bow National Forest. The northeastern part of the County contains portions of the Thunder Basin National Grasslands. The North Platte River flows west to southeast through the County. The headwaters of the Cheyenne River also originate in northeastern Converse County from the confluence of Antelope Creek and Dry Fork Creek and then becomes Cheyenne River.

The estimated total population of Converse County according to the 2020 U.S. Census data is 13,751 people (U.S. Census Bureau, 2019). Over 66% of the residents of Converse County live in established cities, towns, and communities of Douglas, Glenrock, Rolling Hills, Esterbrook, Orin, and Lost Springs.

Converse County is the ninth largest county in Wyoming spanning over 2.7 million acres (4,254 square miles). Approximately 14% of the surface estate and 60% of the mineral estate in Converse County are federally owned, with the largest portions being held by the BLM and the USFS, and small acreages held by the BOR. This leaves approximately 76% of the surface estate being owned by private landowners with an estimated 9% held by the State of Wyoming. This situation that creates a severed mineral and surface estate is commonly referred to as “split estate” which occurred through the passage of numerous laws enacted by the federal government over time.





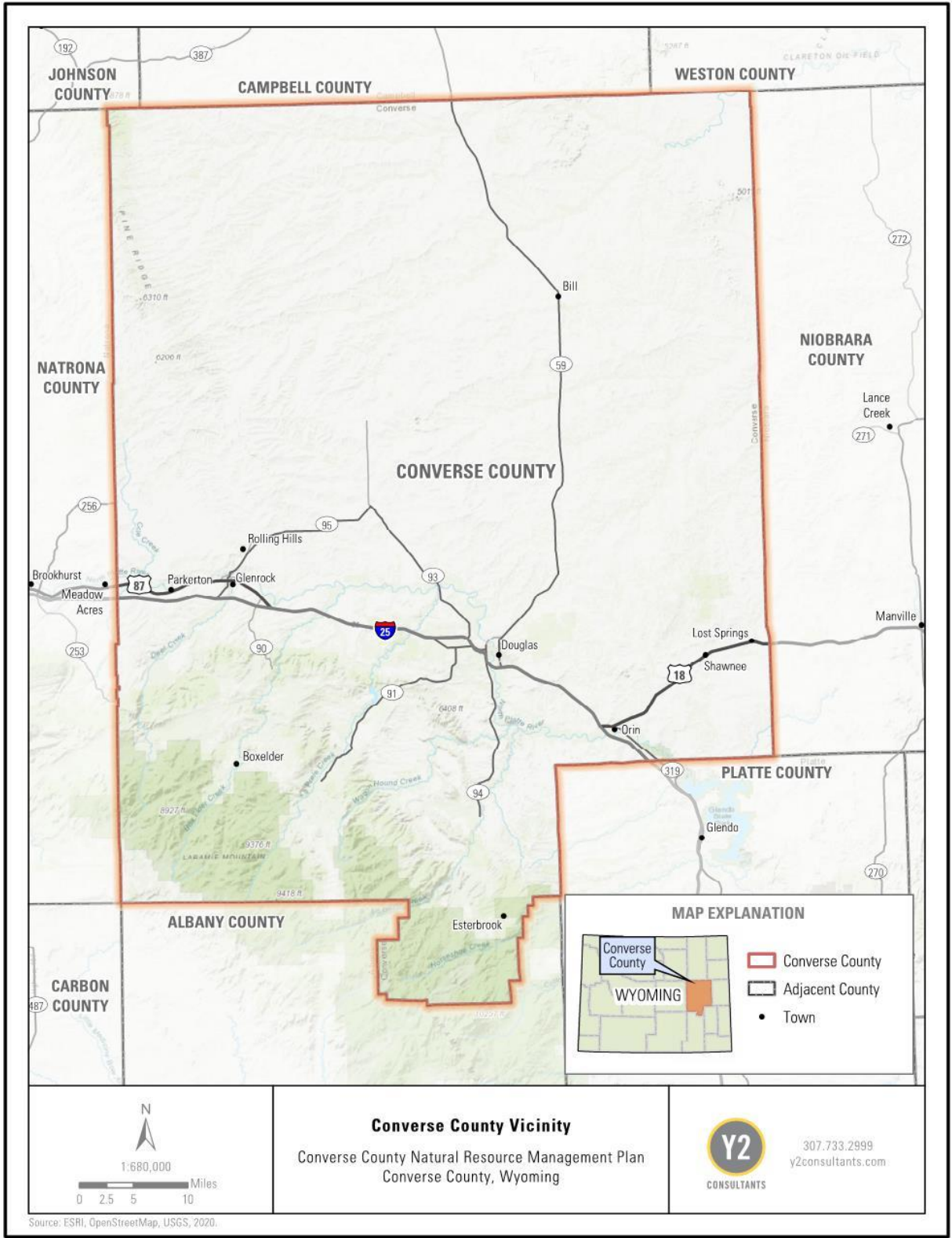


Figure 1. Converse County Natural Resource Management Plan Area.





## 2.1.2 Converse County History, Custom, and Culture

### *Converse County Custom and Culture*

County Commissions in the State of Wyoming have been charged with responsibility for the preservation of the custom and culture of Wyoming counties in matters relating to the NEPA and federal land planning. Since the customs, culture, and history of Converse County are inseparably tied to the use of and access to land and resources managed by federal agencies, the Board of County Commissioners will use the policies set forth in this NRMP to represent the vital interests of the County in federal natural resource planning efforts.

Farming, ranching, energy development, and recreation provided the heritage of the County's residents, and such activities continue today. The customs and culture of Converse County have historically been driven by open rangeland used for livestock and agricultural production. Rangeland used by livestock and agricultural producers continues to be the dominant land use in the County. Utilization and appreciation of wildlife have also been important components of the County's long-standing heritage and practice. Hunting, along with non-consumptive uses of wildlife, continues to be an important part of the County's culture. In more recent years, development of energy resources including coal, oil, gas, uranium, and wind have become increasingly dominant.

### *Converse County History*

The settlement of present-day Converse County began in the 1820s as trappers began moving west following the North Platte River. From the 1820s through the 1840s emigrants bound for Oregon, California, and Utah moved through the area following the North Platte. In the 1850s and 1860s stagecoaches and the Pony Express used the same routes in what is now known as the Oregon Trail. (McInnis, 2014)

An early trading post that served as a stage stop, Pony Express outpost, and telegraph station was built near where Deer Creek flows into the North Platte, near the present western boundary of Converse County. Fort Fetterman was built in 1867 approximately 20 miles east of Deer Creek and became an important staging point for the army in the Indian Wars of the 1860s and 1870s. Fifteen years after the fort was built it was decommissioned but the site remained as a rowdy civilian frontier outpost where cowboys, trail hands, and former soldiers could spend their money. (McInnis, 2014)

Multiple small communities in Converse County were established as small trading posts and stage stations. Glenrock, also known as Deer Creek Station, was an important stopping point for immigrants on the Oregon Trail and expanded as industries grew following 1890. Other small towns in the area grew in the same manner including Parkerton and Evansville. A smaller unincorporated community with a unique history is Bill, Wyoming. Bill formed after World War I and existed as a small community with a store and country school until World War II. It began declining at this point until it was only a small store and single residence in the 1970s. The Union Pacific Railroad established a stopping point at Bill to rest and replace railroad crews, causing the population to grow as a hotel and a diner were built. Orin is another railroad community that was



established in 1891. (“Bill, Wyoming,” 2020; “Glenrock, Wyoming,” 2022; “Orin, Wyoming,” 2021; “Parkerton, Wyoming,” 2021)

The establishment of Douglas began as three tents, a general store, a restaurant, and a saloon. The establishments drew in customers from the surrounding area, along with the sort of trouble that often came with such establishments. In 1886, the Fremont, Elkhorn, and Missouri Valley Railroad, building west from Chadron, Nebraska reached Douglas. This brought settlers who transformed the tent settlement into a town bringing civilization such as religion, government, finance, and law. It took time for the civilizing influence of the new settlers to overcome the existing culture and twenty-five bars sprang up in Douglas drawing a ready clientele from railroad workers and cowboys. In 1886, Douglas became an official town and two years after Converse County was created from parts of the already existing Albany and Laramie counties. Converse County was named for Amasa Converse who was a noted pioneer and Cheyenne Banker. (McInnis, 2014)

The first order of business with establishment of the county was to select the county seat. This was important as the county seat would have the economic benefit of government jobs as well as an advantage for future development. There were four areas that wanted the county seat designation: former Fort Fetterman, Douglas, Glenrock, and Lusk (now part of Niobrara County). A popular vote was held to determine the county seat and Douglas was the winner. (McInnis, 2014)

Like most of Wyoming, Converse County has experienced boom and busts in its economy since early times due to the nature of the commodities produced in the area such as beef, oil, gas, coal, and uranium which are subject to swings in demand and price.

In the early 1880s, ranchers brought cattle from Texas to the Converse County area to feed on the area’s rich grasslands. However, by 1885 the beef market had weakened, and the land did not appear to be as resilient to grazing. The winter of 1886 was severe with large storms followed by thaws that would freeze over the range making forage unavailable. Thousands of animals perished, and those losses collapsed the area’s cattle-dependent economy and many people left the area. The Douglas area suffered significantly and almost three-quarters of the population moved elsewhere. (McInnis, 2014)

In 1905, Converse County hosted the Wyoming State Fair when the Wyoming Legislature awarded the fair to Douglas and appropriated \$10,000 for land, buildings, and other expenses. The fair has been held in Douglas every summer since and has only been cancelled a few times; in 1935-1936 due to the Great Depression, in 1937 for an outbreak of infantile paralysis, and during the war years of 1942-1945 when gasoline and tires were rationed. The fair boasts a Professional Rodeo Cowboys Association rodeo as well as numerous events sponsored by 4-H groups and Future Farmers of America. Attendance runs in the tens of thousands annually, a large increase from the 2,500 visitors the first year. (McInnis, 2014)



In 1995, the discovery of *Triceratops* fossils on a ranch near Glenrock made Converse County famous for its dinosaur fossils and led to the creation of the Paleon Museum in downtown Glenrock.

Today, Converse County survives on the same economic commodities as much of Wyoming and the West: a mix of agriculture, energy, and tourism. Cattle and sheep still graze the grasslands and oil and minerals continue to be uncovered and produced when markets allow. The North Platte River helps sustain people, crops, and livestock. Other energy within the county includes wind energy and the 762-megawatt Dave Johnson coal-fired power plant in Glenrock. I-25 runs through Converse County, which is the highway corridor that runs from Las Cruces, New Mexico through Albuquerque, Colorado Springs, Denver, Fort Collins, Cheyenne, Casper, and ending in Buffalo, Wyoming where it intersects with I-90 making transportation of products readily available.

## 2.2 CULTURAL, HISTORICAL, & PALEONTOLOGICAL RESOURCES

### 2.2.1 History, Custom, and Culture

Converse County is home to many historical artifacts ranging from the time of the dinosaurs to the development of the railroad. This provides a rich and deep history that has led to the present-day custom and culture of the area. Many fossilized microscopic organisms, flora, and fauna have been found throughout the county. The Paleon Museum in Glenrock has amazing fossils of dinosaurs both large and small and provides the opportunity for research and digging throughout the area.

Converse County's location along the Platte River Valley led the county to being directly involved in the historical settlement of the Western U.S. This first began with early Indigenous people who followed the river for its resources. Campsites and kill sites have been found throughout the county. Next came the early explorers and trappers who used the route on their way to find furs and other resources. The Emigrant and Indian War occurred in the area around the early 1800s and resources found from this period include the emigrant trails, the Army campsites of Fort Fetterman, and the Fort Fetterman Stage Routes and Stage Stations. In the early 1800s through the early 1900s, the Oregon, California, Mormon, and Bozeman trails came through the area and over time many towns and way stations sprang up along the trails to provide supplies and services to those seeking the adventure out west.

### 2.2.2 Resource Assessment and Legal Framework

Converse County's traditional lifestyle has centered on agricultural pursuits and resource-based industries for generations. Preservation of the remaining historic sites is important to maintain and preserve the cultures of historic and present Converse County inhabitants. Historic preservation of property enhances economic values and provides the basis for heritage tourism. The County is concerned with protecting these resources that have intrinsic value based on their age, heritage, or other intangible significance. These resources also highlight the unique character of the local setting and may contribute toward attracting businesses and tourism.



### *Historic and Archeological Resources*

Many historical and cultural resources are sensitive and protected by law. There are two acts that primarily protect these historic and archeological resources. The National Historic Preservation Act (NHPA) was passed in 1966 and authorized the Secretary of Interior to maintain and expand a National Register of Historic Places. This act established policy for the protection and preservation of sites (e.g., districts, buildings, structures, and objects) that are placed on the National Register of Historic Places. The Register of Historic Places is managed by the National Park Service. Under NHPA, federal agencies are required to evaluate the effects of actions on any designated 'historic properties' and follow the regulations set by the Advisory Council on Historic Preservation (ACHP) (36 C.F.R. § 800). (National Preservation Institute, 2020)

For listing in the National Register, a property or site must usually be at least 50 years old and have historic significance within one or more of the four criteria for evaluation. The criteria relate to a property's association with important events, people, design or construction, or information potential. The National Register criteria recognize these values embodied in buildings, structures, districts, sites, and objects. The four criteria are as follows:

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded or may be likely to yield, information important in prehistory or history. (Wyoming SHPO, n.d.)

The Secretary of the Interior has the ultimate decision-making authority when deciding whether a site is listed in the National Register. However, local governments, including counties, can significantly influence the process. Local governments certified by the State Historic Preservation Officer (SHPO) are entitled to prepare a report stating whether a site nominated in its jurisdiction is, in its opinion, eligible for listing in the National Historic Register (see NHPA Section 101(c).

Perhaps most influential on federal actions, Section 106 of the National Historic Preservation Act (NHPA) grants legal status to historic preservation in federal planning, decision making, and project execution. Section 106 applies when two thresholds are met: 1) there is a federal or federally licensed action, including grants, licenses, and permits; and 2) that action has the potential to affect properties listed in or eligible for listing in the National Register of Historic Places.

Section 106 requires all federal agencies to consider the effects of their actions on historic properties. The responsible federal agency must consult with appropriate state and local officials, Indian tribes, applicants for federal assistance, and members of the public and consider their views and concerns about historic preservation issues when making final project decisions.



Although all agencies must follow the NHPA when it has a degree of control over a project, the NHPA does not impose general obligations on federal agencies to affirmatively protect preservation interests. *Waterford Citizens’ Ass’n v. Reilly*, 970 F.2d 1287, 1291 (4<sup>th</sup> Cir. 1992). Rather, the NHPA only requires that federal agencies keep the Advisory Council informed of the effect of federal undertakings and allow the Committee to make suggestions to mitigate adverse impacts on the historic sites under its protection. *Id.* In turn, the NHPA ultimately was created to discourage federal agencies from “ignoring preservation values in projects they initiate, approve funds for, or otherwise control.” *Id.*

Effects are resolved by mutual agreement, usually among the affected state’s SHPO or the Tribal Historic Preservation Officer (THPO), the federal agency, and any other involved parties. The ACHP may participate in controversial or precedent-setting situations.

In 2014 the act was amended, and the codified law was moved from Title 16 to Title 54 and retitled the Historic Preservation Act. However, the substance of the act remained the same, so the listing criteria for placement of sites in the National Historic Register and the requirements under Section 106 remain.

Currently Converse County has 21 listed sites in the National Register (Wyoming SHPO, n.d.). The sites are listed in Table 1 and additional information about each site can found online [here](#)<sup>9</sup>-(all website links can be found in Appendix A and are denoted in the text with a superscript number).

**Table 1. National Register Historic Sites located within Converse County.**

National Register Historic Site	Location	Site Owner
Antelope Creek Crossing	NA	Federal, Private
Braehead Ranch	Douglas	Private
Christ Episcopal Church and Rectory	Douglas	Private
College Inn Bar	Douglas	Private
Commerce Block	Glenrock	Private, Local
Douglas City Hall	Douglas	Local
Fort Fetterman	Orpha	State
Fremont, Elkhorn & Missouri Valley Railroad Passenger Depot	Douglas	Local
Glenrock Buffalo Jump	Glenrock	State, Private
Holdup Hollow Segment (Bozeman Trail)	NA	Federal, Private
Hotel Higgins	Glenrock	Private
Hotel LaBonte	Douglas	Private
Jenne Block	Douglas	Private
La Prele Work Center	Douglas	Private
Morton Mansion	Douglas	Private
North Douglas Historic District	Douglas	Private, State
Officer’s Club, Douglas Prisoner of War	Douglas	State
Ross Flat Segment (Bozeman Trail)	NA	State, Private
Sage Creek Station	Glenrock	Private



Stinking Water Gulch Segment (Bozeman Trail)	NA	Federal, Private
U.S. Post Office (Douglas Main)	Douglas	Federal

The Archaeological Resources Protection Act (ARPA) of 1979 provides regulations on the management of historic sites on federal land and the issuance of permits to excavate archeological discoveries.

### *Paleontological Resources*

There are multiple paleontological resources within Converse County. Formations in the area include the Fox Hills, Cody Formations (quarried near Glenrock), the Morrison Formation, and the White River Formation (quarried near Douglas). (Clearinghouse, n.d.; Paleon Foundation, 2019)

The Paleon, a museum in Glenrock, collects fossils from several established quarries on both private and public land in the surrounding area of Wyoming. The Paleon also acts as an educational and tourist location, hosting digs for ‘paleo-vacationers’ (Paleon Foundation, 2019). Fossils are considered the property of the property owner of the site the fossil was found. For this reason, when there is a substantial find the paleontology museum and/or foundation will often draft up legal paperwork agreeing to recover and preserve the fossil in exchange for the specimen to then be donated to the museum. On public land paperwork must be filed with the managing agency prior to recovery (Paleon Foundation, 2019).

The Paleontological Resource Preservation Act (PRPA) was enacted in 2009, directing multiple federal agencies to establish comprehensive management plans for paleontological resources. PRPA applies to the USFS, BLM, BOR, NPS, and the USFWS. For information concerning each agency’s plan regarding paleontological resources refer to their websites below. (Bureau of Land Management, 2016b; National Park Service, 2020)

- [Forest Service, fossils and paleontology](#)<sup>10</sup>
- [Bureau of Reclamation, fossil resources](#)<sup>11</sup>
- [U.S. Fish and Wildlife Service, historic preservation](#)<sup>12</sup>
- [Bureau of Land Management, Paleontology](#)<sup>13</sup>
- [National Park Service, Fossils and Paleontology](#)<sup>14</sup>

### **2.2.3 Cultural/Historical/Paleontological Resource Management Objectives:**

- A. Existing property rights and uses within Converse County are considered when managing cultural, historical, geological, and paleontological resources.
- B. Converse County is coordinated with concerning the designation and management of all cultural, historical, geological, and paleontological resources.
- C. Cultural, historical, geological, and paleontological resources within Converse County are preserved and protected as appropriate for current and future public education and enjoyment.
- D. Split estate mineral development within Converse County is not impeded by cultural surveys.



#### **2.2.4 Cultural/Historical/Paleontological Priority Statements:**

1. Converse County requests to be recognized by federal agencies as a consulting party under Section 106 of the National Historic Preservation Act and subsequent amendment.
2. Converse County expects federal agencies to comply with the timeline for review set forth in Section 106 of the National Historic Preservation Act.
3. All federal agencies should communicate with Converse County on known or potentially significant cultural resources within the County and allow the County to participate in the management and protection of the resource, where appropriate.
4. Federal agencies should recognize that cultural and archeological resources located on private lands are the property of the surface owner and uphold that property ownership in any federal planning action or decision.
5. Converse County should be consulted on any buffer zones implemented for the protection of historical and cultural resources.
6. Converse County supports private property rights as paramount for cultural, historical, geological, and paleontological resources thought to be on private lands.
7. Converse County supports responsible stewardship on cultural sites on federal lands balancing resource protection with current and future multiple uses on those lands that are consistent with the custom and culture of Converse County.
8. Federal agencies should support development including roads, pipelines, and powerlines that may cross trails in areas where previous disturbance has occurred and/or where the trail segment has lost the characteristics that contribute to its National Register significance.
9. Converse County opposes management of roads that have historically been used by the public and were established for public access to be managed as historical trails with restricted access or use.





## CHAPTER 3: LAND USE

### 3.1 LAND USE

Public lands and the resources on them influence the custom and culture of Converse County. These resources are important for the livelihoods of residents and the attraction of those traveling through. Converse County is the ninth-largest County in Wyoming, spanning 4,254 square miles. Converse County is 14% federally managed, with BLM managing 4.7% (130,048 acres), the USFS managing 9.5% (259,264 acres), and the BOR managing <1% (128 acres). Converse County relies on these federally managed lands for energy development, livestock grazing, wildlife, tourism, and recreation. Figure 2 Shows the land ownership of Converse County.

The relationship between the County and the federal agencies is key to ensuring resources are managed successfully and Converse County's custom and culture of using public lands for multiple uses remains intact. The County and agencies have worked together in the past on resource management concerns and issues and will continue to strengthen and build those relationships to ensure that all stakeholders are at the table when discussing resource management on public lands within Converse County.

#### 3.1.1 Conservation Districts

During the 1930s, the Dust Bowl made the need to conserve natural resources, particularly soil, very clear. The Soil Conservation Act of 1935 created the Soil Conservation Service, now termed the Natural Resource Conservation Service (NRCS), to develop and implement soil erosion control programs (WACD, n.d.). In 1941, the Wyoming State Legislature passed an enabling act, which established conservation districts in Wyoming. Conservation districts were to direct programs protecting local renewable natural resources. Wyoming now has 34 conservation districts in 23 counties (WACD, n.d.).

Originally there were three conservation districts formed in Converse County. In 1947 both the LaPrele District and the Glenrock District were formed and later consolidated in 1963. The third district, the Upper Cheyenne River District was formed in 1951. In 1979, the conservation districts merged and became the Converse County Conservation District.

The Converse County Conservation District is a locally led effort overseen by a locally elected board of five. Each supervisor is elected in the general election and serves a four-year term on a voluntary basis. The board meets the third Thursday of each month unless otherwise publicized.

The Converse County Conservation District is a local government and a political subdivision of the State of Wyoming as defined and established by the Wyoming Statutes at Title 11, Chapter 6, et seq., entitled "Wyoming Conservation District Law." Converse County Conservation District is guided by the statute's Legislative Declarations and Policy, which also outlines much of the conservation district's special expertise:

*(a) it is hereby declared that the farm and grazing lands of Wyoming are among the basic assets of the state; that improper land use practices cause and contribute to serious*



*erosion of these lands by wind and water; that among the consequences which would result from such conditions are the deterioration of soil and its fertility and the silting and sedimentation of stream channels, reservoirs, dams and ditches; that to conserve soil, and soil and water resources, and prevent and control soil erosion, it is necessary that land use practices contributing to soil erosion be discouraged and that appropriate soil conserving land use practices be adopted.*

*(b) it is hereby declared to be the policy of the legislature to provide for the conservation of the soil, and soil and water resources of this state, and for the control and prevention of soil erosion and for flood prevention or the conservation, development, utilization, and disposal of water, and thereby to stabilize ranching and farming operations, to preserve natural resources, protect the tax base, control floods, prevent impairment of dams and reservoirs, preserve wildlife, protect public lands, and protect and promote the health, safety and general welfare of the people of this state.*

### **3.1.2 Bureau of Land Management**

#### ***History, Custom, and Culture***

The BLM we know today was established in 1946 by combining the General Lands Office (GLO) and the U.S. Grazing Service. The GLO was created in 1812 and was responsible for all federal land sales, patents, and entries established within Treasury Department to oversee disposition of ceded and acquired lands (Bureau of Land Management, 2016a). In 1934, the Taylor Grazing Act authorized grazing districts, regulation of grazing, and public rangeland improvements in Western states and established the Division of Grazing (later renamed U.S. Grazing Service) within the Department of the Interior.

#### ***Resource Assessment and Legal Framework***

The BLM manages approximately 4.7% of the lands in Converse County. BLM administered lands in the County are managed by the Casper Field Office, which is part of the High Plains District Office located in Casper, WY. The Casper Field Office encompasses approximately 32,531 square miles. The [Casper Field Office Resource Management Plan](#)<sup>15</sup> (RMP) was approved in a record of decision (ROD) signed in 2007. The final Converse County Oil and Gas Project Record of Decision was released by the BLM in December 2020. The project allows for development of up to 5,000 new oil and natural gas wells within a 1.5-million-acre project area in Converse County. Further information on this project can be found [here](#)<sup>16</sup>.

The Federal Land Policy and Management Act (FLPMA) is the BLM’s governing document outlining the management responsibilities of the BLM to balance public access and multiple-uses with the protection and preservation of the quality of the lands and its resources (43 USC § 1732) (FLPMA, 1976). FLPMA requires the BLM to administer federal lands “on the basis of multiple use and sustained yield” of all resources (FLPMA, 1976).



### 3.1.3 United States Forest Service

#### *History, Custom, Culture*

In 1876, United States forest management was formalized with the creation of the Office of Special Agent within the Department of Agriculture for the purpose of assessing the quality and condition of U.S. forests. In 1881, the Division of Forestry was added to the Department of Agriculture. In 1891 Congress passed the Forest Reserve Act allowing the President to designate western lands as “forest reserves” to be managed by the Department of the Interior. Western communities strongly opposed forest designations because development and use of “reserved lands” were prohibited. In 1897, Congress adopted the Organic Administration Act of 1897 (OAA) to protect the use of forest reserves for local citizens. The OAA declared that forest reserves would be created either to protect water resources for local communities and agriculture, and/or to provide a continuous supply of timber. Thus, the purposes for which forests were to be used changed from the land being reserved from local communities to the land being used for economic development by local communities.

Responsibility for forest reserves was transferred to the Department of Agriculture with the Transfer Act of 1905 and the establishment of the USFS. The Multiple-Use Sustained-Yield Act of 1960 (MUSY) requires that forests be managed for various non-timber uses (MUSY of 1960, 1960). This idea was further codified in the National Forest Management Act (NFMA) (16 USC § 1601(d)).

USFS lands in Converse County are part of the Medicine Bow National Forest and Thunder Basin National Grasslands (TBNG). The TBNG was created in 1934 as the Northeastern Wyoming Land Utilization Project under the Agricultural Adjustment Administration and administered by the Farm Security Administration, Bureau of Agriculture, and the Soil Conservation Service. The lands were transferred from the Soil Conservation Service to USFS in 1954. The TBNG was designated with permanent National Forest System status in 1960. The TBNG is divided into three units for grazing administration, with each unit having a grazing association. These associations include the Thunder Basin Grazing Association based out of Converse County, the Inyan Kara Grazing Association Based out of Weston County, and the Spring Creek Grazing Association based out of Campbell County. These associations were established during the mid-1930s and still exist today. In 1987, the TBNG was combined with Laramie Peak Ranger District into the Douglas Ranger District and in 1993 was consolidated into the Medicine Bow-Routt National Forest.

#### *Resource Assessment and Legal Framework*

The USFS manages approximately 259,264 acres (9.5%) of the total land in Converse County all within the Medicine Bow National Forest and TBNG. The TBNG is headquartered in Laramie, Wyoming with the Douglas, Wyoming Ranger District being the closest ranger district. TBNG spans over 572,000 acres in eastern Wyoming in a mosaic of state, federal, and private lands.

The National Forest Management Act requires that each national forest and grassland be governed by a management plan. The Revised Land and Resource Management Plan (LRMP) for the Medicine Bow National Forest was approved in 2003. Three amendments have been made to the Medicine Bow National Forest RMP and modify specific activities in the 2003 Revised



LRMP. These amendments include the Southern Rockies Lynx Management Direction Amendment (2008), Energy Policy Act (EPA) of 2005 Section 368 Westside Energy Corridor Amendment, and Site-specific Amendment Travel Management – Eastern Snowy Range EA (2007).

The Land and Resource Management Plan (LRMP) for the TBNG was approved in 2002. The TBNG finalized the [TBNG Prairie Dog Management Strategy and Land and Resource Management Plan Amendment](#)<sup>17</sup> in December of 2020. Two previous amendments are also a part of the LRMP, the 2001 TBNG Land and Resource Management Plan Amendment which allows for approval of a construction permit and granting of an authorization for operation and maintenance of the rail line on portions of the TBNG and the 2001 Teckla to Antelope Coal Mine 69kV Power Line Amendment which allowed construction of an overhead 69kV power line within the minimum standard of ¼ mile of an active raptor nest.

### **3.1.4 Bankhead-Jones Farm Tenant Act**

#### **History, Custom, and Culture**

The TBNG, along with all 20 National Grasslands in the U.S., was created through the Bankhead-Jones Farm Tenant Act (BJFTA) which authorized the federal government to acquire damaged lands for rehabilitation after the Dust Bowl.

The BJFTA originally contained four titles. Title I authorized loans to farm tenants, laborers, sharecroppers, and others for the purchase of farms. Title II authorized rehabilitation loans and the voluntary adjustment of indebtedness between farm debtors and their creditors. Title III gave the Secretary of Agriculture a broad mandate to acquire sub-marginal lands (lands not suitable for farming) by purchase or donation. It resulted in the formal establishment of the formerly ad hoc Land Utilization Program and set forth the purpose and direction of the program. Section 33 of Title III also authorized payment to counties of 25% of the net revenues received on lands acquired under BJFTA from grazing, forestry, mining, and energy development. Title IV established the Farm Security Administration to implement and administer the Act. There have been major changes to the Bankhead-Jones Act since its enactment including the repeal of Titles I, II, and IV by Congress in the Agricultural Act of 1961 (Olson, 1997). Title III, however, remains in effect. It has been amended several times by Congress and today Section 31, which sets forth the purpose of the program and the permitted uses for the acquired lands administered under BJFTA, states:

*The Secretary is authorized and directed to develop a program of land conservation and land utilization, in order thereby to correct maladjustments in land use, and thus assist in controlling soil erosion, reforestation, preserving natural resources, protecting fish and wildlife, developing and protecting recreational facilities, mitigating floods, preventing impairment of dams and reservoirs, developing energy resources, conserving surface and subsurface moisture, protecting the watersheds of navigable streams, and protecting the public lands, health, safety, and welfare, but not to build industrial parks or establish private industrial or commercial enterprises. (71 U.S.C. § 1010) (Olson, 1997)*



### *Resource Assessment and Legal Framework*

The authority to manage national grasslands such as the TBNG comes from the 1937 Bankhead-Jones Farm Tenant Act (BJFTA) (7 U.S.C. §§ 1010–1012). The BJFTA authorizes the Secretary of Agriculture, through the USFS, to:

Develop a program of land conservation and land utilization, in order thereby to correct maladjustments in land use, and thus assist in controlling soil erosion, reforestation, preserving natural resources, protecting fish and wildlife, developing and protecting recreational facilities, mitigating floods, preventing impairment of dams and reservoirs, developing energy resources, conserving surface and subsurface moisture, protecting the watersheds of navigable streams, and protecting the public lands, health, safety, and welfare, but not to build industrial parks or establish private industrial or commercial enterprises.

The BJFTA was originally enacted to address agricultural problems caused and exacerbated by the Great Depression and Dust Bowl and continues to be one of the principal laws governing the Forest Service’s administration of the national grasslands today. However, a number of other laws provide additional direction for grassland management:

- The Granger-Thye Act of 1950 established a new direction for some aspects of National Forest System management (16 U.S.C. § 572 et seq.). This Act authorized: (a) the use of grazing fee receipts for rangeland improvement; (b) the Forest Service to issue grazing permits for terms up to 10 years; (c) the Forest Service to participate in funding cooperative forestry and rangeland resource improvements; (d) the establishment of grazing advisory boards; and (e) the Forest Service to assist with work on private forestlands. Shortly after the Granger-Thye Act of 1950, the Department of Agriculture, in 1954, turned the management of the national grasslands over to the Forest Service.
- NEPA requires federal agencies to evaluate and disclose the environmental impact of “major federal actions significantly affecting the quality of the human environment” (42 U.S.C. §§ 4321 et seq.). In short, NEPA is a procedural statute that generally outlines the steps a federal agency must take when planning a project, though other federal statutes specific to a particular agency or type of project may require additional procedures.
- The 1973 Endangered Species Act (ESA) generally requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of the designated critical habitat of such species (16 U.S.C. §§ 1531 et seq.).
- The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) requires, among other things, the Forest Service to develop land and resource management plans for units of the National Forest System. Congress added more specific requirements to the Forest Service planning obligations in the NFMA (16 U.S.C. §§ 1600 et seq.). Specifically, the NFMA:



Forest Service regulations governing management of the national grasslands are found at 36 C.F.R. Part 213 (the 213 Regulations). Relevant provisions of the 213 Regulations provide:

The national grasslands shall be “permanently held by the Department of Agriculture for administration under the provisions *and purposes* of Title III of the Bankhead–Jones Farm Tenant Act,” and “administered under sound and progressive principles of land conservation and multiple use, *and to promote development of grassland agriculture and sustained-yield management of the forage. . . .*” (36 C.F.R. §§ 213.1(b) and (c) (emphasis added)).

Grassland resources “shall be managed so as to maintain and improve soil and vegetative cover, and to demonstrate sound and practical principles of land use for the areas in which they are located” (36 C.F.R. § 213.1(d)). The Chief of the Forest Service also must, to the extent feasible, enact management policies that “exert a favorable influence for securing sound land conservation practices on associated private lands” (36 C.F.R. § 213.1(d)).

Additionally, the 213 Regulations explicitly provide that other regulations applicable to national forests, including those governing livestock grazing, are incorporated and apply to regulate the protection, use, occupancy, and administration of the national grasslands to the extent they are consistent with the provisions of the BJFTA (36 C.F.R §§ 222 et seq. and 36 C.F.R. § 213.3(a)).

### **3.1.5 Other Federal Agencies**

At this time that this plan was adopted there only other federal agency that manages land within Converse County is the Bureau of Reclamation (BOR). The BOR manages 128 acres for Glendo Reservoir that falls within Converse County. The majority of Glendo Reservoir and Dam lie within Platte County on the North Platte River.





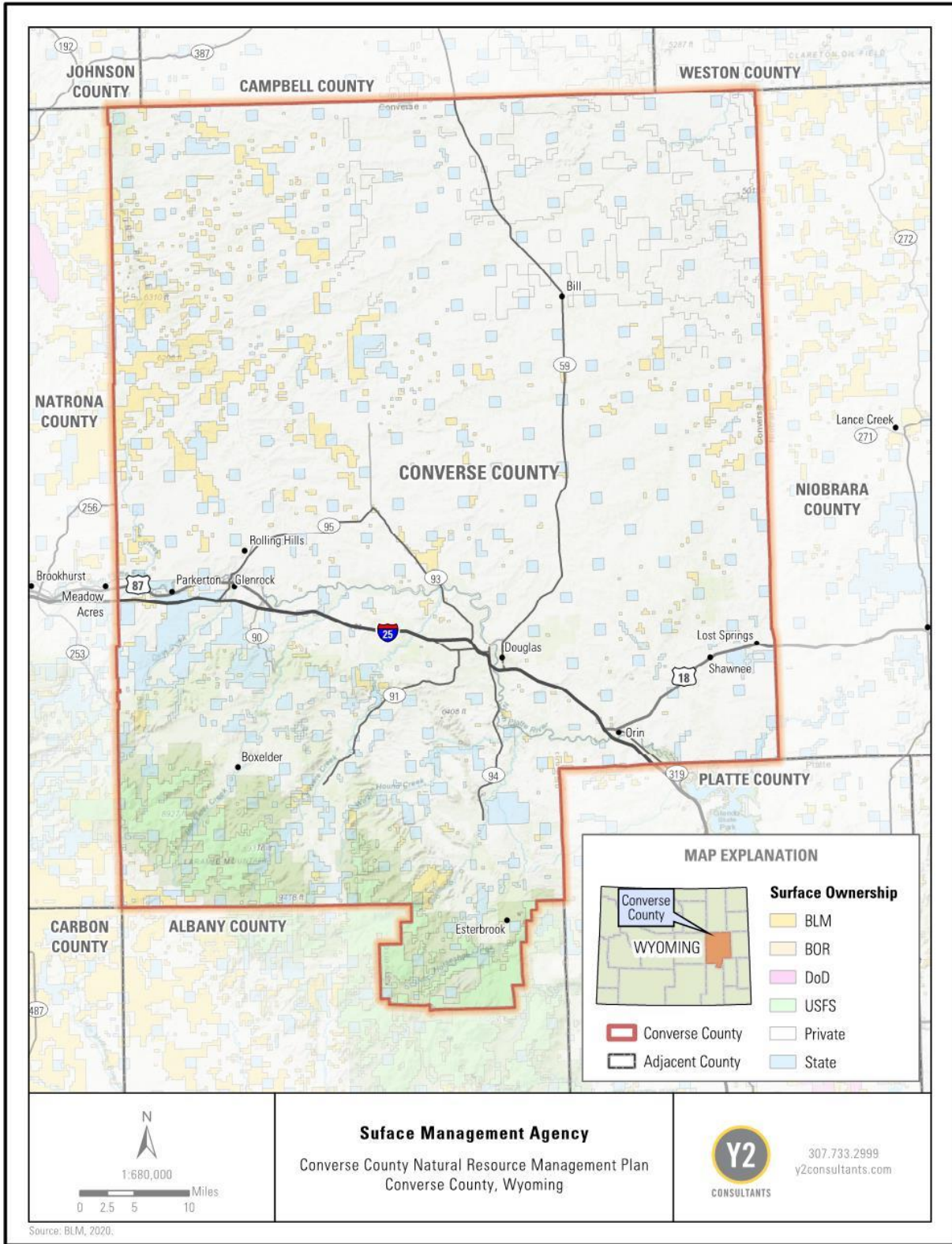


Figure 2. Converse County surface management.





### **3.1.6 Land Use Resource Management Objective:**

- A. The basis for management of all public lands is multiple-use management that considers Converse County's custom and culture and economic wellbeing in coordination with the County.

### **3.1.7 Land Use Priority Statements:**

1. Federal agencies should conduct any National Environmental Policy Act analysis using multiple-use principles that take into consideration all the resources such as, but not limited to, agriculture, air, energy, mineral extraction, range, recreation, socioeconomics, timber, tourism, wildlife, and water within Converse County.
2. Converse County shall be notified and allowed to participate as a cooperating agency on National Environmental Policy Act projects that may influence the economic stability of the County and its residents.
3. Federal agencies should support decisions that ensure the socioeconomic wellbeing of Converse County citizens, maintain the culture and customs of the constituents, and consider natural resource health.
4. Federal agencies should consider the affects their decisions will make to neighboring private and state lands within Converse County.
5. When an agency decision or proposed alternative will have a negative impact to the current use of neighboring lands, that proposed decision or alternative may not be supported by Converse County.
6. Federal agencies should coordinate with and accommodate reclamation needs of neighboring landowners whenever a project will affect adjacent lands.
7. Federal agencies should protect and enhance access for the enjoyment of federal and state managed lands in Converse County.
8. Converse County does not support the creation of additional federal lands within the County.
9. Government lands should be made available for traditional eminent domain uses, such as pipelines and transmission lines, where logical, recognizing that government land has no greater value than private land.
10. Unless it will impede private property rights and freedom of contract, conservation easements should be entered into by agreement of the landowner and should be held by private entities rather than federal agencies.
11. Ensure there is no net loss of private lands in Converse County. Net loss shall be measured in acreage and fair market value.



## 3.2 TRANSPORTATION AND LAND ACCESS

### 3.2.1 History, Custom, and Culture

Public access to routes of travel is essential to the County's transportation and public access systems and to the economic, social, political well-being, custom and culture of the communities and citizens of Converse County. Access, rights-of-way and water rights were critical to the early settlers and remain critical today. Many private landowners need rights-of-way across the state and federal lands to access their property, to use their water rights, and to exercise their grazing rights. Today, access to land, water, and natural resources remains critical to the economic stability and culture of Converse County. Because the County also depends upon the responsible use and development of public land resources, adequate, feasible, and fully protected access is required to utilize and protect these resources. Many land uses in the County depend upon roads and rights-of-way associated with general non-motorized and motorized travel.

Recreation users depend on trails and roads to hunt, camp, and enjoy the land and scenery in Converse County. The use and development of natural resources depends on access across and to federal and state lands. Livestock operators need access to forage on federal land and access to move livestock and construction materials to maintain and build range structures. Landowners need access in the form of rights-of-way to divert water for irrigation purposes and to provide water for livestock, or to use water in relation to other development. It is vital to the sustainability of the livestock industry in Converse County that grazing areas, and the stock trails that connect them, be open and accessible. Livestock “trailed” from one grazing area to another must have access to grazing areas on either end of that process, as well as lands in between.

The County itself relies on access to federal lands to fulfill its statutory mandate to protect the health, safety, and general welfare of the people within its jurisdiction; including but not limited to fire protection, search and rescue, flood control, law enforcement, economic development, and the maintenance of County improvements. Transportation within the County is also vital for recreational use of federal lands and access to oil and gas on federal lands.

### 3.2.2 Resource Assessment and Legal Framework

There is an extensive network of roads in Converse County. The primary through-routes are either State or Federal highways. Major highways through Converse County include Interstate 25, U.S. Highways 18, 20, 26, 87, and Wyoming Highway 59. The county road network is over 632 miles and is another essential system of roads. For the most part, these roads are not paved and are accommodated on either a 60- or 66-foot road easement and are surveyed. Some of the roads are not built to any design standards for either weight or safety.

Congress, as the constitutional manager of the federal lands, has made it clear through natural resource statutes that the general public must have use of and access to the federal lands. It is vital to the County's interests and performance of duties that full and complete access to the federal lands continue.



### **Federal Highway Administration**

The Federal Highway Administration (FHWA) is an agency within the U.S. Department of Transportation and was created in 1966.

*The mission of FHWA is to enable and empower the strengthening of a world-class highway system that promotes safety, mobility, and economic growth, while enhancing the quality of life of all Americans.*

Under this mission, the FHWA provides resources to municipalities across the nation and in the form of indirect and direct methods. Indirectly, the FHWA provides valuable research and design guidance on numerous topics to push the industry towards a safer, efficient, and holistic network. Directly, the FHWA provides grants to the local Department of Transportation divisions to facilitate project design and construction based upon merit. These grants are distributed through the Federal Highway-Aid Program.

Alongside the FHWA, numerous programs were created under the Federal Lands Highway Division (FLHD) to specifically service certain groups and were reauthorized under the Fixing America’s Surface Transportation (FAST) Act. These programs are:

- Federal Lands Access Program (FLAP): “established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within, Federal lands. The Access Program supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.” .
- Federal Lands Transportation Program (FLTP): “established in 23 U.S.C. 203 to improve the transportation infrastructure owned and maintained by federal land management agencies including National Park Service (NPS), U.S. Fish and Wildlife Service (USFWS), USFS, BLM, U.S. Army Corps of Engineers (USACE), Bureau of Reclamation (BOR), and independent federal agencies with land and natural resource management responsibilities.”.
- Nationally Significant Federal Lands and Tribal Projects Program (NSFLTP): “...provides funding for the construction, reconstruction, and rehabilitation of nationally significant projects within, adjacent to, or accessing Federal and tribal lands. This program provides an opportunity to address significant challenges across the nation for transportation facilities that serve Federal and tribal lands.” .
- Emergency Relief for Federally Owned Roads (ERFO): “established to assist federal agencies with the repair or reconstruction of tribal transportation facilities, federal lands transportation facilities, and other federally owned roads that are open to public travel, which are found to have suffered serious damage by a natural disaster over a wide area or by a catastrophic failure.” .



Wyoming Department of Transportation (WYDOT) can work directly with any of the above programs to help secure funding and has annually. Through the FLAP program alone, Wyoming has secured \$73.3 million spread across 16 projects from 2013 to 2022.

### **Revised Statute 2477**

In 1866, Congress enacted a law to provide and protect access across federal lands for miners and others reliant upon water to earn their livelihood. Section 8 of Revised Statute 2477 (“R.S. 2477”) provided simply that, “the right-of-way for the construction of highways over public land, not reserved for public uses, is hereby granted” (the Act of July 26, 1866, § 8, ch. 262, 14 STAT. 251, 253 (1866) (formerly codified at 43 U.S.C. § 932)). The grant was originally section 8 of the Mining Act of 1866, which became section 2477 of the Revised Statutes; hence the grant is commonly referred to as R.S. 2477. Converse County miners and ranchers developed such rights-of-way in the form of roads and trails, which continue to be used today.

The grant is self-executing and an R.S. 2477 right-of-way comes into existence “automatically” when the requisite elements are met (*See, Shultz v. Dep’t of Army*, 10 F.3d 649, 655 (9<sup>th</sup> Cir. 1993)). One hundred and ten years after its enactment, R.S. 2477 was repealed with the passage of the Federal Land Policy and Management Act of 1976 (“FLPMA”), 43 U.S.C. § 1701 *et seq.* *See*, 43 U.S.C. § 932, repealed by Pub. L. No. 94-579, § 706(a), 90 STAT. 2743, 2793 (1976). Even though FLPMA repealed R.S. 2477, FLPMA explicitly preserved any rights-of-way that existed before October 21, 1976, the date of FLPMA’s enactment (*See*, 43 U.S.C. § 1769(a) (stating that nothing “in this subchapter shall have the effect of terminating any right-of-way or right-of-use heretofore issued, granted, or permitted”) (*see also*, 43 U.S.C. § 1701, Savings Provision (a) and (h)). Therefore, R.S. 2477 rights-of-way which were perfected prior to October 21, 1976 are valid even after the repeal of R.S. 2477. In order for a road to qualify as a R.S. 2477 right-of-way in Wyoming, the road must have been established by a board of county commissioners under the procedures established in Wyoming’s county road statutes. *See Yeager v. Forbes*, 78 P.3d at 254.

Coordination between the government agency and the holder of the R.S. 2477 right-of-way is a necessity. The courts have clearly stated that both the holder of the dominant and servient estate must exercise their rights to not interfere with the other. *SUWA*, 425 F.3d at 746 *citing* *Hodel*, 848 F.2d at 1083. Thus, there must be a system of coordination between the federal agency and the holder of the R.S. 2477 right-of-way whenever there may be an action that may affect the rights or use of the other. *Id.* The repeal of R.S. 2477 “froze” the scope of the R.S. 2477 right-of-way. Thus, the scope of the R.S. 2477 right-of-way is limited by the established usage of the route as of the date the repeal of the statute (*Southern Utah Wilderness Alliance v. Bureau of Land Management*, 425 F.3d 735, 746 (10<sup>th</sup> Cir. 2005, as amended 2006)). In relation to the roads at issue here, this scope would be access to, and between private land sections. Further, the courts have also clearly demarcated that use of an R.S. 2477 right-of-way is a question of scope on a case-by-case basis, considering state law, that will allow for the use that is reasonable and necessary for the type of use to which the road has been put until 1976. *SUWA*, 425 F.3d at 746. This, however, does not mean that the road had to be maintained in precisely the same condition it was in on October 21, 1976; rather, it could be improved “as necessary to meet the exigencies



of increased travel,” so long as this was done “in the light of traditional uses to which the right-of-way was put” as of repeal of the statute in 1976. *Hodel*, 848 F.2d at 1083.

As discussed earlier, an R.S. 2477 grant is self-executing and the right-of-way comes into existence “automatically” when the requisite state law elements are met (*See, Shultz v. Dep’t of Army*, 10 F.3d 649, 655 (9<sup>th</sup> Cir. 1993)). Thus, adjudication of R.S. 2477 rights is not a prerequisite to their existence unless the agency contests the existence of the grant. In cases where the federal agency contests the existence of an R.S. 2477 right-of-way, a claim against the United States would need to be made under the Quiet Title Act (28 U.S.C.A. § 2409a). The Quiet Title Act provides that the United States may be named as a party defendant in a civil action to adjudicate a disputed title to real property in which the United States claims an interest, other than a security interest or water right (28 U.S.C.A. § 2409a(a)). In such an action, a plaintiff must demonstrate with particularity the nature of the right, title, or interest which the plaintiff claims in the real property, the circumstances under which it was acquired, and the right, title, or interest claimed by the United States (28 U.S.C.A. § 2409a(d)).

### ***Federal Agencies***

The BLM and USFS both have specific provisions they must follow when considering the closure of roads and trails. A requirement of these provisions is that such activity be conducted in coordination with the County prior to such action being taken. Road closures in Converse County without prior coordination with the County could cause economic harm and impact citizen and visitor enjoyment of the County’s natural resources.

### ***U.S. Forest Service***

Federal lands managed by the USFS in the County are to be managed for multiple-use and sustained-yield uses (16 USC §1601(d)) (Multiple-Use Sustained-Yield Act of 1960, 1960) including, but not limited to agriculture (farming, irrigation, livestock grazing); recreation (motorized and non-motorized transport and activities, such as hunting, fishing, water and land sports, hiking, etc.); industry (mining, power production, oil and gas production/exploration, and timbering); intangible values (historical and cultural sites, access to open space, aesthetic values, conservation); and weed, pest, and predator control.

The USFS is directed to coordinate the preparation of Travel Management Plans with the County (36 CFR § 212).

*The responsible official shall coordinate with appropriate Federal, State, County, and other local governmental entities and tribal governments when designating National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to this subpart. (36 CFR § 212.53)*

*Designations of National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to §212.51 may be revised as needed to meet changing conditions. Revisions of designations shall be made in accordance with the requirements for public involvement in §212.52, the requirements for coordination with governmental entities in §212.53, and the criteria in §212.55. (36 CFR § 212.54)*



### *Inventoried Roadless Areas*

Inventoried Roadless Areas (IRA) are portions of National Forest that were identified in the USFS 2001 Roadless Area Conservation Final EIS as lands without roads that are worthy of protection. Construction and reconstruction of roads is prohibited in roadless areas unless the USFS determines the road is necessary to protect public health and safety or otherwise meets one of the exceptions listed in the rule. These lands are to be periodically evaluated for potential designation as wilderness based on the availability, capability, and need for these areas to be designated as such. Characteristics of roadless areas include things such as natural landscapes, high scenic quality, and traditional cultural properties. To preserve the characteristics of IRAs, logging has been restricted in these areas.

IRAs exist in small areas of the TBNG in the northeastern corner of Converse County. A map of these areas can be found [here](#)<sup>18</sup>. The IRAs designated within Converse County are IRAs that allow road construction and reconstruction.

### *Bureau of Land Management*

BLM land is enjoyed by the public for numerous recreational activities. The BLM must follow various federal laws regarding the management of transportation and travel on federal lands. FLPMA is the BLM's governing document outlining the management responsibilities of the BLM to balance public access and multiple-uses with the protection and preservation of the quality of the lands and its resources (FLPMA, 1976). Due to the importance of transportation when making the balance of preservation with multiple use management, the BLM must now incorporate travel and transportation management decisions into all new and revised RMPs to address needs about resource management and resource use goals and objectives. BLM M-1626 Travel and Transportation Management Manual, 3-1 (09/27/2016). Travel Management Plans (TMPs) are the primary implementation-level decision documents laying out the management of BLM's travel network and transportation systems. All decisions made in TMPs are implementation-level decisions and should be tied to the goals, objectives, and management actions contained within the RMP (*Id.* at 4-1). The BLM is required to coordinate "inventory" with the County (43 USC § 1712). NEPA requires that federal projects and land use decisions, including opening and closing of roads, to go through an environmental review process.

Federal law also authorizes rights-of-way across federal land under the Alaska National Interest Lands Conservation Act (ANILCA) or Title 5 of FLPMA. Under FLPMA, the applicant must pay cost-recovery fees to process the permit and full market value of the easement, unless the applicant is a county. Mineral lessees are entitled to access under the terms of a mineral lease.

Other travel paths outside of roads are also managed by the BLM. The Taylor Grazing Act when established provided for the establishment, maintenance, and use of stock trails within established grazing districts to ensure livestock could get from one area to another while still have forage and water available (43 U.S.C. § 316). The National Trails System Act falls under the purview of the National Park Service and has defined the standards and methods by which additional trails may be added to the trails system including scenic, historic, and recreational





trails. Both the BLM and the Forest Service have land management responsibilities for portions of trails that cross the surface of those respective federal lands.

### **3.2.3 Transportation and Land Access Resource Management Objectives:**

- A. There is full and open access to and across Converse County federal lands for local purposes such as safety, health, economic use, and recreation.
- B. Access to public lands within Converse County is maintained and expanded where possible.
- C. Private property rights are protected in Converse County while facilitating rights of access.

### **3.2.4 Transportation and Land Access Priority Statements:**

1. Converse County supports designation of all currently open motorized and nonmotorized trails, rights of way, and roads as open transportation network.
2. No road, trail, or RS 2477 right of way within Converse County shall be closed unless public safety or health demands its closing and the proper analysis and disclosure, in consultation with the County and private property owners, is completed prior to closure.
3. Converse County requests that any planning process or activity that restricts, eliminates, or increases access to federal or state lands first notify and allow the County to initiate coordination and cooperating agency status to resolve any potential conflicts with the County's objectives, principles, and policies, prior to taking action.
4. Federal agencies should work with Converse County to reserve stock trails as valid access routes for the purpose of trailing livestock between grazing areas.
5. All formally established Bureau of Land Management and U.S. Forest Service public roads and rights of way shall be considered valid unless formally abandoned, even if not presently maintained. Public trails shall be considered "public roads and highways."
6. Converse County considers any long term (greater than 6 months) road closure a major federal action that significantly affects the quality of the human environment. Thus, a road on federal lands may not be closed until a full NEPA analysis has been completed including public review and coordination with Converse County. Should the agency believe that a road closure falls under a categorical exemption, the County shall be consulted.
7. Converse County should be notified of any temporary road closures.
8. Converse County supports legal public access to the federal lands for all beneficial uses as long as it does not infringe on private property rights.
9. It is the desire of Converse County to keep all forest roads within the designated 2001 Roadless Area Conservation Rule, so there is no net loss of roads within these designated areas.
10. Ensure that rail crossings meet or exceed the minimum safety requirements (as adopted by the Wyoming State Highway Department and/or Converse County) to provide for any increased activity at rail crossings.
11. Development adjacent to transportation systems should have proper setback and safety requirements to ensure safety of life and property.
12. Transportation systems that have deteriorated due to neglect or other causes should be upgraded to minimize the threat to adjacent life or property.





13. Proposals for increased uses on federal and state managed lands should only be approved when it can be shown that those uses provide adequate access on dedicated public lands.
14. Federal agencies should continue to work with Converse County to develop a comprehensive inventory of all existing and historic Forest Service and Bureau of Land Management system and non-system roads/trails, and rights-of-way in Converse County.
15. Access to databases and GIS systems should be shared among all local, federal, and state government agencies in the area. Federal agencies should assist in ensuring there is a county road system that is safe and requires a minimum of maintenance to serve those activities and developments in rural areas.
16. Activities and/or developments that increase demand on county roads should be required to enter into a road use agreement with Converse County.
17. Access to and/or across federal, state, or county managed lands within Converse County should not entail encumbrances or restrictions on private property.
18. Unless there are health and safety concerns, federal agencies should give priority to adequately maintaining roads and trails on federally managed lands, rather than using those maintenance funds on other activities such as road or trail decommissioning.
19. Converse County supports potential State efforts to petition the U.S. Forest Service for a Wyoming specific Roadless Rule.
20. Restrictive management of roadless areas is discouraged by Converse County and multiple uses should instead be allowed.
21. Converse County supports construction of temporary roads necessary to service natural resource development.
22. Federal agencies should obtain County approval before decommissioning existing roads on federally managed lands.

### **3.3 SPECIAL DESIGNATION AND MANAGEMENT AREAS**

#### **3.3.1 History, Custom, and Culture**

There are no special designation or management areas within Converse County. There are two historic trails. An overview of different special designation and management areas is provided below.

#### **3.3.2 Resource Assessment and Legal Framework**

##### ***Areas of Critical Environmental Concern (ACEC)***

Areas of Critical Environmental Concern (ACEC) are BLM-managed areas “where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources (BLM, 2016a). An ACEC may also be designated to protect human life and safety from natural hazards (BLM, 2016a). An ACEC designation must go through the NEPA land use planning process. An ACEC designation may be revisited through subsequent land use planning, revision, or amendment. ACECs and other special designations may compete with the natural resource-based businesses that are important to the County’s economy, like grazing and mining.



There are currently no designated ACECs within Converse County.

### ***Historic Trails***

There are two historic trails that cross through parts of Converse County: the Oregon Trail and the Bozeman Trail. These trails were major thoroughfares for westward expansion, military campaigns, and the goldfields of California, Idaho, and Montana in the 1800s.

### ***Lands with Wilderness Characteristics***

Section 201 of FLPMA requires the BLM to maintain, on a continuing basis, an inventory of all federal lands and their resources and other values, which includes wilderness characteristics. It also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of federal lands. It does not address or affect policy related to Congressionally designated Wilderness or existing Wilderness Study Areas.

The BLM uses the land use planning process to determine how to manage lands with wilderness characteristics as part of the BLM's multiple-use mandate. The BLM will analyze the effects of:

- Plan alternatives on lands with wilderness characteristics, and
- Management of lands with wilderness characteristics on other resources and resource uses.

There are no LWCs within Converse County.

### ***Special Recreation and Extensive Recreation Management Areas***

The BLM's land use plans may designate Special Recreation Management Areas (SRMAs) or Extensive Recreation Management Areas (ERMAs) to provide specific management for recreation opportunities, such as developing trailhead area for hikers, mountain bikers, or off-road vehicle users.

SRMAs are BLM administrative units where a commitment has been made to prioritize recreation by managing for specific recreation opportunities and settings on a sustained or enhance, long-term basis. SRMAs are managed for their unique value, importance, and/or distinctiveness; to protect and enhance a targeted set of activities, experiences, benefits, and desired resource setting characteristics; as the predominant land use plan focus; to protect specific recreation opportunities and resource setting characteristics on a long-term basis. ERMAs are administrative units managed to address recreation use, demand, or existing Recreation and Visitor Services. There are no SRMAs or ERMAs within Converse County.

### ***Visual Resource Management***

The BLM is responsible for managing the public lands for multiple uses and ensuring that the scenic values of public lands within their management are considered when providing for various uses. The BLM's Visual Resource Management (VRM) system involves inventorying scenic values and establishing management objectives for those values through the resource management planning process. VRM classifications for Converse County were defined in the Casper Field Office Resource Management Plan and the map can be found [here](#)<sup>19</sup>.



### *Wild and Scenic Rivers*

The National Wild and Scenic Rivers System was created in 1968 to preserve naturally, culturally, and recreationally valued rivers. Rivers are designated for the National Wild and Scenic River System by Congress or, in certain situations, the Secretary of Interior. There are currently 408 miles of rivers and streams designated as wild and scenic in Wyoming. (National Wild and Scenic Rivers System, n.d.-b) There are currently no rivers in Converse County designated or proposed as wild, scenic, or recreational within the National Wild and Scenic Rivers System (National Wild and Scenic Rivers System, n.d.-a, n.d.-b).

### *Wilderness Study Areas*

The Wilderness Act of 1964 established the National Wilderness Preservation System to be managed by the USFS, NPS, and the USFWS. The passage of FLPMA in 1976 added the BLM as a wilderness management authority to the Wilderness Act. Wilderness areas must have “wilderness character”, which is described with four qualities. Wilderness Study Areas (WSAs) are places that have wilderness characteristics; (i.e.: untrammeled, natural, undeveloped, and outstanding opportunities for recreation) which make them eligible for future designation as wilderness (BLM, 2016b).

The four characteristics that must be met for designation as a WSA or Wilderness Area:

1. The area must be untrammeled by man. Untrammeled refers to wilderness as an area unhindered and free from modern human control and manipulation. Human activities or actions on these lands impairs this quality.
2. The area must be natural. The area should be protected and managed to preserve its natural conditions and should be as free as possible from the effects of modern civilization. If any ecosystem processes were managed by humans, they must be allowed to return to their natural condition.
3. The area must be undeveloped. No human structures or installations, no motor vehicles or mechanical transport, or any other item that increases man’s ability to occupy the environment can be present.
4. The area must offer solitude or primitive and unconfined recreation. People should be able to experience natural sights and sounds, remote and secluded places, and the physical and emotional challenges of self-discovery and self-reliance.

WSAs are established three different ways: (1) they are identified by the wilderness review as required by Section 603 of FLPMA; (2) they are identified during the land use planning process under Section 202 of FLPMA; (3) or they are established by Congress.

Section 603(c) of the FLMPA requires that WSAs are managed so as not to impair their suitability for preservation as wilderness and strives to retain their primeval character and influence, without permanent improvements or human habitation (BLM, 2016b). However, the FLPMA also requires that mining, livestock grazing and mineral leasing (e.g., grandfathered uses) continue in the manner and degree as they were being conducted in 1976. Therefore, to the extent that grazing was allowed in the wilderness prior to 1976, its use, specifically including allowing the same number of livestock as existed in 1976, should be continued. Grandfathered uses are



protected and must be maintained in the same manner and degree as they were being conducted on October 21, 1976, even if they impair wilderness characteristics according to *Rocky Mountain Oil and Gas Association v. Watt*, 696 F.2d 734, 749 (10th Cir. 1982). This requirement includes the authority to develop livestock related improvements (*Utah v. Andrus*, 486 F. Supp. 995 [D. Utah 1979]).

There are no Wilderness or Wilderness Study Areas within Converse County.

### ***America the Beautiful (30 x 30)***

On January 7, 2021, President Joe Biden signed Executive Order 14008 entitled Tackling the Climate Crisis at Home and Abroad. Section 216 of the E.O. required the Secretary of Interior in consultation with the Secretary of Agriculture, the Secretary of Commerce, the Chair of the Council on Environmental Quality, and the heads of other relevant agencies, to submit a report within 90 days of the date of the E.O. recommending steps that the United States should take, working with State, local, Tribal, and territorial governments, agricultural and forest landowners, fishermen, and other key stakeholders, to achieve the goal of conserving at least 30 percent of our lands and waters by 2030. The Biden Administration believes that only 12% of US land is considered to be conserved, thus additional uses would have to be eliminated or private and state lands would have to be acquired to achieve 30x30 (U.S. Department of the Interior, 2021). It is estimated that an additional 440 million acres would have to be acquired by 2030. On May 6, 2021 the preliminary report ordered by E.O. 14008 was released (U.S. Department of the Interior et al., n.d.). The report identified eight primary principles the agencies were going to follow in pursuing President Biden’s 30x30 goal. Conserving and Restoring America the Beautiful p. 13-16. Those principles include:

1. Pursue a collaborative and inclusive approval to conservation.
2. Conserve America’s lands and waters for the benefit of all people.
3. Support locally led and locally designed conservation efforts.
4. Honor tribal sovereignty and support the priorities of tribal nations.
5. Pursue conservation and restoration approaches that create jobs and support healthy communities.
6. Honor private property rights and support the voluntary stewardship efforts of private landowners and fishers.
7. Use science as a guide.
8. Build on existing tools and strategies with an emphasis on flexibility and adaptive approaches.

Additionally, the report recommended the creation of an American Conservation and Stewardship Atlas. The Atlas would be an accessible, updated, and comprehensive tool through which to measure the progress of conservation, stewardship, and restoration efforts across the United States in a manner that reflects the goals and principles of 30x30. Conserving and Restoring America the Beautiful p. 17. The American Conservation and Stewardship Atlas would aggregate information from these databases and others, supplement this information with information from the States, Tribes, public, stakeholders, and scientists, and provide a baseline



assessment of how much land, ocean, and other waters in the U.S. are currently conserved or restored, including, but not necessarily limited to:

- 1) The contributions of farmers, ranchers, forest owners, and private landowners through effective and voluntary conservation measures;
- 2) The contributions of Fishery Management Councils and their conservation measures under the Magnuson-Stevens Fishery Conservation and Management Act; and
- 3) The existing protections and designations on lands and waters across Federal, State, local, Tribal, and private lands and waters across the nation.

Finally, the report created six goals that the agencies should provide its early focus on to achieve 30x30. Conserving and Restoring America the Beautiful p. 18-21. Those goals include:

- 1) Create more parks and safe outdoor opportunities in nature deprived communities.
- 2) Support tribally led conservation and restoration priorities.
- 3) Expand collaborative conservation of fish and wildlife habitats and corridors.
- 4) Increase access for outdoor recreation.
- 5) Incentivize and reward voluntary conservation efforts of fishers, ranchers, farmers, and forest owners.
- 6) Create jobs by investing in restoration and resilience.

To date there has been no substantive guidance as to what lands or uses will qualify under 30x30.

### **3.3.3 Special Designation and Management Area Resource Management Objectives:**

- A. Designation and management of special designation or management lands are coordinated with Converse County and adjacent landowners.
- B. No new special designation or management areas are created in Converse County without specific approval from the County and adjacent or affected landowners.

### **3.3.4 Special Designation Area Priority Statements:**

1. Any proposed special management area designation shall undergo analysis of the impact to Converse County's custom, culture, and economy.
2. If any special designation or management areas are created, federal management of special designation areas shall be coordinated with Converse County and consistent to the maximum extent possible with the Converse County Natural Resource Management Plan.
3. Federal agencies should support the use of and various application methods of herbicides to control noxious weeds in special designation and management areas as allowable.
4. Converse County does not support future designations of new special management or designation areas in the County, including, Wild and Scenic Rivers, Wilderness, or Wilderness Study Areas, lands with wilderness characteristics, Areas of Critical Environmental Concern, Roadless Areas. Any proposed designation shall be coordinated with the County and undergo analysis of the impact to Converse County's economy including a pre-existing condition analysis.



5. Any unsuitable rivers should be removed from Wild and Scenic River consideration at the earliest opportunity.
6. State and federal planning actions that affect the visual resource and Visual Resource Management classifications that affect land uses should be coordinated with Converse County.
7. Converse County should be consulted on any buffer zones implemented for the protection of special designation and management areas.
8. No new historic trail designations will be created or pursued in Converse County without the County's consent.
9. Federal agencies should consult with Converse County when evaluating whether lands and the multiple uses on them qualify as "conserved lands" under 30x30.
10. Protecting private property rights should be the greatest priority when attempting to fulfill the 30x30 goals outlined in Executive Order 14008.
11. Federal agencies shall not use coercive actions or the threat of condemnation to acquire land to achieve their 30x30 goals outlined in Executive Order 14008.
12. Unless lands or waters are given a special management or designation in a respective agency's planning document, all public lands in Converse County should be managed for multiple use as outlined in the Multiple Use Sustained Yield Act and Federal Land Policy Management Act.



## 3.4 WILDFIRE MANAGEMENT

### 3.4.1 History, Custom, and Culture

Wildfire is defined as an unplanned, unwanted fire that spreads rapidly and is difficult to extinguish. This includes accidental human-caused fires, unauthorized human-caused fires, escaped fires used as a management tool, and naturally occurring fires. Coal-seam fires have also occurred within Converse County. Wildfires have had catastrophic effects in Converse County, including severely damaging the County watershed, timber, grazing lands, wildlife habitat, and recreational activities that rely on healthy forests and rangelands in addition to endangering human health and safety and lost economic opportunities (Figure 3).

### 3.4.2 Resource Assessment and Legal Framework

Converse County is vulnerable to unplanned wildland fires in some areas due to its semi-arid climate, available fuels, and rural character. Wildfires generally occur somewhere within the County on an annual basis. Wildland fires within the County have the potential to damage crops and watersheds and contribute to soil erosion and deposition problems.

The County develops an annual operating plan between BLM, Wyoming State Forestry Division, and Converse County that provides details of the Wyoming interagency cooperative agreements by outlining the specific fire zones that Converse County supports, either primarily or as a secondary responder. The Converse County Mountain Community Wildfire Protection Plan (CCMCWPP) was last updated in 2018 and serves to establish community wildfire hazard reduction priorities, make recommendations for reducing wildfire hazards, and develop a plan of action to carry out the recommendations. The CCMCWPP can be found [here](#)<sup>20</sup>.

Fire suppression policy should be guided by the need to achieve the highest level of protection for human safety and private property. Fire suppression may be necessary in areas where fire would endanger human safety and private property or valuable vegetation that supports and expands multiple uses or threatens habitat of sensitive species. On rangeland and grassland areas, the combination of weather, drought and reduced use can also lead to fuel loading that facilitates larger, more intense wildfires.

Proactive planning for response to a wildland fire event is critical to the protection of Converse County; its citizen's health, safety, welfare, and private property; and forest and rangeland health. A high degree of coordination between federal, state, and local agencies is necessary for maximum prevention and suppression of unplanned wildfire.





**Table 2. Fire occurrences over 100 acres in Converse County from 2000 to 2020. Fire acreages are only the extents within Converse County borders.**



<b>Year of Fire</b>	<b>Fire Name</b>	<b>Acreage</b>
2002	Hensel	10,041
2003	Lake Creek	1,028
2003	Horse	121
2003	Cheyenne River	107
2006	Twenty Mile 2	11,647
2006	Sawmill	6,282
2006	Walker	2,752
2006	Cheyenne River	2,262
2006	Twenty Mile	548
2006	Sand Hills	197
2010	Orpha	25,125
2010	Geary Dome	2,287
2011	Carson	5,293
2011	Converse 12	1,853
2011	CFO 2	769
2011	Steckley	453
2011	State 7	216
2011	Beckwith	185
2011	East Riehle	149
2012	Little Boxelder	6,506
2012	Russell's Camp	5,472
2012	Sand Creek	1,045
2012	Arapaho	403
2015	Wagon Hound	1,011
2016	Walker Creek	692
2016	Ross Road	267
2017	Sand Creek	364
2017	Wold	314
2017	Horse Pasture	249
2018	West Tillard	3,783
2018	Logan Draw	583
2018	Bixby	247
2019	Alta Creek	116
2020	Lake Creek	778
2020	Antelope Creek	593
2020	Cheyenne River	145



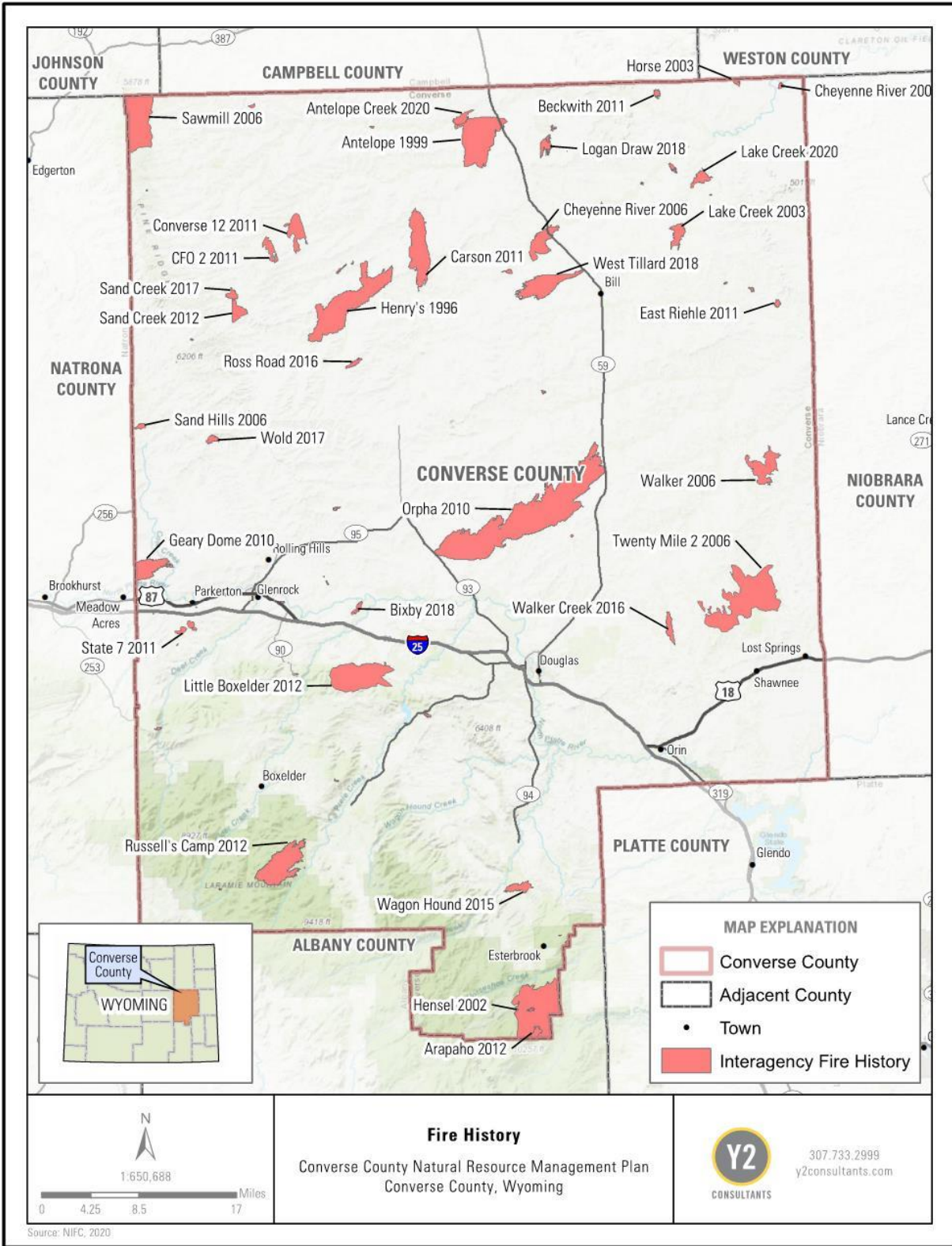


Figure 3. Fire history of Converse County.



### **3.4.3 Wildfire Management Resource Management Objectives:**

- A. Wildfire, fuels, and fire rehabilitation are managed promptly and effectively using credible data in coordination with the Converse County Mountain Community Wildfire Protection Plan.
- B. Fire suppression efforts in Converse County are implemented effectively and proactively as appropriately determined, through full coordination, communication, and cooperation between federal, state, local fire-suppression units, and emergency response teams.

### **3.4.4 Wildfire Management Priority Statements:**

- 1. Federal agencies shall coordinate with local fire agencies in Converse County on wildfire planning, management, and suppression.
- 2. Efforts in fire prevention, control and fire suppression in rural areas of Converse County shall be coordinated among federal, state, and local agencies.
- 3. In addition to aiding state and local rural fire prevention and control programs, the Secretary of Agriculture and Interior shall provide prompt and adequate assistance whenever a rural fire emergency overwhelms or threatens to overwhelm the firefighting capability of the affected state and rural area.
- 4. Federal agencies shall incorporate local fire association plans and Wyoming State Forestry Plans into their fire suppression and control plans and support efforts of local fire departments in wildfire suppression activities.
- 5. Federal agencies should coordinate and communicate temporary fire restrictions based on fire hazard designations to minimize the potential for human caused wildfires.
- 6. Federal agencies should promote the prompt rehabilitation of harvested areas and areas affected by wildfire, including the use of salvage logging operations.
- 7. Converse County encourages the Secretaries of Agriculture and Interior to develop fire management policies that utilize and acknowledge the beneficial effects of planned grazing as a fuels management tool.
- 8. Federal agencies should consult and coordinate with Converse County on proposed changes and updates to Fire Management Plans on federal lands.
- 9. Federal agencies should participate in consideration of a limited and judicious use of wildfire, rather than favoring a “let it burn” policy, in areas where invading and expanding shrubs and trees are reducing the value of rangeland resources.
- 10. Post-fire objectives shall be consistent with site potential as defined in approved Desired Future Conditions or Ecological Site Descriptions. Converse County requires the use of credible data as previously defined in Chapter 1 to make these determinations.
- 11. Federal agencies should rehabilitate forests and rangelands damaged by wildfires as soon as possible for habitat, wildlife, and to reduce the potential for erosion and introduction of invasive or noxious weeds.
- 12. Converse County encourages fire suppression in areas where fire would endanger human safety, private property or valuable vegetation that supports and expands multiple uses and/or provides critical habitat for sensitive species.



13. Federal agencies should coordinate with State and local agencies to implement fire control tools such as insecticide and herbicide treatments, chemical or mechanical controls, livestock grazing, biomass fuel removal, slash pile burning, prescribed burning, and encouraging knowledgeable and prepared practices to create defensible space around buildings.
14. Initial post-fire monitoring data should be collected within two growing seasons of the fire and can be collected outside the agency if the appropriate monitoring protocols and credible data criteria are followed.
15. Federal agencies should allow for adaptive grazing management practices and include these practices in term permits to allow for flexible management practices that will decrease fine fuel loads on the landscape, particularly in areas with heavy grass understory.
16. When planning prescribed burns, where feasible, market timber resources while reserving desirable seed trees, before burning.
17. Fire should not replace timber harvest and other extractive uses as a primary forest management tool.
18. Planned prescribed burns on the Thunder Basin National Grassland must be coordinated with Converse County during the planning process for each burn season and no prescribed burns are to be conducted during periods of high fire danger.
19. Federal agencies should facilitate the use of prescribed fire and other approved methods to manage sagebrush, control weeds and tree encroachment, and to enhance, maintain, or increase current grazing levels.



## 3.5 FOREST, GRASSLAND, AND RANGELAND MANAGEMENT

### 3.5.1 History, Custom, and Culture

#### *Forest Management*

The beneficial use of forest natural resources has always been a part of Converse County's economy, customs, and culture. Early citizens relied on forest resources for timber for buildings, corrals, fences, and fuel. Logging occurred through the years on both federal and private lands. Converse County recognizes that historic logging took place within the County as part of a historic stable timber-harvesting program. A healthy forest ecosystem provides employment and economic benefit for individuals and businesses in the County.

#### *Grassland Management*

In the latter half of the 19<sup>th</sup> century, Congress incentivized the settlement of the West. The Homestead Act of 1862 authorized the disposition of 160-acre parcels of federal land to qualified individuals. To receive a patent on a parcel of land, a homesteader was allowed six months to establish a residence on the land. Upon establishing a residence, actual settlement and cultivation of the land was required for five years to receive a patent. However, much of the most valuable land in the West was already controlled by several entities including states, tribes, and the railroad, and was thus unavailable for homesteading (Eric Olson, United States Department of Agriculture *National Grasslands Management: A Primer*, 4 (Nov. 1997)). Also, the 160-acre promised under the Homestead Act were too little for viable farms in most of the arid West and much of the land was ill-suited for farming due to the low levels of precipitation in the area. (*Id.* at 5)

Despite these difficulties, many people came to the West seeking the promise of free land. By 1904, nearly 100 million acres of land was homesteaded by 500,000 farms in the West. At the turn of the 20<sup>th</sup> Century, up until 1920, a land boom occurred in the West due to high commodity prices. The Thunder Basin experienced this same boom during the first World War years. For example, Wyoming wheat production rose from 2.2 million bushels in 1913 to 6.6 million in 1918 (William Fischer, *Homesteading the Thunder Basin: Teckla, Wyoming* 71 ANNALS OF WYOMING 21, 22 (Winter 1999)).

After the end of World War I, demand for commodities plummeted even though supply continued to grow. This fact is shown best in Wyoming where during the years 1919-1921, the commodity prices plummeted despite the highest number of homestead entries in Wyoming. *Id.*

With the steady increase in settlement also came massive droughts across the Great Plains. The continued cultivation of unproductive farms in sub-marginal lands damaged natural soil and water resources. As a result, many operations failed in the 1920s, and these failed farms were abandoned. *Id.* Things worsened when, during the Great Depression, an influx of new people settled in the West. The influx only exacerbated the issues facing those farmers already settled. Eric Olson of the National Forest Service summarized the situation succinctly:

Foreclosures multiplied, tax delinquencies increased, and farm incomes dwindled. To complicate matters further, the economic hardships suffered by many farmers during





this time were accompanied by devastating natural events like droughts, floods, insect infestations, and erosion. In retrospect, it became apparent that thousands of farm families had been living in poverty on sub-marginal land long before the advent of the Great Depression and the Dust Bowl. These twin events made farming, already a difficult lifestyle, that much more challenging. For many, the additional challenge was simply too much (Olson, *supra* n. 46).

These challenges also manifested into difficulties for local governments who lost tax revenue. Recognizing the magnitude of the sub-marginal land problem in 1931, the Secretary of Agriculture held the National Conference on Land Utilization. This Board recommended in 1934 that the Federal Government purchase and develop 75 million acres of sub-marginal lands throughout the country. The main objective of these acquisitions would be to “supplement the assistance to private forestry, and erosion control work” already underway and demonstrate how these sub-marginal lands could be used to serve the public (Wooten, 1965). Although a project as ambitious as acquiring 75 million acres of sub-marginal land was never accomplished, land utilization efforts began as early as 1934.

Following the guidelines of “converting the land purchased to a use beneficial to the people of the United States,” the primary purposes of the LUPs at the time were to retire sub-marginal land from agricultural use (i.e., farming) and develop it for uses to which the land was better suited (*Id.* at 6). When assessing how to develop sub-marginal land to better uses, there was an emphasis to address three major problems:

- 1) The damage of soil and water resources, forest, and grass cover through erosion and the improper use of land;
- 2) The waste of human resources through the dependence of rural people upon land not suitable for agricultural production; and
- 3) The loss of financial resources by State and local governments through the excessive costs of public services in sub-marginal areas where tax returns were too meager or uncertain to cover those costs (Wooten, 1965).

For the West, the purpose of the land program was to see the semi-arid land originally used for arable farming to transition to grazing (Wooten, 1965). There were several instances in which this purpose of the LUPs in the Western Great Plains states was made clear. The May 1935 Final Plan for ND-2 (later known as the Little Missouri National Grassland) stated, “The purpose of the project is to remove sub-marginal lands from commercial grain production and shift them to a grazing use” (Cunfer, 2001). The General Development Plan for ND-1 also reflected this sentiment stating, “The purpose of the project is to remove low grade crop lands from commercial grain production and shift them to a grazing use for which they are best fitted” (Cunfer, 2001). The Thunder Basin program reflected a similar sentiment, stating that the program sought to bolster “economic independence and stability in the area by adjusting the population to the productivity of the land” (Fischer, *supra* n. 50 *citing* Land Use Summary Report for Project LA-WY-I, (30 June 1937?)). To further show this intent, the planning document for the Thunder Basin Land Utilization Project stated that the purpose of WY-LU-1 was “grassland agriculture’ which is for





livestock grazing and the economic stability of the local ranches” (WY-LU-21, Douglas, Wyoming (May 25, 1943) copy located in the Douglas Ranger District Office).

Congress also acknowledged the Land Utilization Program’s objective. During the conference report for the Bankhead-Jones Farm Tenant Act, Congressman Coffee from Nebraska summarized Title III of the BJFTA:

*Under Title III, funds are authorized for the purchase by the Government of sub-marginal land. This would be a continuation of the present program and in many States additional purchases are necessary to lock together the purchases already made. The objective is to retire this sub-marginal land from unprofitable crop production and to turn it back to grass and into grazing and forest areas (H.R. Rep. No. 1198 at 1937 (1937) (emphasis added)).*

Another purpose of the LUPs was to transition grazing in the area to a more organized function, shifting the grazing operations from “uneconomical” small operators to landowners capable of effectively raising livestock in the area. Professor Cunfer broke down this three-step process:

*The first step was to purchase sub-marginal lands. This was the most decisive way to acquire control over their use, and there were plenty of willing sellers. The second step was resettlement-moving “uneconomical” small operators out of the area. Third came range rehabilitation, which encompassed revegetation of plowed land, restoration of overgrazed range through resting, elimination of logical pasture units through rational fencing, and water development. Water would be key to the success of stage four: controlled grazing by remaining middle-class stock raisers. Fewer operators would have larger, more economical ranches. The government would ensure that no more cattle were put on the grass than could be supported sustainably (Cunfer, supra n. 57 at 201-2 citing "Little Missouri Land Adjustment Project: Proposal for Extension to Site No. 2," 12 November 1934, LUP Papers, box 322; M. B. Johnson, "Submarginal Land Program Memorandum of Proposed Project," 28 December 1934, LUP Papers, box 322; "Final Plan").*

The LUPs also sought out control of the grasslands by entrusting local management to local grazing associations. At the time of inception, Grazing Associations operated as permittees of the Soil Conservation Service. The Grazing Associations, in turn, issued grazing permits to their members, who were local ranchers. The associations were controlled by boards, which were elected by the membership. This process allowed local people to administer grazing privileges in accordance with the Soil Conservation Service rules and procedures. Additionally, Grazing Associations had their own bylaws, which provided for membership qualifications, meeting dates, election of officers, and general operating policies.

The Grazing Associations helped accomplish the LUP’s ultimate goals of ensuring that the land would be utilized in a sustainable way with the land being used for the best purpose of transitioning the land from farming to grazing. Further, when transitioned to grazing, there needed to be a degree of sustainability that would prevent soil erosion and overgrazing on the



project lands. Adding the two purposes together, the goal of the LUPs is best summarized by a statement the U.S. Department of Agriculture’s Economic Research Service:

*The highest purpose of the National Grasslands is to serve as demonstration areas to show how lands classified as unsuitable for cultivation may be converted to grass for the benefit of both land and people in the areas (Wooten, 1965).*

The Thunder Basin was one of the earliest Land Utilization Projects having been created through executive order in 1936. The stated purpose of the Wyoming Land Utilization and Land Conservation Project WY-LU-1 was for “grassland agriculture,” which was intended to bolster “economic independence and stability in the area by adjusting the population to the productivity of the land” (Fischer, *supra* n. 50. 1 citing Land Use Summary Report for Project LA-WY-I, (30 June 1937)).

In 1937, the BJFTA provided more permanent status for the LUPs. The modern BJFTA authorizes the Secretary of Agriculture to create a land conservation and utilization program to be used on National Forest Land to correct “maladjustments in land use,” and ultimately assist in, among other things, controlling soil erosion, reforestation, preserving natural resources, protecting fish and wildlife, and protecting public lands health, safety, and welfare (7 U.S.C § 1010). The Preamble of the BJFTA states that its purpose is to:

*Create the Farmers’ Home Corporation, to promote more secure occupancy of farms and farm homes, to correct the economic instability resulting from some present forms of farm tenancy and for other purposes.*

To carry out the program, the BJFTA allows the Secretary to regulate the use and occupancy of BJFTA land to conserve or utilize the land, or to “advance the purposes” of the Act (7 U.S.C. § 1011(f)). The ultimate guiding principle for the Secretary in carrying out the BJFTA is to protect lands acquired under the BJFTA and to adapt them to their “most beneficial use” (7 U.S.C. § 1011(b)).

On January 2, 1954, the Department of Agriculture gave the authority to National Forest Service to administer the Grassland under the BJFTA (36 C.F.R. § 213.1). Under this regulation, the National Forest Service must:

- Administer the land with “sound and progressive principles of land conservation and multiple use;
- “Promote development of grassland agriculture and sustain yield management” of the various uses in the area (*Id.* at 213.1(c)); and
- Manage national grassland resources “so as to maintain and improve soil and vegetative over, and to demonstrate sound and practical principles of land use for the areas in which they are located (*Id.* at § 213.1(d)).



Although there was originally hesitation by the USFS to continue to run the LUPs as they were intended to be run, with an emphasis on grazing, the Secretary of Agriculture promulgated regulations that solidified the purpose of the National Grasslands in relation to the original LUPs. The regulations served to:

- 1) To reaffirm the promotion of grassland agriculture and sustained-yield management of all land and water resources in the areas of which the grasslands are a part;
- 2) To stress the demonstration of sound and practical principles of land use; and
- 3) To provide that management of the Federal land exerts a favorable influence over associated other public and private lands (Wooten, *supra* n. 54 at 33 *citing* 25 Federal Register 1960, page 5845; 28 Federal Register 1963, page 6268: 213.1)

In guiding its decisions, the National Forest Service must adopt regulations that protect the National Grasslands, as well as adapting them to their “most beneficial use” (7 U.S.C. § 1011(b)). Further, through its regulations, the USFS adopted to multiple-use and sustainable yield approach to its management of the grasslands, but there is a preference that the land ultimately be used for grassland agriculture (36 C.F.R. 213.1(c)).

### ***Rangeland Management***

The rangeland resources in Converse County have also been heavily relied upon for livestock grazing, energy development, recreation, and other uses. In the early 1880s, ranchers began bringing cattle and sheep from as far away as Texas to graze on the area’s grasslands. Livestock grazing to this day remains an important industry in the County. Many of the generational ranches in the area have relied upon the promises made by the government dating back to the early twentieth century. Any disruption in the use of the lands from what it was originally intended would harm the custom and culture of the County. The rangelands within Converse County have also been important resources for the development of the energy industry within the County which has provided significant economic impacts for many years. These areas also maintain large acreages of important wildlife habitat and open space.

In addition to the TBNG, managed out of the Douglas Ranger District, the Casper BLM Field Office is the main land manager of public rangelands within Converse County and have been since the BLM started in 1946.

## **3.5.2 Resource Assessment and Legal Framework**

### ***Forest Management***

A healthy forest ecosystem provides employment, ecosystem services, and economic benefit for individuals and businesses in the County. Proper forest management ensures the protection of natural resources as well as human health and safety within the County by reducing risk in wildland urban interface areas and to communities at-risk to wildfire. Forest products also increase the economic potential within the County. Harvesting of forest products still occurs within the County and includes firewood, posts and pole, Christmas trees, and commercial harvesting.



Forest Management includes proactive measures to maintain the health of forests, provide enhancement opportunities for forest succession, promote optimum timber species on forested areas identified in the Medicine Bow LRMP for forest products or maintenances and restoration considering the historic range of variability. [Table 2-2](#)<sup>21</sup> in the Medicine Bow LRMP describes the selected activities that are permitted or restricted according to management area prescriptions. (USFS, 2003)

### **Grassland Management**

A large portion of the TBNG is in Converse County and managed by the USFS. The TBNG is a productive grassland that provides vegetation that is productive for livestock, wildlife, and other resource uses. The TBNG is managed for sustainable multiple uses as part of the National Forest System. Grasslands are rich in mineral, oil and gas resources and provide for diverse recreational uses such as hiking, hunting, fishing, photographing, birding, and sightseeing.

The TBNG is found along a transition zone between the Great Plains to the east and the sagebrush steppe to the west, and occurs across a gradient of temperature, precipitation, and elevation. The area evolved with disturbance from drought, grazing, fire, and burrowing mammals. The TBNG includes both sagebrush and grassland plant communities which interact with a range of ecological disturbances to support diverse wildlife species.

Vegetation resources may be managed differently on private land, as compared with land managed by State or federal agencies.

Federal law requires the USFS to administer the national grasslands for the purposes for which they were acquired. When the federal government acquires land for a particular public purpose, only Congress has the power to change that purpose or dispose of the acquired land (*Reichelderfer v. Quinn*, 287 U.S. 315, 318–20 (1932)). Thus, federal agencies must manage and administer acquired lands according to the purpose for which the federal government acquired them, unless Congress has authorized otherwise (*Id.*; see also *United States v. Three Parcels of Land*, 224 F.Supp. 873, 876 (D. Alaska 1963); *United States v. 10.47 Acres of Land*, 218 F.Supp. 730, 733 (D.N.H. 1962)).

The clear objective in acquiring lands within the TBNG was to create a sustainable forage cover that would protect the fragile soil, but at the same time keep the communities alive who had been promised use of the land during the homesteading years. The people who remained after the Dust Bowl years worked hard to put the land back to a healthy condition and have relied on the promises given to them that the land would be used for its best use. Congress and officials within the USFS and other agencies involved in the LUPs have historically acknowledged that grazing is the best use for these lands. Thus, when current USFS management principles in the TBNG serve to undermine its primary purpose, those management principles must be revised.

### **Rangeland Management**

Most of the land in Converse County is classified as rangeland with public lands being managed by the BLM. Most of the rangelands and riparian zones in the County support an understory or periodic cover of herbaceous or shrubby vegetation amenable to rangeland management



principles or practices. The principal natural plant cover is composed of native grasses, forbs, and shrubs that are valuable as forage for livestock, big game, other wildlife, and pollinators. Rangeland includes lands revegetated naturally or artificially to provide a plant cover that is managed as native vegetation. Rangelands in the County consist of sagebrush, steppe, grasslands, desert shrublands, and wet meadows. The soil and climate make most of the land best-suited for grass and shrub production, rather than farming. The BLM requires public rangelands to meet or make substantial progress to meet standards, which were developed for Wyoming as the 1997 [Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management](#)<sup>22</sup>.

The encroachment of juniper and pine trees into rangelands can reduce rangeland diversity and productivity. Similarly, the expansion of decadent and old sagebrush over thousands of acres in Converse County threatens multiple uses and the maintenance of healthy rangeland conditions. More aggressive or intensive management of these vegetation communities will enhance and sustain multiple uses and increase rangeland productivity and resilience.

### **3.5.3 Forest, Grassland, and Rangeland Management Resource Management Objective:**

- A. Forest lands, grasslands, and rangelands within Converse County are managed under multiple-use that promotes the timber industry, grazing, fuels management, and recreation and benefits the economy, custom, and culture of Converse County.

### **3.5.4 Forest, Grassland, and Rangeland Management Priority Statements:**

1. Forest, rangeland, and grassland management on public lands within Converse County shall adhere to Multiple Use Sustained Yield Act, as well as the National Forest Management Act, National Environmental Policy Act, and the Endangered Species Act.
2. The Thunder Basin National Grassland shall be managed to serve its primary purpose of creating a sustainable forage cover that would protect the fragile soil and promoting grazing.
3. Converse County encourages active management of forest land, rangeland, and grassland resources on public lands to reduce invasion of unwanted species.
4. Federal agencies should support weed management and mitigation on forest land, rangeland, and grassland federal lands within Converse County.
5. Federal agencies should support salvage harvest when necessary due to insect/disease epidemic, blowdown, or post fire situations using appropriate categorical exclusions.
6. Federal agencies within Converse County should use the authority granted under the Healthy Forests Restoration Act, Healthy Forests Initiative and Good Neighbor Authority to expedite cross-boundary/agency planning, collaboration processes and project implementation to treat and protect timber resources economically and efficiently.
7. Federal agencies should notify and coordinate forest land, rangeland, and grassland management projects with Converse County, state and local agencies, and private landowners to improve the scale and scope of each project.



8. Federal agencies should maintain and restore watershed health within Converse County by demonstrating active rangeland, forest, and woodland management.
9. Federal land managers should continue to plant and develop a wide variety of trees, shrubs, and seedlings to the vegetation community for windbreaks and shelterbelts for aesthetic, wildlife, and agricultural value on public lands within Converse County.
10. Federal agencies should support excluding the maximum area of land possible from single-use or restrictive-use designations, so that excluded land is available for active and sound management.
11. Federal agencies should support site-specific management decisions based on sound science, compliance with the 1997 Wyoming Standards for Healthy Public Rangelands, and Best Management Practices.
12. Federal agencies should ensure that rangeland health assessments identify all the causal factors when there is a failure to meet the 1997 Wyoming Standards for Healthy Rangelands and that livestock grazing uses are not reduced to compensate for or mitigate the impacts of other causal factors.
13. Federal agencies should explore and use vegetation management and harvest methods, where applicable, that enhance wildlife habitat through vigorous new growth and a natural mosaic that reduces fuel loads.
14. Converse County supports the Wyoming Office of State Lands Strategic Plan, with respect to the management of forest resources on private land, to achieve the best long-term return on investment and promote healthy forests.
15. Federal agencies should support and work to identify range management objectives based on site potential, climate, and land uses. Federal agencies should conduct future timber harvest, thinning, and fuel reduction projects on federal and state managed lands as a necessary means to reduce the potential for unnaturally intense wildfires and to restore vibrant and healthy ecosystems to this area.
16. Federal agencies should manage rangelands to maintain and enhance desired plant communities for the benefit of watersheds, wildlife, water quality, recreation, and livestock grazing.
17. Native seed mixes consistent with the appropriate ecological site description and free of noxious weeds and invasive species are encouraged for all reclamation efforts and must be beneficial to both livestock and wildlife and developed collaboratively with the permittee.

## 3.6 LAND EXCHANGES

### 3.6.1 History, Custom, and Culture

There are some intermingled ownership lands within Converse County, areas where land ownership is dispersed between two or more owners (often public land and private land). Much of the land in the TBNG are intermingled since many of the lands were purchased from fee ownership under the Land Utilization Program in the 1930s. Additional lands are intermingled as unclaimed land that reverted to the BLM.





### 3.6.2 Resource Assessment and Legal Framework

Land exchanges can be used to alter the intermingled lands of federal and private land, allowing lands to be consolidated by ownership type and reducing the amount of federal land that is isolated from other public ground. This allows for a more uniform management plan of USFS and BLM land and can create public access opportunities that were previously impossible due the landlocked nature of such parcels and the lack of easements on neighboring private lands. Land exchanges can also be used to allow community development or other purposes that provide great value to the public interest. Exchanges usually take two to four years, but the process can be extended considerably if complications arise with NEPA, land valuation, or ESA. Private land comprises the County's tax base that supports most County services and private land is essential to local industry and residents. An important check on the exercise of governmental authority is the protection of private property rights as provided in the United States Constitution and the Wyoming State Constitution.

The Wyoming Eminent Domain Act, Wyo. Stat. § 1-26-501, authorizes the condemnation of land only for public use and only as set forth in state law. Nevertheless, it is possible that eminent domain power may be used to acquire land needed by private corporations for projects deemed to serve the public good, such as electrical transmission lines. Condemnation authority can also arise from federal law when Congress has given certain federal agencies the authority to condemn, for example, natural gas pipelines have condemnation authority through the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act of 1938. See 15 U.S.C. § 717. Condemnation should only be used as a last option after every attempt has been made to deal in good faith and a desirable outcome cannot be reached.

Exchanging private land for public is one way that agencies can improve their management of public lands and allow public access to said lands. FLPMA granted the USFS and BLM power to conduct land exchanges with private property owners and established five requirements for the process:

- Acquisitions must be consistent with the mission and land use plans of the agency.
- Public interests must be served by the land exchange.
- An agency may accept title to non-federal land if the land is located in the same state as the federal land for which it is being exchanged and the agency deems it proper to transfer the land out of federal care.
- The lands to be exchanged must be equal in value or equalized through the addition of a cash payment, but a cash payment may not exceed 25% of the total value of the federal land.
- Land may not be exchanged with anyone who is not a U.S. citizen or a corporation who is not subject to U.S. laws (BLM Handbook, 1-1, 1-2)

The process for land exchanges begins with a proposal (by an agency or private landowner) of an exchange by an agency to a private landowner. The proposal then goes through multiple analysis and review phases to assure its compliance with the laws and regulations controlling such an





exchange. After the review process is complete, an agreement to initiate is signed by both parties which outlines the scope of the exchange and who will be responsible for what costs in the procedure (USFS, 2004).

The parties are expected to share equally in the costs of a land exchange, but specific requirements may vary between agencies. The USFS requires private landowners to pay for title insurance, advertising, and land surveys at a minimum. The Forest Service usually pays for appraisals. However, the BLM may share in some of these specific expenses if the total costs are apportioned in an equitable manner (USFS, 2004).

Next, an appraisal must be done on each parcel to determine their respective values and assure that the properties are capable of being exchanged. At this point, the agency and private landowner sign a formal exchange agreement binding them to the exchange. The plan is then subject to final review before being completed. During the exchange process NEPA review must also be completed. The exchange must follow NEPA procedures to determine environmental impacts of the exchange, including scoping, environmental assessment, notice and comment, and appeals (USFS, 2004).

The USFS can also perform land exchanges under Title III of the Bankhead-Jones Farm Tenant Act (BJFTA) for parcels situated in National Grasslands. These lands are commonly called “Title III Lands.” Title III requires the USFS to determine that an exchange will not conflict with the purposes of the BJFTA and that the values of the properties are “substantially equal.” If the USFS can show through a determination of consistency that the exchange does not conflict with the purpose of the BJFTA, it “may be completed without a ‘public purpose’ reversionary clause.” (USFS, 2004).

### *Payments in Lieu of Taxes*

Land exchanges or acquisitions that eliminate or decrease private lands can be harmful to the County because the federal government does not pay property taxes, but still may create a demand for services, such as fire protection and police cooperation. One way to offset some of these losses are Payments in Lieu of Taxes (PILT) administered by the United States Department of Interior (31 U.S.C. §§ 6901-6907). The annual PILT payments to local governments are computed in a complex formula based on five variables 1) the number of acres of eligible land in the county; 2) the population of the county; 3) the previous year’s payments for all eligible lands under other payment programs from federal agencies; 4) any state laws requiring payments to be passed through to other local government entities (such as school districts); 5) any increase in the Consumer Price Index for the 12 months ending the preceding June 30<sup>th</sup>. Generally, federal lands eligible under PILT include acreage within the National Forest and National Park Systems, those managed by the Bureau of Land Management, and those affected by U.S. Army Corps of Engineers and Bureau of Reclamation water resources development projects. 31 U.S.C. § 6901. Individual county payments may increase or decrease from the prior year due to changes in computation variables and the amount allocated by Congress in its discretionary spending. 31 U.S.C. § 6902. Converse County received \$960,269 in PILT payments in 2020 (U.S. Department of the Interior, 2020). The Congressional Research Service offers an in depth look at PILT and some



of the issues surrounding the program, including, the uncertainty counties face regarding PILT funding because the funding is discretionary for Congress (Hoover, 2017).

### **3.6.3 Land Exchange Resource Management Objectives:**

- A. Land exchanges that are mutually beneficial to private landowners, the federal agencies, and the public within Converse County are completed in a timely and cost-efficient manner.
- B. Any land tenure adjustments by a federal or state government agency within Converse County are conditioned on no net loss of private land or private property rights and fully compensate the landowner for the value of the property interest, including investment-backed expectations, and compensate Converse County for the lost property tax revenue.
- C. Private property rights are protected in Converse County.

### **3.6.4 Land Exchange Priority Statements:**

1. Converse County requests consultation and coordination when land ownership adjustments to federal and state land are proposed within the County.
2. Federal agencies should proactively identify potential land exchanges within Converse County and conduct analysis on lands for disposal that will consolidate land ownership type and reduce isolated federal or private land parcels.
3. Federal agencies should prioritize land exchanges in areas where there may be resource or management conflicts between federal managers and neighboring private or state landowners.
4. Private land, including isolated tracts, should only be acquired by state and federal government entities when the owner voluntarily consents and there is clearly just and adequate compensation to the landowner and separate compensation to Converse County for the lost tax base.
5. Federal agencies should attempt to achieve a no net loss of private lands within the County whenever considering a land exchange or purchase.
6. Federal agencies should support voluntary land exchanges between the federal government and private landowners within Converse County to adjust property lines and improve access and land management.
7. Federal government entities should investigate and attempt to increase local economic development within Converse County and ensure that citizens of the County suffer no adverse aggregate economic impacts from land ownership adjustments.
8. Converse County requests that when federal and state land agencies propose changes in land use, impact studies on the proposal be conducted at the expense of the agency proposing the change, and that mitigation measures are adopted in coordination with the County.
9. The Bureau of Land Management should accurately identify land eligible for disposal under the Federal Lands Policy and Management Act or for lease or conveyance under



the Recreation and Public Purposes Act and acts promptly to facilitate transfers when requested.

10. Government lands should be made available for traditional eminent domain uses, such as pipelines and transmission lines, where logical, recognizing that government land has no greater value than private land.
11. Federal agencies should not use monies from the Land and Water Conservation Fund to acquire more federal lands in Converse County without first receiving approval from the County.



## CHAPTER 4: GEOLOGY, SOILS, MINING, ENERGY DEVELOPMENT, AIR, AND CLIMATE

### 4.1 GEOLOGY OVERVIEW

Converse County has a rich geologic history. There are many locations of geologic interest throughout the County. These landscapes display the history of the area and contain cultural and recreational value. Refer to Figure 4 for a map of the surficial geology within Converse County.

Converse County is located within the Powder River Basin. The Powder River basin is a northwest-southeast trending structural basin and was formed in the Laramide Orogeny 50-70 million years ago (MYA). The basin was formed by folding and faulting during the early Tertiary period, followed by the Oligocene White River deposition. Bedrock formations exposed within the basin include the Oligocene White River formation; the Eocene Wasatch formation; and the Paleocene Fort Union formation. The sediments throughout the center of the basin originate from the Bighorn Mountains, the Laramie Mountains, and the Hartville Uplift. (BLM: Casper Field Office, 2004)

The Powder River Basin contains several oil fields as well as natural gas. Uranium deposits are also present in the Powder River Basin in Converse County. The significant uranium deposits are generally found in the Tertiary strata in this area. Converse County is also a major producer of sand, gravel and crushed stone (aggregate). (BLM: Casper Field Office, 2004)



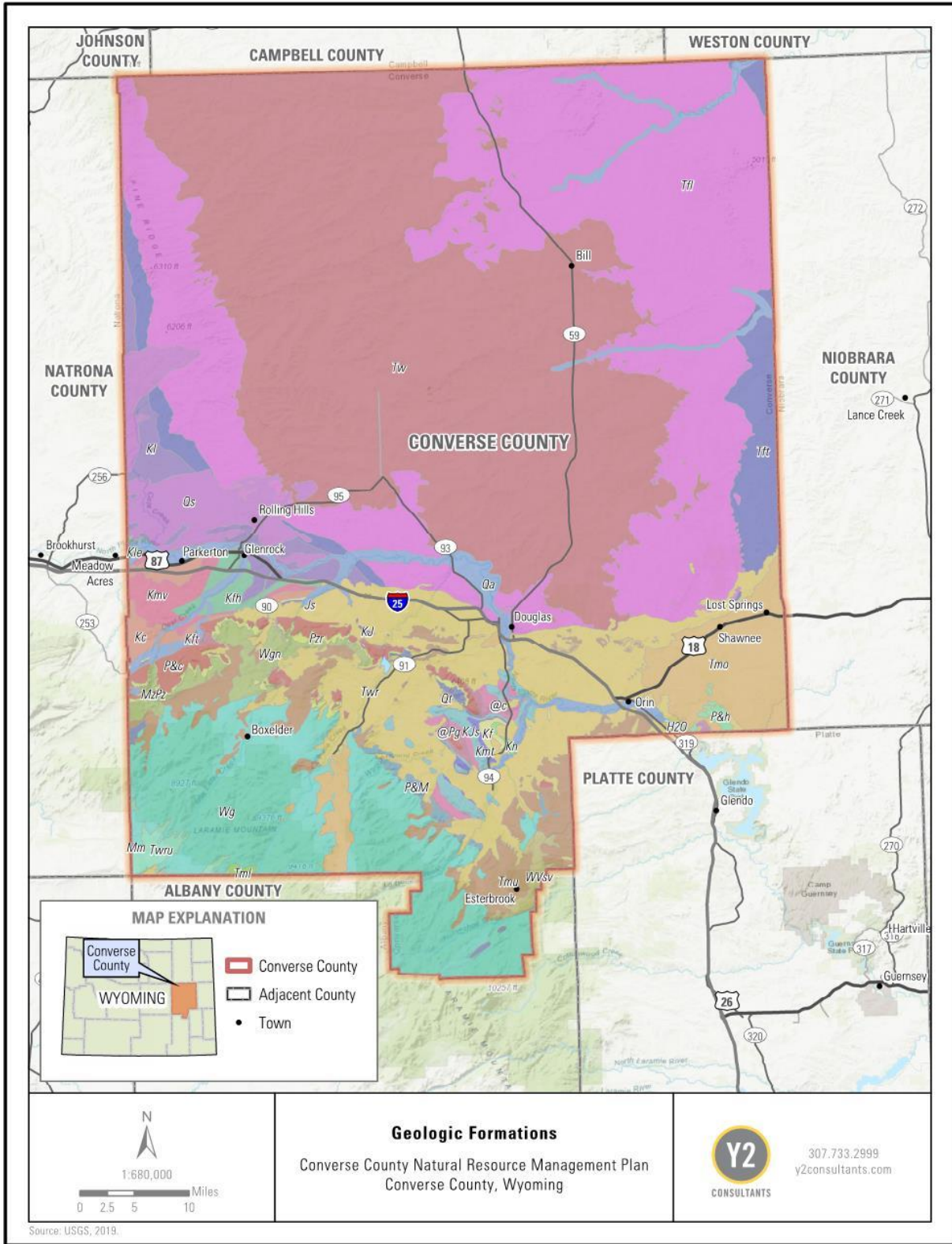


Figure 4. Converse County geologic formations.



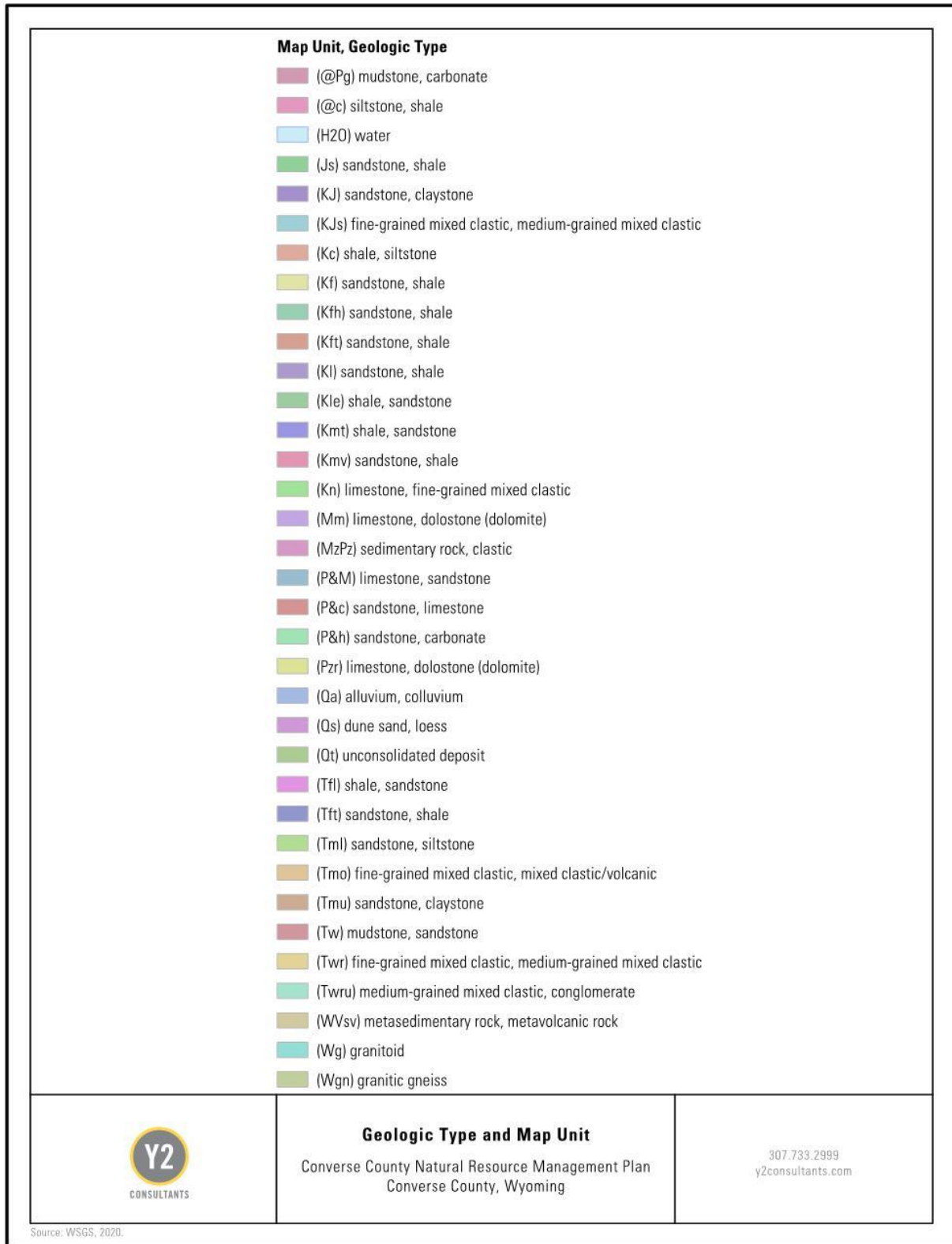


Figure 5. Converse County geologic formation legend.





## 4.2 SOILS

### 4.2.1 History, Custom, and Culture

Healthy soils sustain plant communities, keep sediment out of streams, and dust out of the air. Land managers of federal lands are mandated to manage soils and vegetation to ensure land-health standards are maintained and to safeguard sustainable plant and animal populations (NRCS, 2018). Soil type dictates the vegetation within an area, which determines the area’s uses, productivity, resistance to disturbance, and scenic quality.

Anthropogenic land disturbance as well as wildfire can influence soil quality. Soil issues arising from both anthropogenic and natural causes include erosion, drainage, invasive species, soil compaction, salination, and loss of vegetation. (NRCS, 2018)

The Conservation District within Converse County works to promote the conservation of soil and water resources within the districts (See Section 2.1 Land Use for more information).

### 4.2.2 Resource Assessment and Legal Framework

#### *Soil Surveys*

Soil surveys provide detailed information on soil limitations and properties necessary for project planning and implementation. Soil surveys document soil properties and distribution to monitor and understand the impacts of various uses. There are five levels or “Orders” of soil surveys depending on the level of detail involved. Order three is typical for most federal lands projects which do require onsite investigations by expert soil scientists for site specific project related activities or projects (USDA: Soil Science Division Staff, 2017).

Soil survey reports, which include the soil survey maps and the names and descriptions of the soils in a report area, are published by the USDA NRCS and are available online through Web Soil Survey (NRCS, n.d.-b). The soil survey mapping of Converse County is current and published to Web Soil Survey (NRCS, n.d.-a). The general soil map units for Converse County are depicted in Figure 6.

#### *Ecological Sites*

Ecological Sites provide a consistent framework for classifying and describing rangeland and forestland soils and vegetation. Ecological Site Descriptions (ESDs) are reports that provide detailed information about a particular type of land. ESDs are described using the soil mapping for a landscape and each ‘site’ has multiple characteristics that are tied to the soil traits present. ESDs are used for assessing vegetation states and are often used when designing reclamation and rehabilitation of an area. ESDs help determine how a site will react to disturbances and potential vegetation that could be used in reclamation of the site. ESDs are still in draft form for areas within Converse County.





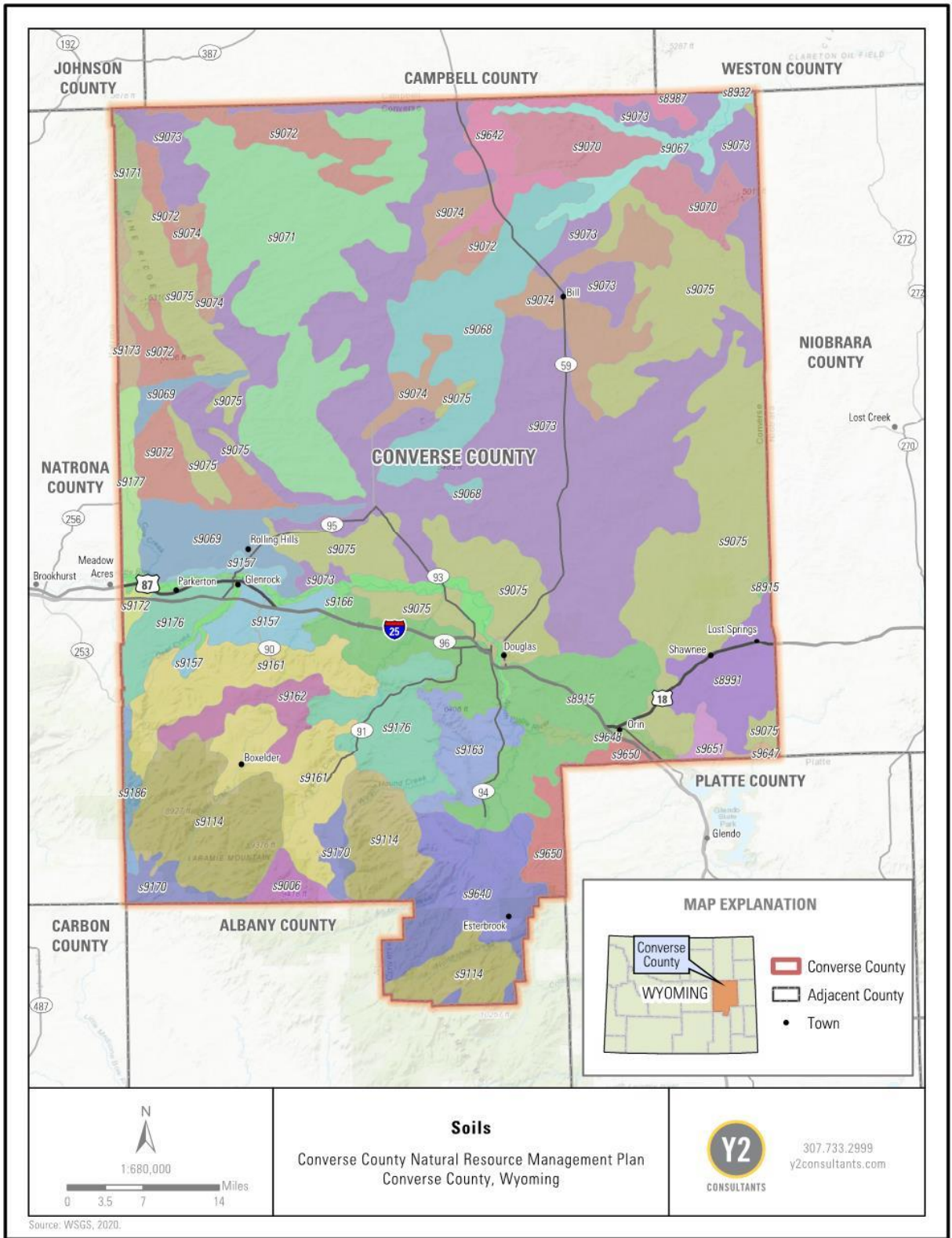


Figure 6. Soils mapped for Converse County (refer to legend below).



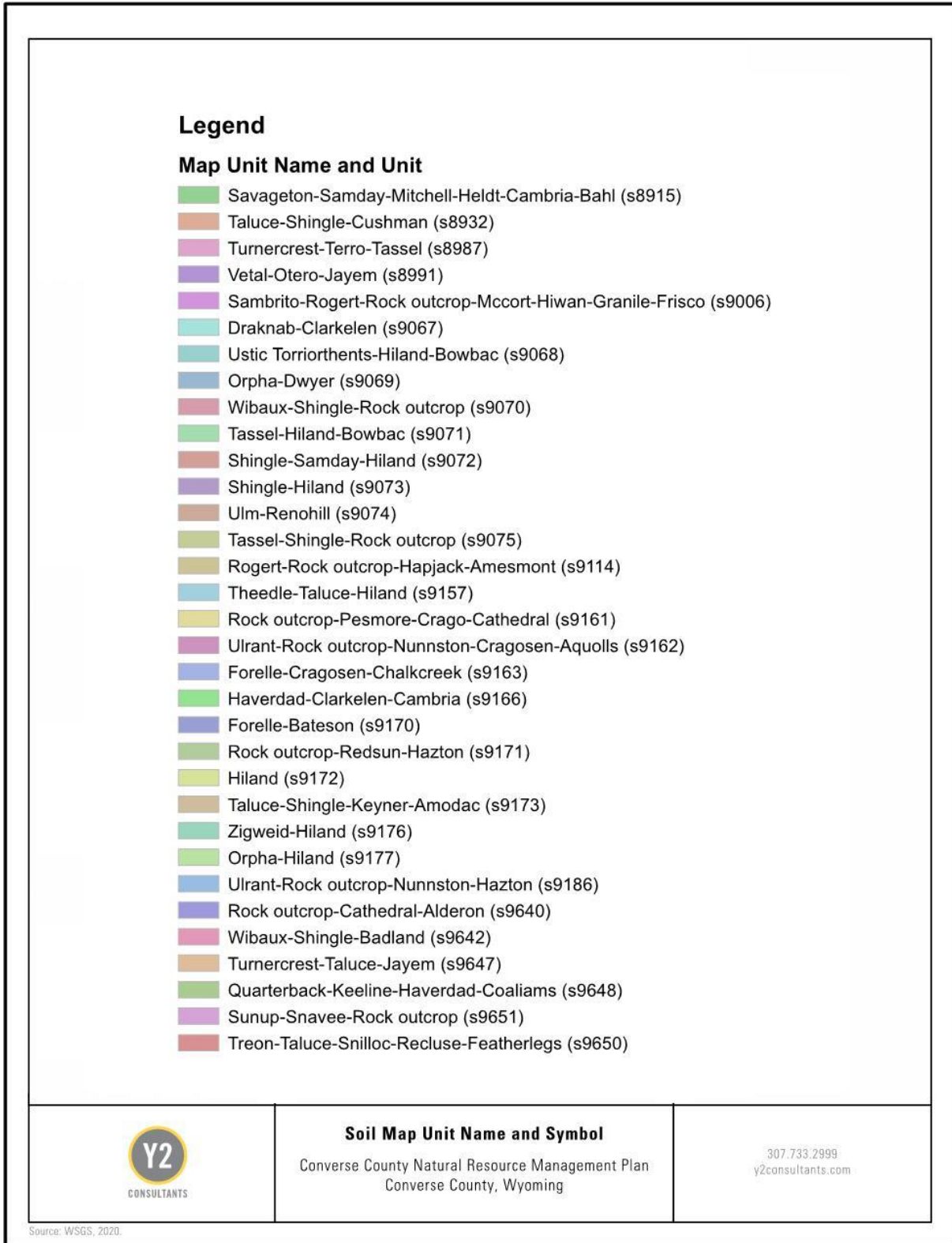


Figure 7. Soils map legend for Converse County.



### 4.2.3 Soil Resource Management Objectives:

- A. Soil quality and health is maintained and conserved through best management practices throughout Converse County.
- B. Federal agencies consult and coordinate with surface users regarding soil health and reclamation.

### 4.2.4 Soil Priority Statements:

1. Federal agencies should support projects and policies which improve soil quality and ecology throughout Converse County.
2. Federal agencies should support erosion control as a means of flood control.
3. For new soil disturbing projects or permits, federal agencies should support implementation of best management practices to manage runoff, preservation and maintenance of topsoil, watershed management, stabilize soils on site and reclamation.
4. Converse County does not support land use designations or management objectives that eliminate or reduce the opportunity for implementation of practices that can improve soil health.
5. Converse County supports and encourages the use of natural processes, including livestock grazing, in site reclamation for soil health and biodiversity.
6. Federal agencies should consult with existing surface users and the appropriate county agencies when developing reseeding and reclamation requirements for permittees conducting soil disturbing or degradation activities.
7. Weed management plans should be developed in consultation with the Converse County Weed and Pest District for soil surface disturbance on public lands.
8. Federal agencies should use Ecological Site Descriptions developed by the USDA Natural Resource Conservation Service as the foundation for the inventory, evaluation, monitoring and management of rangelands and forestlands.

## 4.3 MINING AND MINERAL RESOURCES

### 4.3.1 History, Custom, and Culture

Mineral production has been part of Converse County's culture for over 100 years. Mining is one of the historical uses of federally managed lands, predating the establishment of the USFS and BLM. Maintaining such uses is statutorily compatible with multiple use principles. Mineral production is a large segment of industry in Converse County and provides jobs to hundreds of people throughout the region. This industry serves a crucial role in the development of the County.

Production of minerals, and associated economic and cultural activity, have historically waxed and waned with demand and pricing, but mining remains a significant portion of Converse County's domestic production. There are 31,288 records of mining claims managed through the BLM and 264 records of mines listed by the USGS in Converse County. Of the listed claims, 15.32% are active. (The Diggings, 2020b)



The mining commodities present in the County include uranium, coal, copper, iron, gold, zinc, tungsten, silver, molybdenum, lead, nickel, selenium, vanadium, manganese, and sulfur. (The Diggings, 2020a)

### 4.3.2 Resource Assessment and Legal Framework

Converse County supports the production of all minerals in an environmentally responsible manner by providing infrastructure and services such as roads, bridges, medical services, and law enforcement. The existing government regulatory process has limited mineral development due to necessary collaboration between local and state authorities. Entities such as the Wyoming Oil and Gas Conservation Commission (WOGCC), BLM, USFS, and Wyoming Department of Environmental Quality (WYDEQ) are critical to the development of hydrocarbon reserves but can potentially hinder the development of these resources. Improved relations with these agencies are a crucial element for increasing access to new reserves. To secure economic longevity and prosperity of the County, these challenges and interface issues need to be reduced.

The Congressional Act of July 26, 1866 and the General Mining Act of 1872 granted all American citizens the right to go into the public domain to prospect for and develop minerals. Every mining law or act enacted since then has contained a “savings clause” that guarantees that the originally granted rights will not be rescinded. These laws are applicable in Converse County. Converse County’s policies for mineral development are structured to increase the exploration, development, and production of mineral and energy resources within the political jurisdiction of the County. Primary objectives of the County are to establish partnerships with mineral industries and federal agencies, to increase and share knowledge of the mineral estate, and to develop and foster trust among partners. Through these relationships, the County plans to encourage development of mineral and energy production countywide.

#### *Split Estate*

A unique form of federal land ownership in the west comes from split mineral estates. Converse County has a large amount of split mineral estate. A split mineral estate occurs when the ownership of the minerals (or subsurface rights) in a given area is different from the ownership of the surface estate. Generally, and as set forth in Wyoming law, mineral rights often take precedence over other rights and the owner of the mineral estate has an overriding right to use the land to explore for and develop minerals (43 U.S.C. §§ 291 and 299; *see also Watt v. Western Nuclear Inc.*, 462 US 36, 53-55 (1983)).

A split estate is formed when an original sovereign makes a land grant, but reserves the mineral estate. This occurred in the U.S. under several land grant or homesteading acts, when the federal government sold or gave away vast quantities of land to encourage western migration. The Stock Raising Homestead Act of 1916 allowed for over 70 million acres in the west, reserving the minerals for the federal government. A split estate may also be created when a landowner sells their mineral rights, or sells the surface estate while retaining the minerals. There are many forms of split estate where the surface/mineral split may be private/federal, private/state,





private/private (different owners), state/federal, state/private, federal/state, or federal/federal (where different federal agencies control).

Wyoming has its own state statute regarding split estate. Wyoming Statute §§ 30-5-401 to –410 that holds key provisions to conduct oil and gas operations within the State. Those key provisions are:

- Codifies reasonable use and accommodation
- Predevelopment notice of entry
- Good faith negotiations for surface use agreement
- Damage bond required if no surface use agreement reached
- Two-year statute of limitations for damages to surface (from discovery)
- Compensable damages include loss of production, income, land value, and improvements for land directly affected
- Does not foreclose common law tort actions or contract rights
- Regulatory violation is *per se* negligence under the Act

In the Casper Resource Management Plan Environmental Impact Statement dated July 2006, the BLM notes that “...while the BLM does not have the legal authority in split-estate situations to regulate how a surface owner manages his or her property, the agency does have the statutory authority to take reasonable measures to avoid or minimize adverse environmental impacts that may result from federally authorized mineral lease activity.” (Appendix A, page A-2).

For federal split mineral estates, the BLM manages all minerals owned by the federal government. Whenever an operator acquires a BLM lease to produce minerals from a split estate, they must negotiate a surface use agreement in good faith with the surface estate owner (BLM, 2007). The surface use agreement is confidential but must provide enough information in a Surface Use Plan to allow for the BLM to conduct NEPA review of the project. If the operator is unable to negotiate a surface use agreement with the landowner, they may elect to file a bond with the BLM to cover compensation for damages to the surface estate. Fossils are a part of the surface estate, thus are owned by the surface owner (*See Earl Douglass*, 44 Pub. Lands Dec. 325 (D.O.I. 1915)).

### **Withdrawal**

Federal lands can be withdrawn from mineral eligibility of development under the mining laws (30 U.S.C. Ch. 2). Mineral withdrawal prohibits the location of new mining claims. Withdrawal also may require that any preexisting mining claims in the area demonstrate that valuable minerals have been found prior to withdrawal before any activities can commence on those preexisting claims. Withdrawal of minerals cannot prohibit the use of a valid existing right. A valid existing right exists when the mining claim contains the discovery of a valuable mineral deposit that satisfies the “Prudent Person” test, as defined in *Castle v. Womble* (U.S. v. Cole, 390 U.S. 599, 602 (1968)). To pass the “Prudent Person” test a person must demonstrate that “the



discovered deposits must be of such a character that ‘a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine.’ However, these minerals cannot be considered “of common variety” to be a considered a valuable mineral under the mining laws (See *id.*; 30 U.S.C. § 611).

Congress can withdraw lands from new mineral claims or leases by passing legislation withdrawing said lands (See North Fork Watershed Protection Act of 2013). Additionally, FLPMA gives the Secretary of Interior the authority to withdraw federal lands (43 U.S.C. § 1714). Secretarial withdrawals of over 5,000 acres may only last 20 years at most, but withdrawals may be renewed (43 U.S.C. § 1714(c)). The Secretary of Interior must inform Congress of any secretarial withdrawal of over 5,000 acres. The withdrawal will expire after 90 days if both bodies of Congress draft concurrent resolutions that they do not approve the withdrawal within 90 days of being notified by the Secretary of Interior. In order to allow for public involvement in the withdrawal process, public hearings and opportunities for public comment are required of all new secretarial withdrawals (43 U.S.C. § 1714(h)).

### ***Dormant Commerce Clause***

One issue arising recently is that of cities across the west coast enacting ordinances banning the export of coal from their ports. In 2016, the City of Oakland enacted such a ban, similar bans have been enacted in the city of Richmond and the state of Washington. Such bans bring up constitutional questions regarding the Dormant Commerce Clause (See *Levin v. City of Richmond*, 107 Fed.R.Serv.3d 1608 (August 27, 2020)). The Dormant Commerce Clause of the Constitution prohibits states or local governments from unjustifiably discriminating against or burdening the flow of interstate commerce (U.S. CONST. art. I, § 8, cl. 3). The general purpose of the Dormant Commerce Clause is to avoid states from engaging in “economic Balkanization” or economic protectionism in which one state’s industry or business is discriminated against in order to benefit the industry of another state (*Hughes v. Oklahoma*, 441 U.S. 322, 325 (1979)).

There are four ways in which a local or state regulation may be a violation of the Dormant Commerce Clause. The first instance is when state or local law that “discriminates” against interstate commerce faces a “virtually per se rule of invalidity” (*Philadelphia v. New Jersey*, 437 U.S. 617, 624 (1978)). Thus, when a law explicitly discriminates or is applied unevenly to an out-of-state business in favor of an in-state business, the law is automatically unconstitutional. The second way a local law or ordinance may violate the Dormant Commerce Clause is when there is a non-discriminatory law that incidentally affects interstate commerce, but the burden on interstate commerce is clearly exceeding the local benefits (*Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970)). In other words, when a law is evenly applied to everyone, but the law creates an immense burden on interstate trade with little benefit to the local community, it is unconstitutional. The third way a law can violate the Dormant Commerce Clause is if it has an impermissible extraterritorial reach (*Healy v. Beer Inst.*, 491 U.S. 324, 336 (1989)). Simply put, if the practical effect of a statute controls the conduct of citizens within the borders of another state, the law is unconstitutional (See *id.* (ruling a law requiring beer and liquor sold in Connecticut to be the same price or less than beer and liquor sold in bordering states is unconstitutional because the law has the practical effect of regulating markets outside of the



state of Connecticut)). Finally, a state or local law violates the Dormant Commerce Clause if it interferes with the federal government’s ability to speak with one voice when regulating commerce with foreign nations (*Japan Line, Ltd. v. Los Angeles Cty.*, 441 U.S. 434, 449 (1979)). In turn, if a regulation has the practical effect of preventing Wyoming coal from being exported to other countries and jurisdictions, the Dormant Commerce Clause may very well make such laws illegal because it impermissibly regulates interstate commerce (*See State of Wyoming, Kansas, Montana, Nebraska, South Dakota and Utah’s Motion for Leave to Participate as Amicus Curiae, Lighthouse Resources, Inc. v. Inlsee*, No. 3:18-cv-05005 (W.D. Wash., Motion and Brief Filed May 8, 2018)).

### **Locatable Minerals**

Locatable minerals are a legal term that, on federal lands, defines a mineral or mineral commodity that is acquired or staked through the General Mining Law of 1872, as amended. Examples of locatable minerals include, but are not limited to, gold, silver, platinum, copper, lead, zinc, magnesium, nickel, tungsten, bentonite, barite, feldspar, uranium, and uncommon varieties of sand, gravel, and dimension stone. Converse County has an extensive history of mining locatable minerals, such as uranium and copper. The BLM manages the mining law program on the federal mineral estate including authorizing and permitting mineral exploration, mining, and reclamation actions.

### **Uranium**

BLM is responsible for administering the laws and regulations regarding the availability of all locatable minerals on federal lands, including uranium, as specified under the General Mining Law of 1872, as amended, 43 CFR Parts 3700 and 3800, and the FLPMA. Under these laws and regulations, the BLM is obligated to allow claim holders to develop their claims subject to reasonable restrictions including the restriction that unnecessary or undue degradation may not occur [43 CFR § 3809.411(d)(3)].

BLM authority for land management is derived from the FLPMA. General BLM regulations are described in 43 CFR Subtitle B - Regulations Relating to Public Lands, Chapter II - BLM, USDO. The BLM regulations for the management of mining are included in 43 CFR Subpart 3809, Surface Management, and derive their mandate from Sections 302 and 303 of the FLPMA. Subpart 3809 established procedures and standards for mining claimants to prevent public land degradation and requires reclamation of disturbed areas. It also requires coordination with applicable federal and state agencies. For operations on public lands other than casual use, 43 CFR 3809 requires BLM approval of a Plan of Operations, a full environmental review, and reclamation bonding.

Uranium mines in Wyoming are permitted through the WDEQ Land Quality Division and licensed through the WDEQ Uranium Recovery Program.

### **Coal**

Coal was discovered in Wyoming in 1843 by the Fremont Expedition. Historically, coal has been one of the largest and most stable sources for Converse County revenues, as production in





Converse County has been generally steady for the past twenty years. Two major mines account for the coal production in Converse County; the Antelope Mine, which is located primarily in Converse County, and the North Antelope/Rochelle Mine which has only a small portion within Converse County. The Powder River Basin, which includes the northern part of Converse County, is home to 13 mines, making it the most productive coal mining region in the United States. In recent years, coal production has decreased significantly in these areas. Much of this is due largely to customer utilities converting to natural gas and due to increasing availabilities of solar and wind generated power.



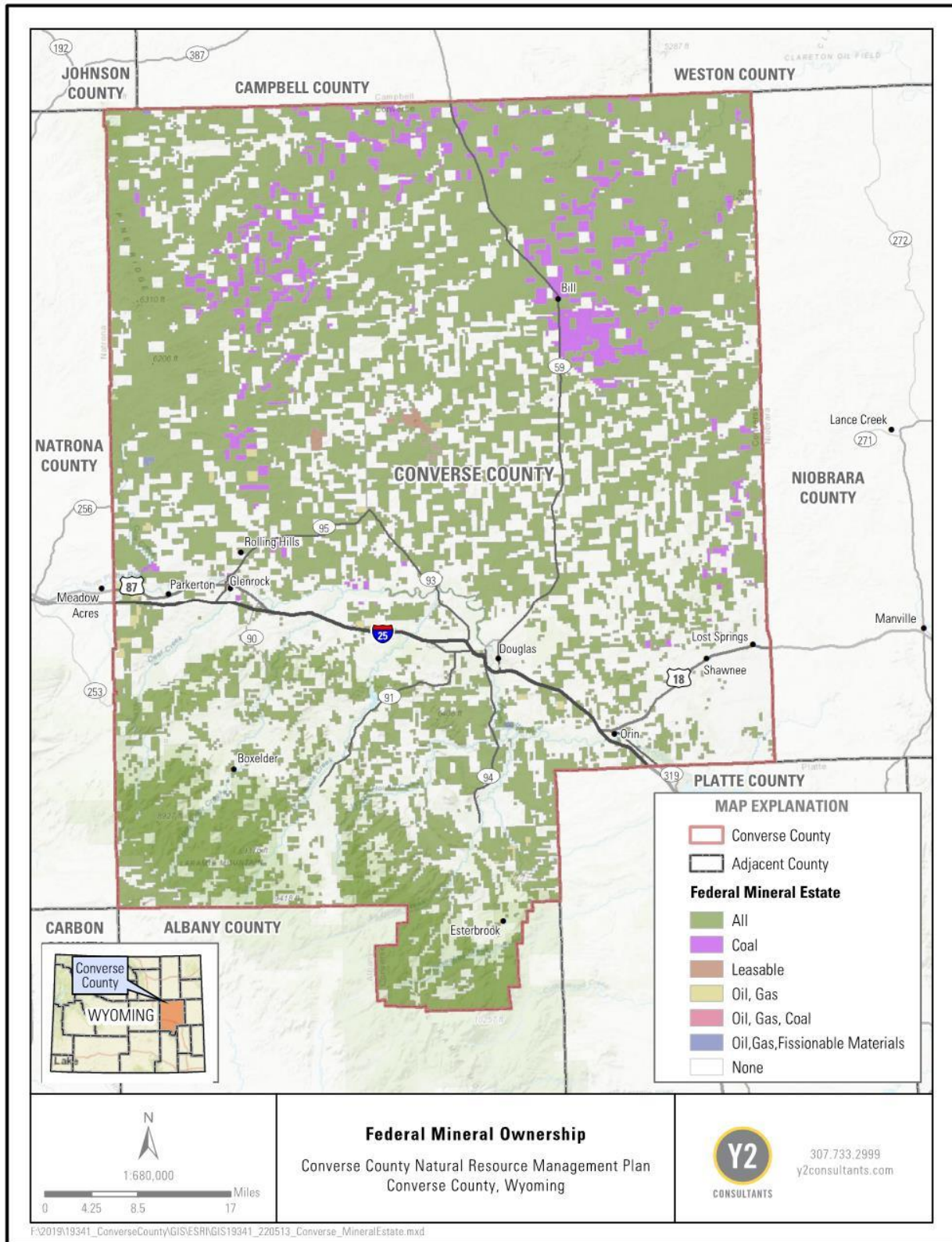


Figure 8. Federal mineral ownership in Converse County.



### **Salable Minerals**

Salable minerals, also known as mineral materials, include common variety materials such as sand, frack sand, gravel, stone (e.g., decorative stone, limestone, and gypsum), clay (e.g., shale and bentonite), limestone aggregate, borrow material, clinker (scoria), and leonardite (weathered coal). Sand and gravel provide raw materials for most construction and paving activities. Many of these materials are used frequently in construction and road improvement projects.

#### **4.3.3 Mining and Mineral Resource Management Objectives:**

- A. The extraction of coal, bentonite, uranium, and all other minerals within Converse County is continued in a sustainable and ecologically healthy way.
- B. All mining operations in Converse County reclaim the land as close to its original condition as feasible.

#### **4.3.4 Mining and Mineral Priority Statements:**

1. Converse County supports the open filing of mining claims and exploration for and development of locatable minerals, except for land withdrawn from mineral location.
2. Converse County requests to be notified and allowed to join as a cooperating agency, as early in the process as is allowed by federal law, for any proposed project affecting mining and mineral resources.
3. Converse County requires that public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands, including implementation of the Mining and Minerals Policy Act of 1970.
4. Federal agency land use and management plans shall contain a thorough discussion and evaluation of energy and mineral development, including the implications such development may have on surface land uses and the Converse County economy.
5. Converse County supports releasing bonds for oil and gas development once bonding requirements and procedures have been met.
6. Converse County encourages simultaneous or sequential mineral development with other resource uses in accordance with multiple use management principles, weighing and balancing established mineral rights with other multiple uses in the development and coordination process.
7. Converse County encourages proper mitigation of closed mines and reclamation practices throughout the County using existing ecological site descriptions to help determine mitigation and reclamation methods.
8. Weed management plans should be developed in consultation with the Converse County Weed and Pest District for mining and reclamation on public lands, which must be beneficial to both livestock and wildlife.
9. Converse County shall be informed of proposed timelines for federal agency proposals and decisions involving minerals.
10. Converse County fully supports the final rule as published on July 16, 2020 regarding an update to the Council on Environmental Quality NEPA Implementing Regulations.



11. Converse County supports Wyoming’s primacy over air and water quality standards with the Wyoming Department of Environmental Quality as the primary authority concerning setting and enforcing standards within the State and County.
12. Federal agencies should ensure that existing air, water, and land quality be maintained and not substantively diminished because of new mineral development activities.
13. All federal permits should require road use agreements where needed with Converse County. Those agreements should include upgrading of roads to handle anticipated increases in traffic where applicable.
14. All federal agency plans or management recommendations must include a social and economic impact assessment that addresses the effects and benefits of energy and mining development to Converse County.
15. Any and all lands or minerals subject to a federal withdrawal, either formal or informal, must go through the proper process as required by the Federal Land and Policy Management Act (FLPMA) and Converse County must be notified and given the opportunity to participate in the NEPA process as a cooperating agency in any decision-making process affecting such changes to the designation.
16. Federal agencies should abstain from permitting non-compatible increases in the intensity of the surface use in residential and commercial areas underlain by extractable minerals.
17. Temporary workers’ quarters shall meet minimum state and county health department requirements.
18. Trash and waste disposal from energy mineral extraction and processing shall be handled to meet solid hazardous waste disposal requirements of federal, state, and county governments.

## 4.4 ENERGY RESOURCES

### 4.4.1 Oil and Gas

#### 4.4.1.1 History, Custom, and Culture

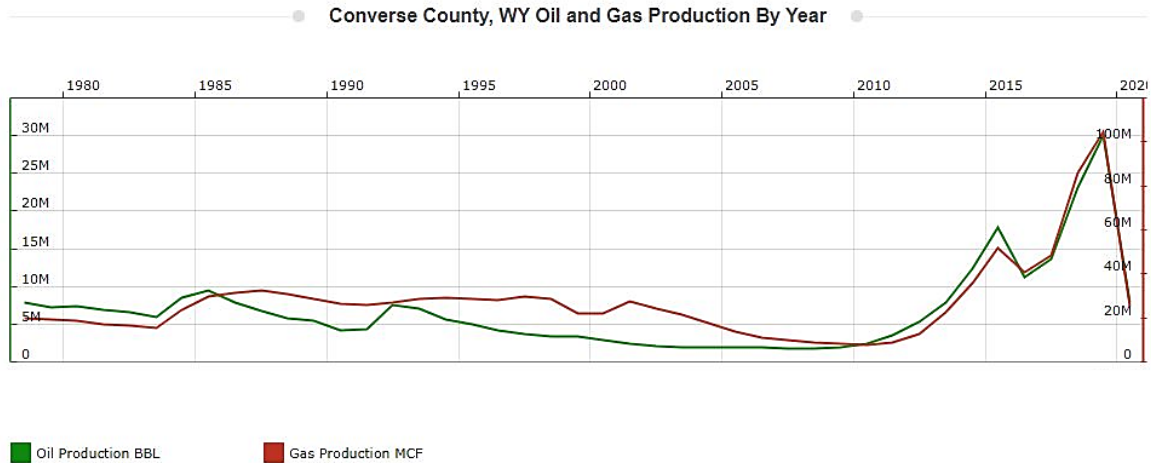
Oil and gas production have contributed to Converse County’s taxable income for over 100 years. In 2002 oil and gas production contributed to 40% of the property taxes in the County (BLM: Casper Field Office, 2004). In the past decade there have been developments in secondary and tertiary production methods that have made previously depleted fields economically feasible to re-produce and re-complete. From these advances there has been an increase in statewide oil production in the past decade. Conversely, natural gas production across the state has declined.

The County has seen relatively stable trends in oil and gas production between 1980 and 2010. Oil and gas production increased after 2010, peaking in 2019 near 30 million BBL (barrels) and 104 million MCF (million cubic feet) respectively. Oil and gas production decreased dramatically in 2020, producing only 7.8 million BBL of oil and 25 million MCF of gas. (Figure 7) (Drilling Edge,



2020) These trends in decline and growth are tied to existing economic conditions at the County, state, and national levels (see Figure 8 and 9).

Figure 9. Oil and gas production in Converse County from 1980 to 2020.



### Wyoming Oil Production for 1978-2020

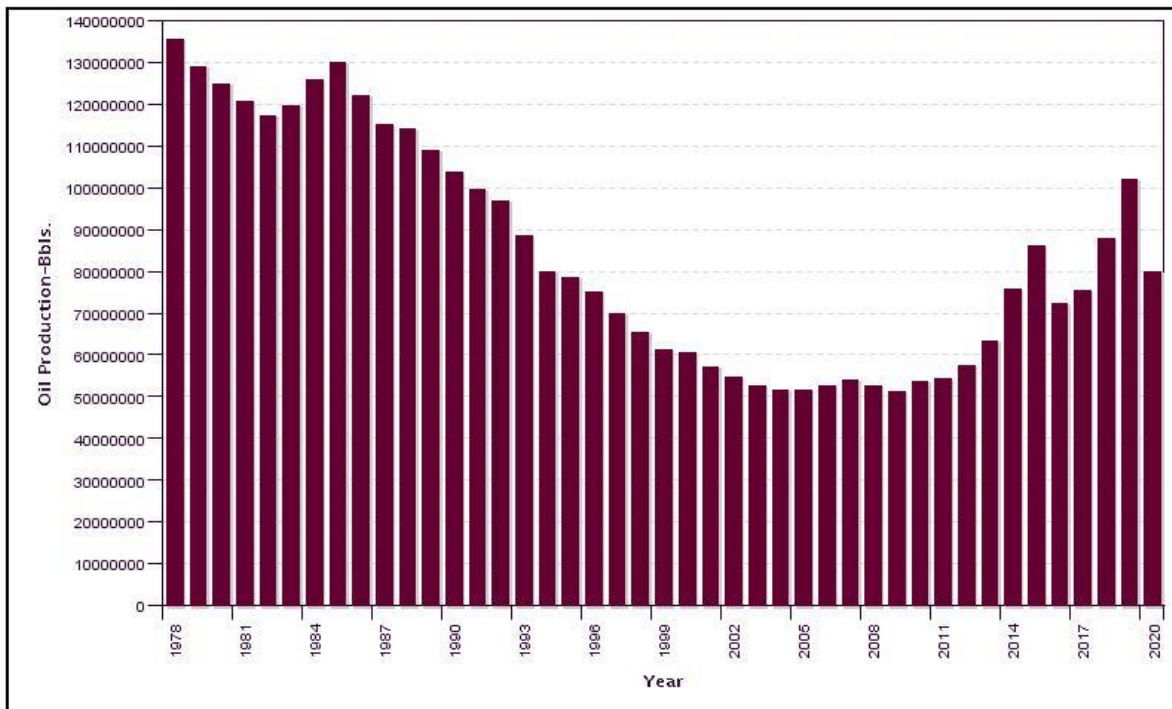


Figure 10: State of Wyoming Oil Production Trends (1978-2020). (WOGCC, n.d.-a)





## Wyoming Gas Production for 1978-2020

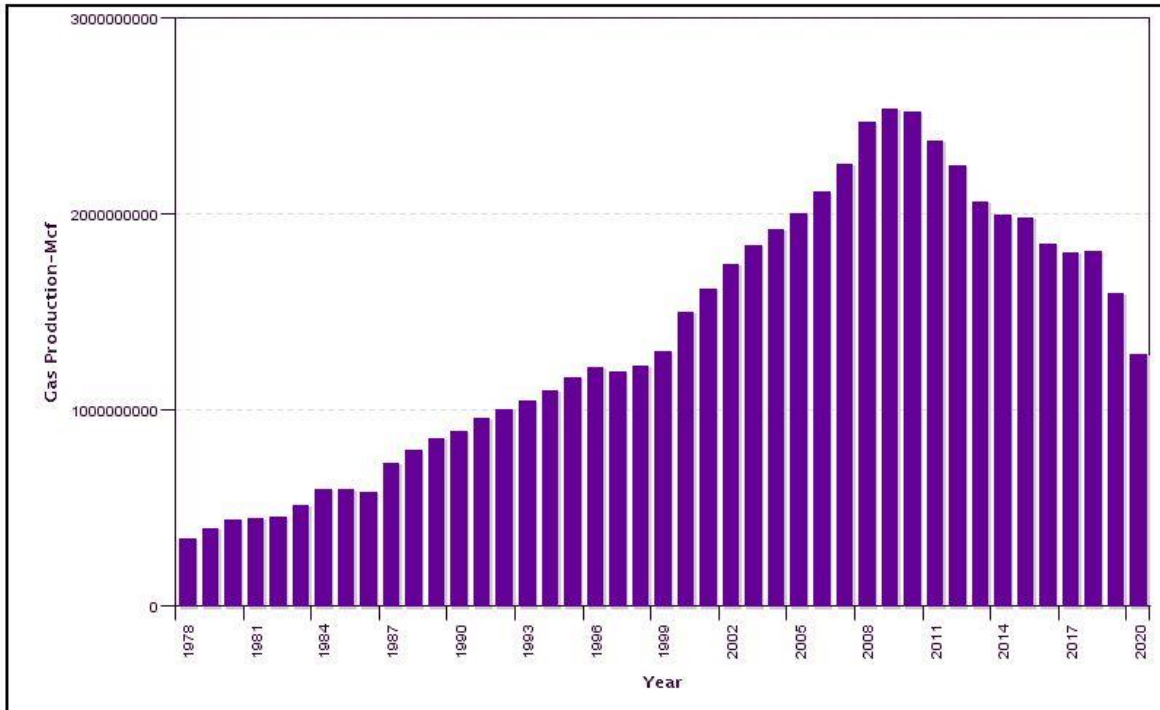


Figure 11: State of Wyoming Gas Production Trends (1978-2020). (WOGCC, n.d.-b)

### 4.4.1.2 Resource Assessment and Legal Framework

The extraction of oil and natural gas from deposits is accomplished in three central phases of recovery: primary, secondary, and enhanced or tertiary recovery. Primary recovery relies on initial underground pressure to drive the product to the surface. As pressure falls, artificial lift technologies are used to bring the product to the surface. Occasionally the need for artificial lift is eliminated in the case of the artesian, or over-pressured, reservoir. Typically, only 10% of a reservoir’s original oil in place is produced through primary recovery. Secondary recovery methods, such as water or gas injection, can extend a field’s productive life and result in the extraction of an additional 20-40% of the original oil in place. Enhanced oil recovery techniques offer the potential to produce 30-60% more oil. These techniques include thermal recovery, hydraulic fracturing, gas injection, chemical flooding or horizontal development.

The production of gas is similar to that of oil in that the primary phase of production is driven by initial reservoir pressure and decreases as this pressure and reserves in place are reduced. The production of gas can be augmented in a manner similar to that of oil. Enhanced or tertiary recovery of gas can be further augmented through the utilization of fracturing and other stimulation methods. Enhanced recovery methods are limited by costs and unpredictable effectiveness. These methods have improved drastically over the past decade allowing for more cost-effective and efficient recovery.

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give the BLM responsibility for oil and gas leasing on BLM, USFS, and other



federal lands, and on private lands where mineral rights have been retained by the federal government (split estates). The BLM is a multiple use agency and must balance the development of mineral resources in the best interest of the country. The BLM must manage for uses like livestock grazing, recreation, and development and conservation of wildlife habitat. The USFS regulates all surface-disturbing activities on USFS land, (30 U.S. Code § 226 (g)). The USFS is the lead agency applying stipulations on leasing of USFS land and conducts environmental analysis for leasing and permitting activities on these lands.

#### *BLM Converse County Oil and Gas Project*

In December 2020, BLM issued a decision, the [Converse County Oil and Gas Project Record of Decision](#), that allows the development of up to 5,000 new oil and natural gas wells within a 1.5-million-acre project area in Converse County over the course of 10 years. The decision modified the 2007 Casper Field Office Resource Management Plan to allow for year-round drilling while continuing to protect non-eagle raptors in the area and conserve their habitat. The project is expected to generate roughly 8,000 jobs and approximately \$18 to \$28 billion in federal revenues. The decision does not authorize any on-the-ground activity -which will require separate site-specific review and approval. (BLM, 2020)

#### ***4.4.1.3 Oil and Gas Resource Management Objective:***

- A. Oil and gas extraction are managed in a responsible way that promotes Converse County's economic viability along with the health of the citizens of the County.

#### ***4.4.1.4 Oil and Gas Priority Statements:***

1. Converse County should be informed of all potential uses of county roads and resources from oil and gas activities and associated impacts to those resources on an annual basis.
2. Converse County encourages and supports the nomination of more federal and state oil and gas leases for sale.
3. Federal agencies should approve oil and gas leases in a timely manner and should notify Converse County when deferring lease applications.
4. Federal agencies are encouraged to prioritize approval of secondary and enhanced (tertiary) recovery methods where possible (e.g., fluid, gas, and steam injection) to extend the production life of a field, while maintaining air quality and available water for agricultural and domestic use.
5. Converse County encourages the use of new technology and advanced production techniques to improve access to reserves in place, including long length horizontal wells and fracking.
6. Converse County requests coordination among federal agencies to facilitate applications for permit to drill in a timely manner, as prescribed in federal law.
7. Federal agencies should support the use of enhanced production techniques and the development of infrastructure to provide material supply and support to ensure further development throughout Converse County.
8. The disposal of oil and gas untreated produced water into surface waters of Converse County is not supported by the County.





9. Alternatives to flaring such as the use of pipelines, storage, etc. should be encouraged.
10. Road use agreements should be made with Converse County for all oil and gas permits within the County.
11. Dust mitigation plans should be made for all roads associated with oil and gas developments within Converse County.
12. So long as such activities will not harm private property rights, federal agencies should allow operators to capture, use, and/or store carbon dioxide during extraction activities on public lands.
13. Federal agencies should facilitate reclamation and mitigation of lost or decreased forage resources that occur because of surface disturbance from surface mining, oil and gas, utilities, and recreation.
14. Federal agencies, industry, and landowners are encouraged to seek technical assistance from the Converse County Conservation District and Weed and Pest Control District to mitigate surface disturbance to facilitate soil and water conservation and re-establishment of native or other desired vegetation, which is beneficial to both livestock and wildlife.
15. Federal and state agencies must provide adequate bonding requirements to ensure successful reclamation of abandoned energy and mineral resource projects.
16. Converse County encourages proper mitigation and reclamation practices throughout the County using existing ecological site descriptions to help determine mitigation and reclamation methods in coordination with Converse County Conservation District and the Converse County Weed and Pest Control District.
17. Converse County encourages minimization of conflict between surface owners and mineral owners/lessees and supports the process for entry upon land for oil and gas development as required by Wyoming Statute § 30-5-402.
18. Converse County encourages negotiation of surface use agreements on split estates and supports siting of oil and gas facilities off private land, unless otherwise agreed by surface owner.
19. Converse County supports [BLM Permanent Instruction Memorandum 2018-014](#) “Directional Drilling into Federal Mineral Estate from Well Pads on Non-Federal Lands” dated June 12, 2018 specific to its interpretation of surface owner’s rights to allow or deny access to private surface in split estate situations.
20. The BLM should continue holding lease sales and awarding leases for Converse County lands on at least a quarterly basis as is required by the Mineral Leasing Act.
21. Federal agencies should fully support the implementation of the Converse County Oil and Gas Project Record of Decision of 2020.
22. Converse County fully supports the implementation of the Prospective Petroleum Industry Development and Response Reporting Program as supported by the [Converse County Oil and Gas Project Record of Decision of 2020](#).
23. Converse County supports Wyoming’s primacy over air and water quality standards with the Wyoming Department of Environmental Quality as the primary authority concerning setting and enforcing standards within the County.



## 4.4.2 Pipelines and Transmission Lines

### 4.4.2.1 History, Custom, and Culture

Due to the development of oil and gas within Converse County there has been significant development of oil and gas transmission pipelines throughout the County. There are extensive pipelines along the North Platte River valley and from the valley to the oil and gas fields, in the northern part of the County. The development of pipelines in the County began in the early 1920s. (WSGS, n.d.) The County has long been a proponent of responsible pipeline development.

### 4.4.2.2 Resource Assessment and Legal Framework

Pipeline infrastructure plays a crucial role in the development and transmission of hydrocarbons at the national, state, and County levels. It is crucial that these avenues for transmission are allowed to thrive and develop within Converse County. Pipelines offer a safe and effective means for delivering large amounts of hydrocarbons across extended distances with minimal risk for spills and reduces the truck traffic and dust (Global Energy Institute, 2013).

There is very little federal regulation of most pipelines. Permitting for interstate natural gas pipelines and interstate liquified natural gas (LNG) pipelines fall under Section 7 of the Natural Gas Act and are reviewed by the Federal Energy Regulatory Commission (FERC), which also gives pipeline companies their national condemnation authority. However, the Natural Gas Act does not regulate oil or natural gas liquid (NGL).

The federal government has explicitly avoided drafting regulations concerning pipeline land-use issues. “Congress has failed to create a federal regulatory scheme for the construction of oil pipelines, and has delegated this authority to the states.” *Sisseton-Wahpeton Oyate v. U.S. Dep’t of State*, 659 F. Supp. 2d 1071, 1081 (D.S.D. 2009)(“Generally, state and local laws are the primary regulatory factors for construction of new hazardous liquid pipelines.”). Even for gas pipelines, the Federal Energy Regulatory Commission “FERC” requires gas pipeline companies to comply with state and local regulations as a condition of their federal certificates. *See NE Hub Partners, L.P. v. CNG Transmission Corp.*, 239 F.3d 333, 339, 346 n. 13 (3d Cir.2001) (concluding that field of natural gas regulation was occupied by federal law, but that FERC required gas company to comply with local regulations through conditions in certificate). Thus, unless pipelines cross federal lands and trigger NEPA review, interstate pipelines remain mostly unregulated by the federal government.

One aspect of pipelines that is federally regulated outside of federal lands is pipeline safety. In 1994, Congress passed the Pipeline Safety Act “PSA,” 49 U.S.C. § 60101–60137, recodifying without substantive changes the Natural Gas Pipeline Safety Act of 1968 and the Hazardous Liquids Pipeline Safety Act of 1979. Among other things, the PSA expressly preempts state law concerning “safety standards for interstate pipeline facilities or interstate pipeline transportation” and delegates the authority to draft pipeline safety regulations to the Pipeline and Hazardous Materials Safety Administration (PHSMA). 49 U.S.C. § 60104(c).

However, regulations that concern a county’s purview (the general welfare of its constituents) are not necessarily preempted if they indirectly affect pipeline safety. *See, e.g., Tex. Midstream*



*Gas Svcs., LLC v. City of Grand Prairie*, 608 F.3d 200, 212 (5<sup>th</sup> Cir. 2010) (holding a setback requirement for compressor stations was primarily motivated to preserve “neighborhood visual cohesion, avoiding eyesores or diminished property value”). In order that the regulations are not preempted by the PSA, the regulations must affect aesthetics or other non-safety police powers. *Id.* at 212; *see also, e.g., Am. Energy Corp. v. Tex. E. Trans., LP*, 701 F. Supp. 2d 921, 931 (S.D. Ohio 2010) (“The PSA does not preempt Ohio property or tort law.”). Regulations directly affecting reclamation, water crossings, cleanup, or other similar matters important to landowners that affect their environment would likely not be preempted by the PSA.

### Section 368 Energy Corridor

The Energy Policy Act of 2005 Section 368 Energy Corridor document for region 4, 5, and 6, includes Wyoming. Converse County is situated in region 4 on the agencies map and currently there are no existing corridors identified in northeast Wyoming as the majority of the surface is privately owned making it difficult to identify energy corridors where federal permitting could assist in expediting future projects. There is local support for energy development opportunities in northeastern Wyoming, however with the little federal land in this area of the state it is suggested that in future land use planning, the BLM and USFS should engage with all counties that contain federal land in the northeastern portion of the state to assess whether there is interest in and support for a new corridor across federal lands in the area, with the understanding that the corridor would also have to cross private land. A new Section 368 energy corridor in northeastern Wyoming would expand the major interstate energy transmission network and help connect energy resources to demand.

### Wyoming Pipeline Corridor Initiative

Converse County supports the Wyoming Pipeline Corridor Initiative (WPCI), which provides incentives for the expansion of pipeline infrastructure for carbon capture, utilization and storage, and enhance oil recovery. Converse County is looking toward the consideration of other products such as LNG and this project could assist in facilitating those opportunities. The “point of delivery” for the purposes of sales tax is critical to participating counties.

#### **4.4.2.3 Pipeline and Transmission Line Resource Management Objective:**

- A. Pipeline development is managed responsibly and takes into consideration the health, safety, and welfare of the County’s citizens and natural resources.

#### **4.4.2.4 Pipeline and Transmission Line Priority Statements:**

1. Federal agencies should coordinate with the County at the earliest possible time whenever there is a proposal for a pipeline to cross the County.
2. Federal agencies should encourage and assist carbon capture and sequestration projects and development of pipelines to transfer carbon dioxide to markets.
3. Eminent domain on private property for the purpose of acquiring rights-of-way for pipelines should be discouraged.
4. Where possible, pipelines should be used as an alternative to flaring in Converse County.
5. Federal and state decisions regarding pipelines should be streamlined so long as it does not harm pre-existing uses or rights.



6. Unless encouraged otherwise by private landowners, pipeline development should be in the most direct path regardless of land ownership, with a preference to placement on federal lands.
7. Federal agencies, industry, and landowners should be encouraged to seek technical assistance from the Converse County Conservation District and Weed and Pest Control District to mitigate surface disturbance to facilitate soil and water conservation and re-establishment of native or other desired vegetation, which is beneficial to both livestock and wildlife.
8. Converse County encourages proper mitigation and reclamation practices throughout the County using existing ecological site descriptions to help determine mitigation and reclamation methods in coordination with Converse County Conservation District when possible. Federal agencies should coordinate with surface users and the Converse County Conservation District, as appropriate, when determining location and reclamation requirements for pipeline rights-of-way permits.
9. Pipelines should avoid water crossings and placement in river systems. Should a pipeline cross water bodies, boring and other methods that would reduce disturbance to the water body or riverbed are strongly recommended.
10. Federal agency land use and management plans shall contain a thorough discussion and evaluation of pipeline development, including the implications such development may have on surface land uses and Converse County economy.
11. Converse County supports the Wyoming Pipeline Corridor Initiative and all opportunities to participate in this effort should be considered and/or pursued within the County to the maximum extent possible.
12. Converse County supports a new Section 368 energy corridor in northeastern Wyoming to help expand the major interstate energy transmission network.
13. All opportunities for exporting products out of the state (e.g., natural gas, oil, CO<sub>2</sub>, etc.) should be considered to the maximum extent possible and allowed as a compatible use within the Wyoming Pipeline Corridor Initiative corridors.
14. The sales tax and/or “point of delivery” sales tax for the company laying pipe in the ground should be paid to the County in which the line is being buried in and the county should receive sales tax in proportion to the percentage of pipe buried within the County.
15. Require that transmission lines be routed around potentially irrigatable agriculture lands and be adjacent to existing access routes.

### **4.4.3 Alternative Energy**

#### **4.4.3.1 History, Custom, and Culture**

Converse County does not have an extensive history or culture associated with alternative energy prior to 2009. However, as part of the “all of the above” energy strategy of the State, Converse County acknowledges and supports responsible development of energy sources which bring economic opportunity, long term sustainability and grid stability. Converse County recognizes that electrical production is a key ingredient to economic gain and national security and



encourages the development of more electrical generation to support baseload needs and a zero carbon future.

However, the alternative energy industry is growing rapidly in Wyoming and Converse County has proven to be a beneficial location for wind energy development and has the potential for many other alternative energy sources. The County understands that the development of alternative energy is a component of energy infrastructure development. A provision in alternative energy plans must be made for proper reclamation for alternative energy sites as well as the disposal of “beyond useful life” equipment. Wyoming does not have a renewable portfolio standard goal to generate a certain amount of the state's electricity to renewable energy (National Conference of State Legislatures, 2019).

#### ***4.4.3.2 Resource Assessment and Legal Framework***

Converse County has the potential and interest for a variety of alternative energy resources. The location of the county within the state and near the interstate system makes it a suitable place for many of these alternative energy solutions. Wind energy is already a large market that has been tapped into within the County but other energy sources such as solar, nuclear, hydrogen, and carbon capture are also being explored within the County. These alternative energy sources are further described below in detail. Much of the alternative energy development within the County has been done on private lands on smaller scales, however there is great opportunity to expand onto federal lands into the future.

New development of alternative energy in the County needs to be considered on the basis of expanding existing available energy infrastructure. Converse County does currently have standards for development of solar and wind energy and these standards can be found in the [Converse County Wind and/or Solar Energy Siting Regulations](#). (Richardson, 2020)

The BLM authorized renewable energy projects on public lands using a right-of-way grant under Title V of FLPMA. The BLM requires project developers to submit bonds in an amount that the agency has determined will be adequate to cover the potential costs for hazardous liabilities, decommissioning, and reclamation of the project site, should the developer be unable or unwilling to conduct those activities. Currently, the BLM requires a minimum bond of \$2,000 per wind energy test site and \$10,000 per wind turbine. There are currently no minimum bond amounts for solar energy projects. (BLM, 2015)

#### ***Wind Energy***

The Converse County area averages more than 6.5 m/s wind speeds, making the County ideal for wind energy development (see Figure 12 below). There are currently several wind energy developments within Converse County. The following table lists the current wind developments in the County and the year they became operational. (Renewable Northwest, 2020; Richardson, 2020)





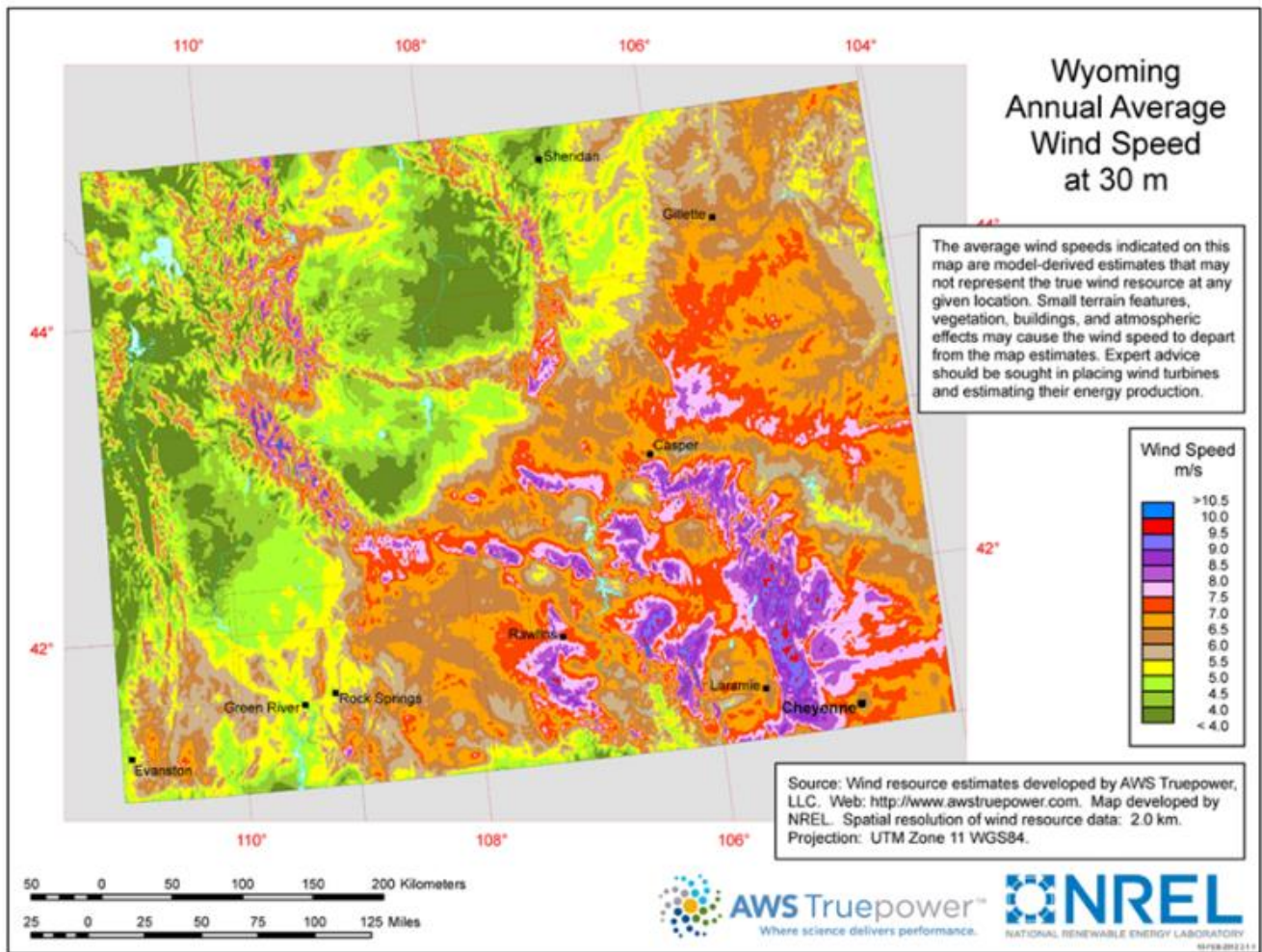


Figure 12: Wind resource map for the State of Wyoming.

**Table 3: Wind Energy developments within Converse County.**

Project Name	Capacity (MW)	Developers	Partners	Operating Status	Year
<b>Cedar Springs (Phase I, II, and III)</b>	533	NextEra		Operating	2020
<b>Pioneer Wind Park</b>	80	S Power	PacifiCorp	Operating	2016
<b>Top of the World</b>	200.2	Duke Energy	-	Operating	2010
<b>Rolling Hills Wind (Glenrock – phase II)</b>	99	PacifiCorp	enXco	Operating	2009
<b>Campbell Hill Wind</b>	99	Duke Energy		Operating	2009
<b>Glenrock III</b>	39	PacifiCorp	enXco	Operating	2009
<b>Glenrock I</b>	99	PacifiCorp	enXco	Operating	2008

Solar Energy

Solar energy has been implemented on a small scale on private lands within the County. There may be an opportunity in the future for solar energy projects to be developed on federal lands. (Richardson, 2020)

Nuclear Power

Nuclear power has been an untapped energy source within Wyoming. Nuclear generation is a fundamentally sound solution for baseload with zero carbon emissions. Converse County recognizes that the existing fleet of high-pressure nuclear reactors is nearing end of life and recommends the next generation of nuclear energy as a positive step in maintaining baseload and grid stability.

Over the last several years, the potential to expand nuclear power into Wyoming has increasingly grown and several areas throughout the state including Converse County have been scoped as areas for nuclear power growth. Natrium, which is a newer technology for nuclear power plants, has been the most discussion type of nuclear reactor within the state. Natrium is a sodium-cooled fast reactor that is paired with a molten salt energy storage system to flexibly operate with renewable power sources. This technology is faster and more affordable to build and its constant high operating temperature can be used to generate carbon-free heat or electricity to drive other energy-intensive manufacturing processes. (Office of Nuclear Energy, 2021)

Converse County has high potential for nuclear power as it is within easy travel corridors both for construction, transport of fuel, and transport of materials for continued operation due to its location on the interstate system. Nuclear energy is definitely an interest for Converse County and Glenrock’s, Gabe Johnston’s Power Plant, was on the list for potential places to build the first natrium plant in Wyoming.





### Hydrogen Power

Hydrogen is another alternative energy source that provides a lot of opportunity in Wyoming and Converse County. Hydrogen is a naturally occurring element and can be produced from a variety of sources including fossil fuels, water, and biomass and used as an energy or fuel source with zero greenhouse gas emissions. There are two methods for producing hydrogen, “green hydrogen” is hydrogen that is produced from water via electrolysis using renewable energy sources, whereas “blue hydrogen” refers to hydrogen sourced from a fossil fuel base combined with technology that captures carbon released in the production process. Extracted hydrogen can have a variety of uses including fuel cell technology; zero-emission fuel for vehicles, airplanes, water transport, and space rockets. It can be blended with natural gas to reduce greenhouse gas emissions; feedstock for ammonia and urea production; long-duration energy storage; and zero-emission process fuel for industrial applications like steel and cement manufacturing. (Wyoming Energy Authority, 2021)

Converse County has the opportunity to expand into the hydrogen power market if it made sense both from an economic and custom and culture standpoint in the county. The natural resources in the County along with the fossil fuels provide opportunity for Converse County to provide both green and blue hydrogen should they wish.

### Carbon Capture

Carbon capture is a process that involves capturing, transporting, and storing greenhouse gas emissions from fossil fuel power stations, energy intensive industries, and gas fields by injecting the captured greenhouse gases back into the ground. Carbon capture is not a zero emissions solution, however it does reduce emissions. (Climate Council, n.d.)

New technology for carbon capture has been proposed as a pilot in Wyoming. The desire is that improved carbon capture technologies will make it more likely that Wyoming coal can be an important supply for electricity into the future, as coal has been a Wyoming staple for many years.

#### **4.4.3.3 Alternative Energy Resource Management Objectives:**

- A. Development and management of alternative energy are done in a responsible manner that takes into consideration the economic viability of Converse County along with the health, safety, and welfare of the County’s citizens and the health and sustainability of the County’s natural resources.
- B. Alternative energy development is supported on public lands where it is both commercially feasible and does not disproportionately harm the potential multiple uses within Converse County.

#### **4.4.3.4 Alternative Energy Priority Statements:**

1. Federal agencies should evaluate alternative energy projects proposed for Converse County based on the same criteria applied to other projects and industries.
2. Federal agencies should coordinate with Converse County regarding regulatory processes for alternative energy that may impact the cultural and economic stability of the County.



3. Federal agencies should consider the development and siting of alternative energy in coordination with the County and stakeholders, including federal and state land lessees.
4. Alternative energy should be supported to further develop energy infrastructure and energy independence without encumbering the underlying mineral estate.
5. A reclamation plan must be designed before alternative energy projects are approved on public lands.
6. Federal agencies shall consider the effects of alternative energy developments on other land uses and neighboring properties before approving any proposed projects.
7. Federal agency land use and management plans shall contain a thorough discussion and evaluation of alternative energy development, including the implications such development may have on surface land uses and the Converse County economy.
8. Converse County supports private property rights and encourages the minimization of conflicts with existing uses and the avoidance of eminent domain.
9. Federal agencies shall require a full analysis of the impact each decision will have on the local economy. If it is determined that the decision will have significant negative impact on the local economy, the alternative/decision is not supported by Converse County.

## 4.5 AIR QUALITY

### 4.5.1 History, Custom, and Culture

Clean air in the County is important to citizens and visitors. Wildfires burning on federal lands can create air quality issues in the summer and fall. Dust from roads and rangelands can negatively impact air quality, mostly during drought conditions. Clean air is key to people living in this County and those who visit.

### 4.5.2 Resource Assessment and Legal Framework

Air quality is important to the health, safety, and welfare of Converse County's residents. Under the Clean Air Act of 1970 (42 U.S.C. §7401 et seq.), the U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing National Ambient Air Quality Standards (NAAQS). Standards were established for total suspended particulate matter, carbon monoxide, ozone, nitrogen dioxide, and sulfur dioxide. The EPA, working with states and tribes, identifies areas as meeting (attainment) or not meeting (nonattainment) the NAAQS standards. The Clean Air Act requires states to develop a plan to attain air quality standards in their state. These plans are called State Implementation Plans (SIPs) (O. EPA, 2014).

In Wyoming, local enforcement of many air pollutant regulations is delegated to the Wyoming Department of Environmental Quality (DEQ) (R. 08 EPA, 2014). DEQ's Air Quality Division has established standards for ambient air quality necessary to protect public health and welfare; ambient air refers to that portion of the atmosphere, external to buildings, to which the general public has access (WDEQ, 2018b). DEQ has also established limits on the quantity, rate, and concentration of emissions of various air pollutants from various sources including, but not limited to:



- Vehicle engines
- Construction/Demolition activities (asbestos)
- Handling and transport of materials
- Agricultural practices
- Fuel-burning equipment
- Oil and gas operations
- Manufacturing operations

The degradation of air quality in Converse County comes from both natural and man-made sources:

- Wind-carried dust (especially during periods of drought)
- Wildfire emissions
- Emissions from the open burning of vegetation and trash
- Emissions from farming and agricultural operations
- Emissions from industrial operations
- Dust from unpaved roadway use
- Energy production

The WDEQ Air Quality Division maintains an air quality monitoring location northwest of Douglas. The monitoring objective of the Converse County Monitoring Station is to obtain ambient air quality and meteorological data in an oil and gas development area intermingled with rural residential populations (Wyoming Air Quality Monitoring Network, 2020). The USFS’s guideline is to minimize effects and impact of smoke for each fire management activity on identified smoke-sensitive areas using “best available control measures” monitoring smoke impacts, and following smoke management requirements established by the WDEQ. (Forest Service: Rocky Mountain Region, 2005)

#### **4.5.3 Air Quality Resource Management Objectives:**

- A. Management of federal lands consider clean air practices and limit air pollution within Converse County without expansion of rules and policies that would act as an impediment to economic development.
- B. Converse County is cooperated, coordinated, and consulted with to reduce, eliminate, or mitigate any site-specific degradation of air quality.

#### **4.5.4 Air Quality Priority Statements:**

1. Beneficial uses, such as prescribed burning, wood burning for heat, historical agricultural practices, and other established activities within the custom and culture of Converse County that may degrade air quality standards should be allowed to continue.
2. Alternatives to flaring to decrease its impact on air quality within Converse County should be explored and encouraged.
3. Federal, state, and local agencies should work together to educate all stakeholders involved to develop best management practices concepts and plans to protect air quality in Converse County.



4. Federal agencies should implement best management practices and take aggressive forest, range, and grassland management action to decrease the number of summer wildfires to help improve air quality.
5. Federal agencies should ensure there is a balance between good air quality and economic growth within Converse County.
6. Federal agencies should require dust mitigation in all development and reclamation plans to increase air quality standards.
7. Federal agencies should consider the impact a permitted activity may have to private or public unpaved roads and require dust mitigation plans whenever the planned activity will cause dust disturbances.
8. Converse County requests to be notified of any present and future air quality designations within the County.
9. Business, industry, and land management agencies should plant windbreaks, plant living snow fences, or other ideas to reduce or eliminate dust.
10. Converse County requests to be notified of and participate, as appropriate, in any local, state, regional, and/or federal land planning process that impacts managing and monitoring air resources affecting the County.
11. Converse County supports Wyoming's primacy over air quality standards with the Wyoming Department of Environmental Quality as the primary authority concerning setting and enforcing standards within the State and County.
12. All air quality data considered by federal agencies should be credible data as is specified in each of their agency handbooks and should be legally collected.



## 4.6 CLIMATE CHANGE

### 4.6.1 History, Custom, and Culture

Converse County relies heavily upon the agriculture and energy industries to support the local economy. Increased temperatures, reduced precipitation, and changes in airflow have the potential to drastically affect the economy of the County. Converse County is committed to preserving the health of its citizens and its economy and, as such, is requiring cooperation and open communication with federal agencies when assessing the effects of proposed federal actions and climate change analysis within Converse County.

### 4.6.2 Resource Assessment and Legal Framework

The climate of Converse County is classified as semi-arid. Temperatures show a wide range between summer and winter and between daily maximums and minimums. The average annual temperature is 45.9 degrees. Abrupt changes in the weather are common. The lowest temperatures occur when cold air masses from Canada flow into the area. Winter snowfall is frequent, and blizzards occur several times each winter.

NEPA-compliant documents may include the following analyses of the proposed action regarding climate change: (1) the extent to which the proposed action and all reasonable alternative(s) contribute to climate change through greenhouse gas (GHG) emissions; (2) the effect of a changing climate over the life of the project on the proposed project including flooding considerations and changes in precipitation; and (3) implications of climate change on the proposed project including cumulative impacts to resource availability.

Federal agencies are required to consider direct, indirect, and cumulative effects when analyzing any proposed federal action and its environmental consequences. When assessing direct and indirect climate change effects, agencies should take account of the proposed action, including “connected” actions, subject to reasonable limits based on feasibility and practicality. In addition, emissions from activities that have a reasonable nexus to the federal action (e.g. cumulative actions), such as those activities that may be required either before or after the proposed action is implemented, must be analyzed. (National Environmental Policy Act 1969, 1969)

### 4.6.3 Climate Change Resource Management Objective:

- A. Climate change analysis is conducted on a local level that considers immediate harm a potential decision would have on Converse County.

### 4.6.4 Climate Change Priority Statements:

1. Additional climate change scientific data should be included in all NEPA planning processes that meets the credible data criteria, even if not produced by a federal agency.
2. When climate change analysis is required, such analysis should occur on a regional level, the region should be identified through consultation and coordination with Converse County.



3. Federal agencies shall require a full analysis of the impact each decision will have on the local economy. If it is determined that the decision will have significant negative impact on the local economy, the alternative/decision is not supported by Converse County.
4. Management decisions that are proposed primarily to regulate greenhouse gases through climate change analysis that could harm the local economy are not supported.
5. The costs and benefits of any regulatory changes or management decisions adopted to address climate change should be quantified.



## CHAPTER 5: WATER RESOURCES

### 5.1 OVERVIEW

Water resources are fundamental to the economic future and the quality of life in Converse County. Surface water has been and continues to be a critical water source for agriculture, towns, electrical generation, and recreation. Historically, ground water has been used for domestic, commercial, and agricultural purposes. For the foreseeable future, increased ground and surface water sources will be necessary to meet the demands of new and existing users including municipal, domestic, commercial, industrial, agricultural, fire suppression, and energy development and production. The quality of water resources needs to be protected while providing for increased use. The quantity of water resources being used should also be monitored, while encouraging conservation measures for large volumes of water such as is necessary for oil shale fracking.

Converse County is approximately 60 miles wide and 84 miles long at its longest point. The North Platte River bisects the county across the lower third, flowing from west to east. From the flood plains along the river.

Topography to the north is predominately rolling, open plains with several areas of rugged pine ridges. The major drainage in the northern part of the County is the Cheyenne River and associated tributaries: Dry Fork Cheyenne, Antelope Creek, Lightning Creek, and Twenty Mile Creek and smaller tributaries such as Lightening Creek, Walker Creek, Box Creek, and Dry Creek. Most of the streams are ephemeral and run water during snow melt and after storms. Intermittent water flows, natural and/or man-made systems to store surface water, and/or to produce ground water are the water sources. Several industrial water source wells have been drilled to depths as deep as 6,000 feet to furnish water for water flooding oil formations, as well as fracking and drilling operations. There are scattered artesian wells. This area is dependent on rain and snowfall, reservoir and well water, with average annual rainfall below twelve inches.

Topography in the southern portion of the County is dominated by Laramie Peak (10,276'), which is just south of the County line, and is part of the Laramie Range of the Rocky Mountains. The elevation rapidly descends from this mountain range to the foothills to the north, before the land slopes gently towards the river. Scattered throughout this terrain are several flowing streams that feed into the North Platte River, such as Deer Creek, LaPrelle Creek, Box Elder, Labonte Creek, Wagonhound Creek. Annual steam run-off occurs primarily from snowmelt and precipitation in the headwater areas during the late spring and early summer. Low flows in the river occur naturally during the winter, with seasonal levels managed predominately by upriver dams.

Recharge to aquifers is greatest from March through June due to stream runoff from accumulated snow in the headwater areas augmented by the twelve inches of average rainfall. The headwater streams, which originate in the Medicine Bow National Forest, are functioning properly. At this time, none of the streams in Converse County have been designated "impaired."





However, wildfires over the last several years have created multiple erosion problems, with some sediment reaching stream beds, which could potentially impact that designation in the future. (Converse County, 2015)

Refer below for maps of the watersheds in Converse County and basins in the state (Figure 14 and Figure 15).



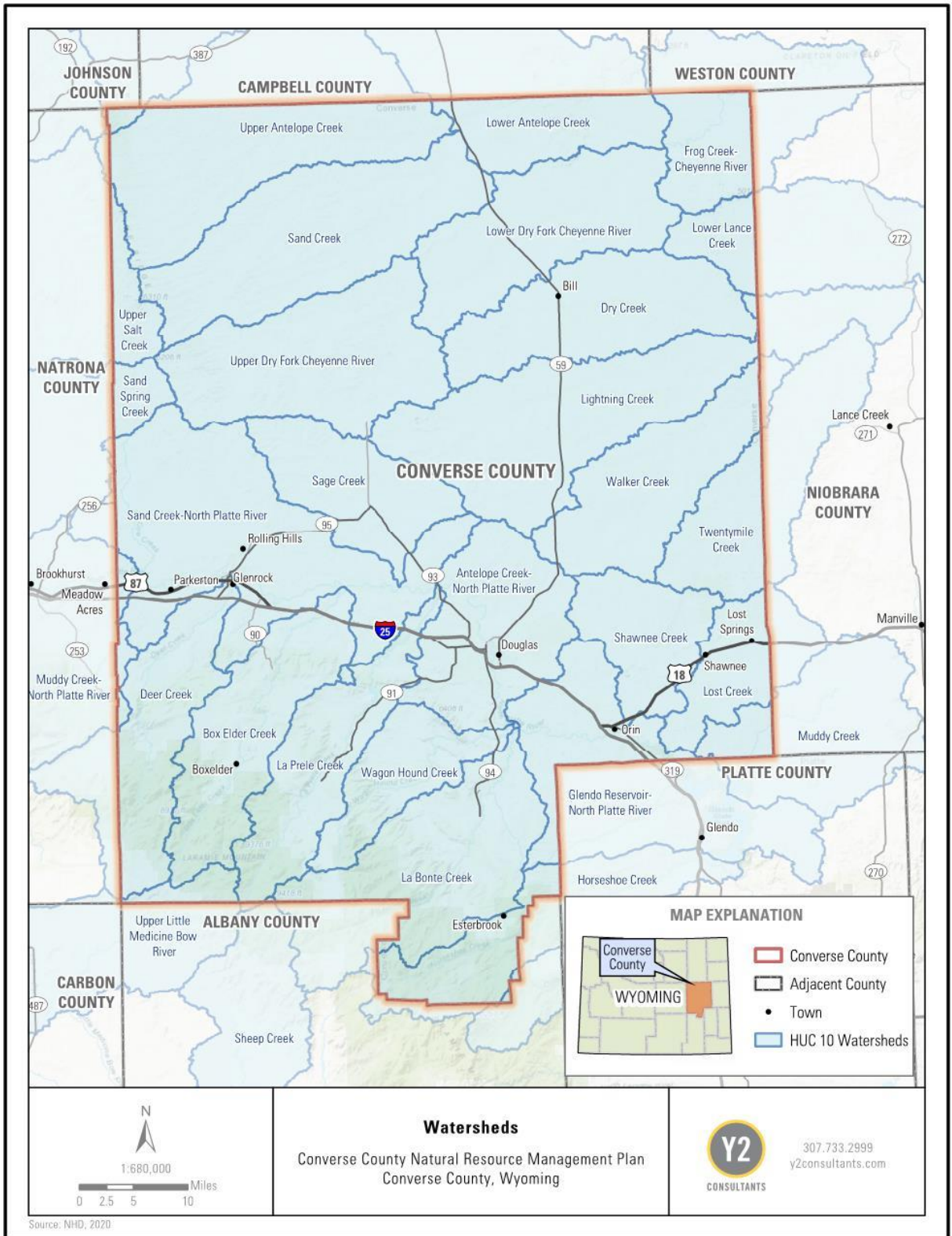


Figure 13. Converse County watersheds.



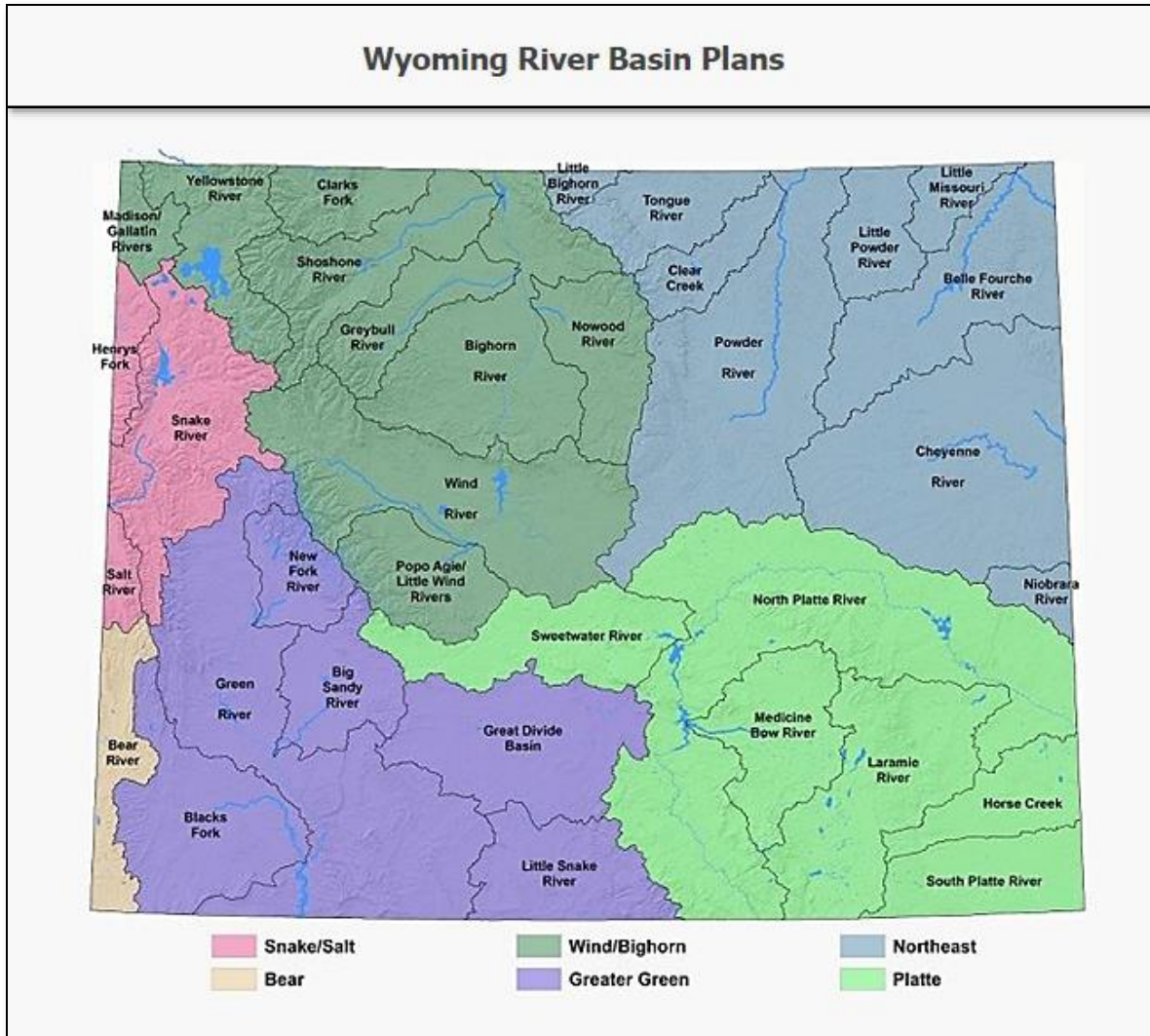


Figure 14. Wyoming State Geologic Survey (WSGS) map of the Wyoming River Basin Plan divisions. (Wyoming State Geologic Survey, 2020)

## 5.2 IRRIGATION AND RELATED INFRASTRUCTURE

### 5.2.1 History, Custom, and Culture

Irrigation and agricultural practices contribute to the economic base of Converse County and are integral to the stability of livestock production, wildlife habitat, and farming while maintaining the local custom and culture of the County. Due to the location and additional water, cropland and irrigated fields often provide key habitat for big game and other wildlife throughout all times of the year.

The primary use of irrigated land in Converse County is for forage production. Many ranchers in the area have relied on irrigated forage production for winter feed since the early development of irrigation practices in the County.

### 5.2.2 Resource Assessment and Legal Framework

The primary use of irrigated land in the river basins spanning Converse County is forage production. Many ranchers in the area have depended on irrigated forage production for winter feed since the early development of irrigation in the basin. By the late 1800s bottomland irrigation for forage production was relatively common. In 1972 over 80% of water use in northeast Wyoming was for irrigation. (HKM Engineering Inc. et al., 2002)

In 2006 there were approximately 45,000 acres of irrigated agricultural land within the Pathfinder to Guernsey subbasin region of Converse County. Across the northern half of Converse County, the primary irrigation acres span the Dry Fork of Cheyenne River and Antelope Creek combine to form the Cheyenne River, totaling approximately 3000 acres (HKM Engineering Inc., 2002a; WWDC, 2006). (Additional information on crop production is available in section 8.1 Agricultural Production.)

According to the U.S. Geological Survey (USGS) Water Resources Report, irrigation influences the flow rates and timing of both perennial and ephemeral streams in the County. Return-flow from irrigation can maintain perennial flow in naturally ephemeral streams. During non-irrigation seasons both perennial and ephemeral streams in irrigated areas experience low flows. The use of reservoirs for retaining irrigation water can lower peak flow rates in systems downstream. This water retention can also extend how long spring and early summer runoff is held in the system before being released downstream. This can extend the season prior to low flow and increase low flow rates during the non-irrigation season for downstream systems. The result is peak and low flows that are more moderate; this decreased flow fluctuation can influence the ecology of downstream fisheries, habitat, and more efficient use of available water. (Plafcan et al., 1993)

Additional information regarding irrigation acres, conveyance, and capacity can be found in the Wyoming Water Development Commission Irrigation Survey System Reports located [here](#)<sup>23</sup>.

#### 1866 Act

In 1866 Congress passed legislation that recognized a pre-existing right to construct, operate, and maintain water systems on federal lands. A ditch granted through the 1866 Act comes with a property right and the constitutional protections given to property rights. Therefore, the USFS, BLM, or any other agency generally cannot regulate the use of an 1866 Act ditch, so long as the right of way is operated and maintained in accordance with the scope of the original rights granted. See *Western Watershed Project v. Matejko*, 468 F.3d 1099, 1104-06 (9<sup>th</sup> Cir. 2006). The scope of the easement for an 1866 Act ditch is defined by the physical extent of the on-the-ground easement, plus adjacent lands. The extent of adjacent lands included in the easement is a question of state law. In Wyoming, it is whatever is reasonable and necessary to maintain the ditch. For a ditch to qualify under the 1866 Act, it must have been completed and used before the lands were set aside as a National Forest. No formal agency documentation is necessary, but there must be proof that a current water right exists in the ditch. See 43 U.S.C. § 661 (repealed in part Oct. 21, 1976) (1866 Act) (also known as R.S. 2339 and 2340). Like R.S. 2477, the 1866 Act was repealed with the enactment of FLPMA, but the prior existing rights were explicitly retained by Congress (*Western Watershed Project*, 468 F.3d at 1106).





### **1891 Act**

In 1891 Congress again granted easement rights to ditch owners through federal lands that allows the ditch owner to construct, operate, and maintain water systems on federal lands. Act of March 3, 1891 (“1891 Act”), 26 Stat. 1095 (codified at 43 U.S.C. §§ 946–949) (repealed Oct. 21, 1976). Just like an 1866 Act ditch, the granting came with a property right and cannot be regulated, so long as the right of way is operated and maintained in accordance with the scope of the original rights granted. The scope of the ditch is defined by the physical extent of the on-the-ground system, plus fifty feet from the marginal limit thereof. Also, upon a satisfactory showing by the water company, the easement can include those adjacent lands deemed necessary for the proper operation and maintenance of the system. 1891 Act ditch rights are acquired through formal application and approval by the Secretary of Interior before October 21, 1976 (*Pine River Irrigation Dist. v. US*, 656 F. Supp. 2d 1298, 1321 (D. Colo 2009)). Also, like 1866 Act ditches, the 1891 Act was repealed with the enactment of FLPMA, but the prior existing rights were explicitly retained by Congress.

### **Colorado Ditch Bill Act**

The Colorado Ditch Bill Act of 1986 amended Title V of FLPMA to authorize the secretary of Agriculture to issue permanent easements without charge for water conveyance systems used for agricultural irrigation or livestock watering. The act requires applicants to submit information concerning the location and characteristics of the water conveyance system necessary to ensure proper management of National Forest System lands. Extensions or enlargements constructed after October 21, 1976, do not qualify for an easement and must be covered by other authorities (USFS, n.d.-a). To obtain a Ditch Bill easement, the ditch user had to relinquish any other easements the ditch user might have had under other federal statutes. Thus, a Ditch Bill applicant would have to waive any 1891 and 1866 rights they may have. Additionally, applications had to be submitted by December 31, 1996.

Granting easements under the Colorado Ditch Bill Act is not a USFS discretionary decision. If an applicant meets the Colorado Ditch Bill Act criteria, he or she is entitled to an easement and the decision to grant the easement does not constitute a federal action subject to NEPA analysis or review. Conditions of the easement, including operations and maintenance activities may require NEPA analysis and review (USFS, n.d.-a).

### **5.2.3 Irrigation and Related Infrastructure Resource Management Objectives:**

- A. Irrigation and water systems are managed to ensure current and future access to irrigation water and to promote the health, longevity, and sustainability of the County’s water.
- B. Water rights are protected from exactions and irrigation ditch easements are protected for the current and future viability of irrigation agriculture in Converse County.

### **5.2.4 Irrigation and Related Infrastructure Priority Statements:**

1. Federal agencies should support the update, improvement, and continued use of irrigation infrastructure throughout the County to improve overall watershed health.



2. Federal agencies should work with appropriate partners, agencies, and the Converse County Conservation District to promote the efficient delivery and use of irrigation water.
3. Converse County supports the use of irrigation water for beneficial use.
4. Federal agencies should develop off channel storage facilities that would allow excess spring runoff to be captured and used later in the growing season provided there is support from surrounding landowners and water users.
5. Federal agencies should allow consumptive water right owners to improve water quality and water-use efficiency to provide additional water for economic development and agriculture.
6. Federal agencies should consider the effects of irrigation infrastructure while allowing for other multiple uses on federal land.
7. Federal agencies should support the continued use, maintenance, and protection of historical irrigation ditch rights-of-way through federal lands whether those rights are permanent or require periodic renewal.
8. Any renewal of rights-of-way for irrigation ditches crossing federal lands should be done expeditiously without impacting the historical use.
9. The imposition of instream flows as a condition precedent for renewal of historical irrigation ditch rights-of-way is not supported by Converse County.
10. Federal agencies should use best management practices for erosion control on rangelands and irrigated cropland by local cooperators.
11. Federal agencies should support increased productivity of irrigated lands to increase and/or maintain animal unit months in Converse County.
12. Federal agencies should allow for the option to use mechanized equipment for maintenance of dams and water delivery structures regardless of use and access restrictions.

## 5.3 DAMS AND RESERVOIRS

### 5.3.1 History, Custom, and Culture

Dams and reservoirs are located across Converse County and are used for various functions, including storage for irrigation, recreation, industrial, municipal, flood control, and fish propagation. The Wyoming Water Development Office's (WWDO) Dam and Reservoir Planning division works to promote dam and reservoir maintenance and improvement. Funding from the Dam and Reservoir Division account is available for the development of new reservoirs that are 2,000 acre-feet (AF) or larger, or the enlargement of currently existing reservoirs (minimum of 1,000 AF increased capacity). Funding is also available to Level I and Level II feasibility studies identifying possible water storage projects. (WWDC, n.d.)

The Platte River Basin Water Plan and the Northeast Wyoming River Basins Plan evaluated all reservoirs considered 'major reservoirs' within the surface water assessment. Major reservoirs are defined as reservoirs with equal to or greater storage capacity than 500-acre feet. There are two reservoirs listed in the plans that are within Converse County, the Betty No. 1 Reservoir and the La Prele Reservoir. Betty No. 1 Reservoir, constructed in 1954, is located on Bear Creek in the northcentral region of the County. The Betty No. 1 Reservoir receives water from Bear and



Lonetree Creeks and holds 1,345 af active capacity (HKM Engineering Inc., 2002b). The La Prele Reservoir is located on La Prele Creek about 12 miles west of Douglas. The La Prele Reservoir has been classified at high risk for failure due to cracking in the buttresses. County Emergency Management and the County Commissioners are regularly updated on the dam status and needs for replacement as there is a potential for loss of life and county infrastructure (Natural Bridge Park) if the dam were to fail. Work is currently being done with the State of Wyoming and federal agencies to secure funding for replacement of the reservoir.

### **5.3.3 Dams and Reservoirs Resource Management Objective:**

- A. Quality of all dams and reservoirs is preserved and water resources are developed responsibly to provide well maintained, accessible, and functional dams and reservoirs.

### **5.3.4 Dams and Reservoirs Priority Statements:**

1. Converse County should be consulted regarding federal land management decisions that may impact water quality, yields, and timing of those yields; impacts on facilities such as dams, reservoirs, delivery systems, or monitoring facilities; and any other water-related concerns.
2. Federal agencies should support and encourage the construction of water storage within Converse County.
3. Federal agencies should provide proper management, maintenance, and improvements of all dams, especially high hazard dams in Converse County.
4. Federal agencies should maintain the primary use of all reservoirs within Converse County for the purpose for which they were originally intended, with the understanding that such use must consider and maintain the highest and best use for citizens within the County and protect current water rights.
5. Recreational and consumptive use of water should be supported to enhance the local Converse County economy in a manner that maintains the quality and quantity of the resource.
6. Projects from the Small Water Development Projects Program, conducted by Wyoming Water Development Commission, should be implemented within Converse County to increase water storage capacity to meet needs of agriculture, industry, recreation, and municipalities.
7. Federal agencies should allow for the option to use mechanized equipment for maintenance of dams and water delivery structures regardless of use and access restrictions.

## **5.4 WATER RIGHTS**

### **5.4.1 History, Custom, and Culture**

Wyoming water laws and regulations are governed by Title 41. By Wyoming law, all surface and groundwater belong to the State. The Wyoming State Engineers Office is responsible for management of these waters and protecting existing water rights and resources.





The Wyoming State Engineer’s Office (WSEO) administers the system of water rights within the state and Wyoming’s water sharing agreements with other states. The WSEO cooperates with local management agencies, which includes water conservation districts, water conservancy districts, ground water management districts, water and sanitation districts, towns and cities, and irrigation districts. These local agencies may contract with the Bureau of Reclamation to build reservoirs and other water storage projects.

*“Water being essential to industrial prosperity, of limited amount, and easy of diversion from its natural channels, its control must be in the state, which, in providing for its use, shall equally guard all the various interests involved.” (Wyoming State Constitution)*

Early settlers of Converse County relied on the doctrine of prior appropriation to develop economic opportunities for the citizens of the county. Many of those early water rights and uses continue to exist within the county. In turn, much of the county’s custom and culture reflects the expectation that water rights will continue to be protected.

#### **5.4.2 Resource Assessment and Legal Framework**

Wyoming is a Prior Appropriation Doctrine state, meaning that water rights are established by actual use of the water, and maintained by continued use and need (Wyo. Stat §41-3-101). Wyoming prioritizes water uses as “preferred uses” and all other uses (Wyo. Stat. § 41-3-102). Preferred uses include “rights for domestic and transportation purposes, steam power plants, and industrial purposes.” *Id.* Preferred uses have the right of condemnation against all other water uses and those lesser preferred uses. *Id.* Wyoming ranks uses in the following order: (1) Water for drinking purposes for both man and beast; (2) water for municipal purposes; (3) Water for the use of steam engines and for general railway use, water for culinary, laundry, bathing, refrigerating (including the manufacture of ice), for steam and hot water heating plants, and steam power plants; and (4) industrial purposes. *Id.*

In Wyoming, a water right is a right to use the water of the state, when such use has been acquired by the beneficial application of water under the laws of the state relating thereto, and in conformity with the rules and regulations dependent thereon. Beneficial use shall be the basis, the measure and limit of the right to always use water. Thus, in Wyoming, a person must (1) obtain a permit; (2) demonstrate a beneficial Use and (3) use the water in conformity with the permit to have a valid water right. Wyo. Stat. § 41-3-101. Wyoming case law also generally holds that water rights are appurtenant to the land and the means of conveyance of the water (i.e., ditches, pipes, and conduits) pass with the transfer of the land. *See Toltec Watershed Improvement Dist. V. Associated Enterprises, Inc.*, 829 P.2d 819 (Wyo. 1992); *Frank v. Hicks*, 35 P. 475 (Wyo. 1894). Wyoming also allows for temporary change in water use of a currently valid water right for up to two years with approval from the Wyoming State Engineers Office, so water right users may transfer their water rights for other uses on a temporary basis. Wyo. Stat. § 41-3-110.



Although all surface and groundwater in Wyoming belongs to the state, water rights are considered a property right that can be conveyed or reserved in the same manner as real property. Thus, water rights are widely accepted as property of the holder and can be protected under the 5<sup>th</sup> and 14<sup>th</sup> Amendments of the United States Constitution when taken through regulation. See *Klamath Irrigation Dist. v. United States*, 113 Fed. Cl. 688, 691 (2013).

#### **5.4.3 Water Rights Resource Management Objectives:**

- A. State water right laws and policies are supported for all waters on public and private lands within Converse County.
- B. Wyoming water law and policy controls all water rights within Converse County and is supreme to any federal policy or regulation.
- C. Federal agencies shall never use exactions to acquire water rights.

#### **5.4.4 Water Rights Priority Statements:**

1. Federal agencies should not purchase water rights from state or private water rights owners.
2. If a federal agency needs water for a particular beneficial use, the agency should lease water rights from the state or private water rights owners instead of acquiring a permanent water right.
3. All efforts by federal agencies to limit or control appropriations and use of water, such as through the denial of rights-of-way necessary to put the water to beneficial use are opposed.
4. Federal agencies should promote water policies and projects that ensure that the unappropriated water is put to beneficial use within the local watersheds, keeping Converse County water in Converse County.
5. Placing water rights in the name of a federal agency when the water right is applied for and proved upon by a private individual or corporation, or as the condition of any permit, is not supported.
6. Water rights shall not be acquired through exactions as a condition precedent of any permit.
7. It is the position of Converse County that in stream flow requirements are exactions.
8. Federal agencies should recognize water rights as a private property right that may be owned separately from federal land when allowed by Wyoming law.
9. Separate federal regulations on Wyoming waters are opposed; Converse County supports Wyoming control of Wyoming waters.
10. Federal agencies should support policies and actions that will protect existing water rights and water uses within the County for long-term conservation and enhancement of our natural resources while contributing to the economic stability of the County and its residents.
11. Federal agencies should recognize historic and customary beneficial uses under Wyoming State Law to take precedence over all in-stream flow use designations.
12. Federal agencies should work with local, state, and other federal agencies to encourage and support state control of water rights and to maintain opportunities for future water right allocations.



13. Federal agencies should work with Converse County to educate and inform cooperators regarding Wyoming water laws.

## 5.5 WATER QUALITY

### 5.5.1 History, Custom, and Culture

Water quality is important to the health and quality of life of Converse County residents. The EPA and WDEQ (Wyoming Department of Environmental Quality) establish, administer, and monitor standards, policies, rules, and regulations for ground and surface water quality. Converse County is located in the southeast WDEQ District.

### 5.5.2 Resource Assessment and Legal Framework

#### *Surface Water Quality*

Wyoming surface water quality standards (Water Quality Rules and Regulations, Chapter 1) are developed with the federal Clean Water Act (CWA) and the Wyoming Environmental Quality Act (WEQA). These standards include water quality criteria, antidegradation provisions, and designated surface water uses (WDEQ, 2018a). The Wyoming Water Quality Assessment Program prepares and submits the Integrated 305(b) and 303(d) *Report to the EPA* biennially to maintain compliance with the CWA (WDEQ, n.d.-e). Policies for antidegradation were last updated in September 2013; Surface Water Quality Standards were last updated in April 2018. Surface Water Quality Standards are reviewed triennially as per the requirements of the CWA (WDEQ, n.d.-d). Surface water designated uses are separated into classes and recreational designated uses. For more information on these classifications refer to the Wyoming Surface Water Classification List and the Recreation Designated Uses Web Map located [here](#)<sup>24</sup>. (WDEQ, n.d.-b, 2013).

The WDEQ's Wyoming Pollutant Discharge Elimination System (WYPDES) program provides permits that contain limitations and conditions that will assure that the state's surface water quality standards are protected. Through this program, operators of a point source discharge are required to receive coverage under a WYDPDES discharge permit. (WYDEQ, n.d.)

#### *Clean Water Act*

The Clean Water Act (CWA) is the federal regulatory mechanism that regulates surface water quality. The CWA gives the EPA and Army Corps of Engineers regulatory jurisdiction over all "navigable waters" also known as "Waters of the United States." The CWA makes it illegal to discharge a pollutant from a point source into a navigable water unless a permit is obtained. The definitions surrounding what a "navigable water" or "Water of the United States" has been a creature of controversy in the past several years and there is still some uncertainty as to what bodies of water constitute as Waters of the United States and what qualifies as a "point source." From the earliest rulemaking efforts following adoption of the CWA in 1972 to the agencies' most recent attempts to define "Waters of the United States" in 2015, the lack of a tangible statutory definition has generated hundreds of cases spanning dozens of courts to ascertain the span of the EPA's jurisdiction. *See* Federal Register Vol. 85, No. 77 22255 (April 21, 2020).



There have been several changes to the CWA regulations in recent years with the most recent in September 2020. However, with the new administration in 2021 it is likely these regulations could change.

On September 11, 2020, the EPA published final CWA regulations that were intended to clarify some of the definitions and clearly set forth the jurisdictional limits of the CWA. The final regulations:

1. Include four simple categories of jurisdictional waters;
  - a. Territorial seas and navigable waters
  - b. Tributaries of jurisdictional waters
  - c. Lakes, ponds, and impoundments that contribute surface water flow to a jurisdictional water in a typical year
  - d. Wetlands adjacent to non-wetland jurisdictional waters
2. Provide clear exclusions for many water features that traditionally have not been regulated, including ditches, non-adjacent wetlands, groundwater, treated water, and ephemeral features; see 33 C.F.R. § 328.3.
3. Define terms in the regulatory text that have not been defined, including adjacent wetlands, ephemeral, upland, and tributaries.

The CWA regulations are currently being challenged in federal court in the Federal District of Northern California, Federal District of Colorado, Federal District of Arizona, and the Federal District of Virginia. On August 30, 2021, the Federal District Court of Arizona issued a vacatur of the 2020 rule claiming that the rule was too flawed to keep in place. On September 3, 2021 the EPA announced on their website that they will no longer follow the 2020 regulations due to the Arizona Court's decision. The EPA in turn announced that it will be interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice. The Pre-2015 regulatory definitions and guidance documents can be found [here](#).

### ***Groundwater Quality***

The WDEQ Water Quality Division (WQD) Groundwater Program works to protect and preserve Wyoming's groundwater by permitting facilities to prevent contamination and investigating and cleaning up known releases.

### ***Groundwater Pollution Control Program***

The WQD Groundwater Pollution Control (GPC) Program tracks potential impacts to Wyoming's groundwater through evaluation of activities permitted at federal, state, and local levels. The GPC Program assists federal agencies with the NEPA process on large projects such as the Moneta Divide and the Pinedale Anticline. This program also assists private landowners with suspected contamination of their wells. The GPC Program also evaluates the adequacy of water supply sources and wastewater collection and treatment facilities during subdivision applications to ensure groundwater will not be impacted. (WDEQ, n.d.-a)

The Supreme Court recently opined that groundwater can be a point source to transfer pollutants to Waters of the United States when the groundwater is a "functional equivalent of a direct



discharge...” *County of Maui, Hawaii v. Hawaii Wildlife Fund*, 140 d. 1462, 1468 (2020). To determine whether groundwater is a functional equivalent of a direct discharge, the Supreme Court clarified that “distance and time” to surface water are major factors in determining if a CWA permit is required for any groundwater discharges. *Id.* at 76-77. Thus, there can be some circumstances in which some groundwater discharges may require CWA permitting.

Under the CWA point source is defined as “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” The CWA does not provide a detailed definition of nonpoint sources but rather they are defined by exclusion – anything not considered a point source. All nonpoint sources of pollution are caused by runoff of precipitation over or through the ground. This includes stormwater associated with industrial activity, construction-related runoff, and discharges from municipal separate storm sewer systems.

### **Impaired Waters**

There are no impaired waters within Converse County. The Wyoming 2020 Integrated 305(b) and 303(d) Report includes the North Platte and Cheyenne River Basins and was completed in 2020. This report includes the 305(b) stream classification/designation list and the 303(d) use and contaminate lists for the North Platte River Basin. (WDEQ & WQD, 2018)

### **Subdivision Review**

The WQD Water & Wastewater Program (W&WP) works to ensure safe and adequate supplies of drinking water and the proper disposal of wastewater. Subdivision reviews are governed by Water Quality Rules and Regulations, Chapter 23 and Wyoming Statutes 18-5-301 to 315. The County reviews subdivisions with one to five lots with the ability to defer review to the DEQ. (WDEQ, n.d.-c)

### **5.5.3 Water Quality Resource Management Objectives:**

- A. Water quality within Converse County is maintained or improved for current and/or future uses using legally obtained credible data.
- B. Watersheds within Converse County are managed and maintained for productivity and water quality.

### **5.5.4 Water Quality Priority Statements:**

- 1. Federal agencies should prioritize locally led efforts to monitor and improve water quality, and where feasible, complete in conjunction with existing state and federal agencies with the same mandate.
- 2. Converse County encourages the development of new technology to use produced water or wastewater from energy extraction for other uses.
- 3. Federal agencies should require baseline water quality sampling and cataloguing of all collected data for wells (including injection wells) drilled on federal lands consistent with Wyoming Oil Gas Conservation Commission rules.



4. Federal agencies should consult Converse County regarding federal land management decisions for their potential impact on water quality, yields and timing of those yields; impacts on facilities such as dams, reservoirs, delivery systems, or monitoring facilities; and any other water-related proposal.
5. All water quality data considered by federal agencies should be credible data as is specified in each of their agency handbooks and should be legally collected.
6. Any action, or lack of action, or permitted use that results in a significant or long-term decrease in water quality or quantity is not supported.
7. Federal agencies should support implementation of land management actions and practices that contribute to or maintain healthy drainages, watersheds, and aquifers.
8. Federal agencies should encourage good management and maintenance of watersheds to retain and slowly release water for desired plant, animal, and human uses, and to reduce the risk of flash floods.
9. The USFS, BLM, EPA, WDEQ, and other relevant public agencies should coordinate with Converse County to ensure that management of watersheds and aquifers, including municipal watersheds, meets the multiple needs of residents and promotes healthy forests and rangelands.
10. Federal agencies should support reclamation activities on mined lands that improve water quality and the function of streams channels, floodplains and wetlands for better productivity.
11. Federal agencies should support to minimize water concentration, erosion, and delivery of polluted water and sediment to streams in construction and management of roads, bridges, culverts, cut slopes, fill slopes, and artificial surfaces,
12. Federal agencies should implement land use improvements and practices which promote healthy drainages and watersheds.
13. Federal agencies should implement already established state and county best management practices in coordination with Converse County and other local governments to mitigate water pollution caused by heavy erosion and sedimentation from public lands under their management.
14. Federal agencies should implement policies and management decisions to encourage and allow consumptive water right owners to improve water quality and water-use efficiency to provide additional water for economic development and agriculture.
15. Federal agencies should ensure that land use inventory, planning, or management activities affecting point or nonpoint sources and water quality in Converse County, either directly or indirectly, are coordinated with Converse County.
16. Federal agencies should recognize the economic and social benefits of customary land use activities in Converse County and balance against the social and economic value of the sources of pollution.
17. Converse County supports water quality testing and monitoring programs that collect Credible Data according to Wyo. Stat. § 35-11-302 using a local steering committee according to the Watershed Strategic Plan.
18. All management plans and land use practice modifications proposed by management agencies premised on water quality and quantity issues shall be coordinated through local





government and shall be consistent with the protection and preservation of private property rights.

19. Watersheds must be managed for water quality and quantity. Any proposal to modify water quantity and quality in a watershed affecting Converse County must be submitted to the County, in writing, in a timely manner. Socio-economic impacts shall be stated, and the County shall be given the opportunity to comment. Adverse impacts should be mitigated.
20. Federal agencies should coordinate with Converse County regarding point source and nonpoint source definition.

## 5.6 FLOOD PLAINS

### 5.6.1 History, Custom, and Culture

Flood and floodplain management are important to the safety, economy, and ecological health of Converse County. Flooding is a significant natural hazard within the state of Wyoming and can cause significant damage. From 1905 to present there have been approximately \$126.7 million in damages across the state from flood damage (University of Wyoming, n.d.). Between 1960 and 2015 Converse County experienced 1 flood event which incurred \$167 in crop damage and \$458,072 in property damage. Converse County is categorized as 'Medium Risk' for flooding in the Wyoming State Mitigation Plan (Wyoming Office of Homeland Security, n.d.).

### 5.6.2 Resource Assessment and Legal Framework

#### *Federal Emergency Management Agency's (FEMA)*

At the time this document was written Converse County and the municipalities of Douglas and Glenrock, were participating in the National Flood Insurance Program (NFIP) (FEMA, 2020). Communities that participate in NFIP and implement the floodplain management regulations, are eligible for the FEMA Community Assistance Program – State Support Services (CAP-SSE) (FEMA, n.d.-a)). The CAP-SSE provides support and funding for strategic planning, ordinance assistance, technical assistance, mapping coordination, state program and agency coordination assistance, and general outreach and training (FEMA, n.d.-a). Where CAP-SSE provides general preparedness funding, planning, and management, the Risk Mapping and Assessment Planning (Risk MAP) projects develop high quality maps and data to assess the factors contributing to increased risk of flooding in an area, and then develops plans to reduce risk (FEMA, n.d.-d). There are currently no active Risk MAP projects within Converse County (FEMA, n.d.-c). For more information on flood hazard mapping within Converse County refer to FEMA's National Flood Hazard Layer (NFHL) viewer, accessible [here](#)<sup>25</sup> (FEMA, n.d.-b).

The Executive Order 11988-Floodplain management, signed in 1977, was implemented to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. Further information on this Executive Order can be found [here](#)<sup>26</sup>.





### 5.6.3 Flood Plains Resource Management Objectives:

- A. Flood plain areas are managed to ensure the health, safety, and welfare of all residents within Converse County.
- B. Emergency response regarding flooding is coordinated with the Converse County Emergency Response Coordinator.

### 5.6.4 Flood Plains Priority Statements:

1. Federal agencies should support projects and encourage policies which manage storm water, run-off, and flooding on public lands within Converse County.
2. Converse County shall be consulted regarding the development of federal flood plains.
3. Oil and gas facilities should be developed outside of the flood plains in Converse County.
4. Federal agencies should consult and coordinate with Converse County when designating federal flood plains.

## 5.7 RIVERS AND STREAMS

### 5.7.1 History, Custom, and Culture

Rivers and streams are important surface water resources for Converse County. The County's surface water quality and health are integral to multiple industries, including livestock and crop production, recreation, and tourism. Rivers and streams also provide water for municipal use that is important to the health and standard of living for County residents. In addition to these listed uses, healthy rivers and streams are necessary for functioning ecosystems and fishery and wildlife health. (HKM Engineering Inc. et al., 2002)

The two major towns in Converse County, Douglas and Glenrock, depend on the North Platte River and its tributaries to provide water supply, educational opportunities through schools and the Converse County Conservation District, and recreational events which attract tourist dollars to the area. In addition, many local water rights are appropriated out of the North Platte River to supply irrigation water for agriculture.

#### *Interstate Water Compacts*

An interstate water compact is an agreement between two or more states that is approved by those states' legislators and by the U.S. Congress. An interstate compact that receives the approval of Congress counts as federal law (*Kansas v. Nebraska*, 574 U.S. 445, 455 (2015)).

### 5.7.2 Resource Assessment and Legal Framework

There are two major river networks that span the majority of Converse County: the Cheyenne River and the North Platte River.

#### *Cheyenne River*

The Cheyenne River headwaters are located in northern Converse County. In the northeastern corner of the County, Antelope Creek and Dry Fork Cheyenne River merge into the Cheyenne River before entering South Dakota. From there the river continues northeast to the Missouri



River at Lake Oahe. The Cheyenne River headwaters throughout northern Converse County are an important resource for communities in the County. (HKM Engineering Inc., 2002a)

### ***North Platte River***

The North Platte River flows across the southern half of Converse County from west to east. This river flows southeast out of Wyoming and into Nebraska where it forms the Platte River with the South Platte fork. Within Converse County the North Platte River is fed by Muddy, Deer, Box Elder, La Prele, and La Bonte Creeks from the south from the Laramie Range Mountains. This water network is very important to communities and the agriculture industry across southern Converse County. (WWDC, 2006)

### ***Platte River Recovery Implementation Program***

In 1997, Colorado, Wyoming, Nebraska, and the Department of the Interior formed a unique partnership with the goal of developing a shared approach to managing the Platte River. The Platte River Recovery Program formed out of this in 2007 and is focused on implementing this shared vision for creating and maintaining habitats on the Platte. The Platte River Recovery program is managed by a governance committee comprised of representative from Colorado, Nebraska, and Wyoming, water users, environmental groups, BOR, and USFWS. The Platte River Recovery Implementation Program utilizes federal, and state provided financial resources, water and scientific monitoring, and research to support and protect four threatened and endangered species (Piping plover, Least tern, Whooping crane, and Pallid sturgeon) that inhabit areas of the Central and Lower Platte rivers in Nebraska while allowing for continued water and hydropower project operations in the Platte River basin. In December 2019, the U.S. Secretary of the Interior signed an amendment to the Platte River Recovery Implementation Program Cooperative Agreement, along with the governors of Colorado, Nebraska, and Wyoming committing resources to extend the program through December 31, 2032. (Department of the Interior, 2019; Platte River Recovery Implementation Program, n.d.)

### **5.7.3 Rivers and Streams Resource Management Objective:**

- A. Rivers and streams within Converse County are managed to maintain water quality and to maintain proper ecologic function needs and managed for municipal use to control flooding and for recreational and industrial use including irrigation.

### **5.7.4 Rivers and Streams Priority Statements:**

1. Federal agencies should support management of rivers and streams to meet water compact requirements.
2. Any new or changed management priorities or policies regarding in-stream flows should be coordinated with Converse County.
3. Federal agencies should ensure any recovery plan, habitat management plan, critical habitat designation or any other plan proposing an “in stream flow” requirement adequately considers local existing and anticipated future water uses, local custom and culture, local economic and individual needs and is consistent with Wyoming water laws.
4. Federal agencies should support continued use of rivers and streams by all users.



5. Converse County shall be consulted when impacts to rivers and streams are a potential outcome of a federal action or decision.
6. Federal agencies should support projects and policies which improve or maintain the current ecological function of rivers and streams within Converse County for agriculture, recreation, and municipal use.
7. Any new interstate water diversions, transfers, or obligations outside of those originally agreed to are not supported by Converse County.
8. Federal agencies should support the recreational and consumptive use of water to support the local economy.
9. Converse County requests coordination or involvement as a cooperating agency in any proposed amendments or discussions regarding river compacts.

## 5.8 WETLANDS AND RIPARIAN AREAS

### 5.8.1 History, Custom, and Culture

Riparian and wetland areas only make up 4% of the state, however they support over 80% of Wyoming's wildlife (Bureau of Land Management, 2016b). These areas are very important to the health and quality of watersheds and their ecological function. Riparian areas are characterized by vegetation that is adapted to the wetter environments along bodies of water. These areas provide a buffer between open water and upland sites, protecting stream banks from erosion, maintaining stream channel morphology and water table access, filtering runoff sediment and nutrients, and improving stream habitat through lowering stream temperatures and increasing oxygen levels. Wetland areas filter sediment and nutrients that improve water quality and play an important role in maintaining habitat. Riparian and wetland areas play large roles in a streams ability to release energy from floods onto surrounding floodplain areas, greatly reducing flood damage downstream. (WDEQ, n.d.-f)

### 5.8.2 Resource Assessment and Legal Framework

Riparian and wetland areas are an integral part of the health and resilience of water resources within Converse County.

There are multiple anthropogenic processes that can harm riparian and wetland areas. A few examples of activities that can degrade these ecosystems and their ability to function properly are urban and road development along streams and on floodplains, diversion of water, improper timber harvest, and improper grazing practices (WDEQ, n.d.-f; WGFD, n.d.-c). There are also multiple processes that if done correctly can have a positive impact on wetlands. Livestock grazing managed properly and in the right time of year can provide benefits to wetland areas by thinning vegetation to allow new growth and could be used as a weed treatment option (Clary et al., 1989; NRCS et al., 2006).

The Executive Order 11990 – Protection of Wetlands of 1977 was implemented to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. Further information on the Executive Order can be found [here](#)<sup>27</sup>.



The Association of State Wetland Managers maintain resources regarding voluntary wetland restoration work, wetland programs, and law and policy. Federally, wetlands are protected under the Clean Water Act (CWA). The definition of wetlands protected under CWA have been specified further through the supreme court rulings in 1985 *Riverside Bayview*, 2003 *SWANCC*, and 2008 *Rapanos*. (ASWM, n.d.-a, n.d.-b) The EPA and USACE published CWA regulations in 2020 which established that only those wetlands adjacent to non-wetland jurisdictional waters fall under the CWA. 40 C.F.R. § 120.2.

The U.S. Army Corps of Engineers (ACOE) is also responsible for protecting aquatic resources and navigable capacity while allowing economic development through fair and balanced decisions. The ACOE requires a permit process to minimize the environmental impact of construction and development activities in Waters of the United States to ensure protection of these resources. (ACOE, n.d.)

### **Monitoring and Management**

Federal managing agencies monitor riparian-wetland areas using methods such as PFC, Winward Greenline, Rosgen Stream Classification, Stream Visual assessment Protocol (SVAP), Rapid Stream-Riparian Assessment (RSRA), PACfish/INfish Biological Opinion Monitoring Program (PIBO), Geomorphic Road Analysis and Inventory Package (GRAIP), and modified Multiple Indicator Monitoring (MIM). All these methods assess the condition and health of riparian and wetland areas and give federal agencies an indication of the change of species composition, streambank alterations, woody species present and available, along with other riparian health considerations.

Managing agencies are required to manage riparian-wetland areas in Proper Functioning Condition (PFC). PFC is the minimum state of resilience needed to withstand moderate flooding and make progress toward a desired condition that supports fish habitat, water quality, and wildlife needs. Riparian and wetland areas may be categorized as properly functioning (PFC), Non-Functioning (NF), Functioning at Risk (FAR) with upward, downward or nonapparent trends within a PFC assessment. Aquatic AIM monitoring is also used for riparian-wetland assessments and management. (Bureau of Land Management, 2016d)

### **5.8.3 Wetland and Riparian Area Resource Management Objectives:**

- A. Wetlands and riparian areas within Converse County are managed to be healthy and function properly while maintaining a balance with other resource uses.
- B. Wetlands issues are based on a cooperative approach that conserves and protects soil and water resources and protects rangeland and agricultural uses within Converse County.

### **5.8.4 Wetland and Riparian Area Priority Statements:**

1. Federal agencies should coordinate any wetland project with Converse County.
2. Federal agencies should support the use of responsible and appropriate grazing and vegetation management tools to maintain and/or improve wetlands and riparian areas.



3. Federal agencies should manage riparian areas damaged by non-native species (i.e., salt cedar and Russian olives) to decrease the impact of these species on the watershed, and to restore the areas to a proper functioning condition.
4. Federal agencies should use credible data for wetland designation.
5. Converse County does not support any Clean Water Act jurisdictional wetland designations for any wetlands not located immediately adjacent to a navigable water in the County.
6. Converse County should be notified of any planned Clean Water Act jurisdictional wetland designations within the County.
7. Converse County does not support treating manmade wetlands the same as natural wetlands and supports the definition from the 2020 Clean Water Act Regulations.
8. Federal agencies should ensure that regulation of wetlands does not impair private property rights.



## CHAPTER 6: WILDLIFE AND FISHERIES RESOURCES

### 6.1 WILDLIFE MANAGEMENT AGENCIES

#### 6.1.1 U.S. Fish and Wildlife Service

The U.S. Fish & Wildlife Service (USFWS) is the agency within the Department of the Interior dedicated to the management of fish, wildlife, and their habitats, and charged with enforcing federal wildlife laws, including the Endangered Species Act (ESA). In addition to managing threatened and endangered species, they manage migratory birds, restore significant fisheries, conserve and restore wildlife habitat including wetlands, and distribute money to state fish and wildlife agencies. They also manage the National Wildlife Refuge (NWR) System created by President Theodore Roosevelt in 1903. (Wilson, 2014)

There are eight administrative regions for USFWS and approximately 700 field offices across the country. Wyoming is in the Mountain Prairie Region which consists of eight states - Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. The regional office for the Mountain Prairie Region is in Denver, CO. The closest field office to Converse County is in Cheyenne, WY. There are seven National Wildlife Refuges totaling 86,681 acres in Wyoming, as of the 2018 Annual Lands Report (USFWS, 2018a). There are no Wildlife Refuges, Wetland Management Districts, or Waterfowl Production Areas in the County. (USFWS, 2018a).

#### *Wildlife Refuges in Converse County*

In 1903, President Theodore Roosevelt designated the first National Wildlife Refuge by Executive Order. It was not until 1966 that the refuges were put into the NWR and administered by the USFWS. The USFWS administers 89.1 million acres of federal land in the U.S., of which 76.6 million are in Alaska (*Federal Land Ownership*, 2018). The mission of the National Wildlife Refuges is to administer these designated lands for the conservation, management, and if appropriate, restoration of fish, wildlife, and plant resources, and their habitats within the U.S. for the benefit of present and future generations. A number of activities take place on Refuges including hunting, fishing, ice fishing, bird-watching, hiking, bicycling, and water recreation (USFWS, 2018c).

There are seven National Wildlife Refuges in Wyoming (USFWS, n.d.-a), however none are found within Converse County.

#### 6.1.2 Wyoming Game and Fish Department

Wildlife in Wyoming are managed by the Wyoming Game and Fish Department (WGFD). The legislature created the office of the State Game Warden in 1899. The Wyoming Game and Fish Commission was created in 1921 but did not receive the ability to actively manage Wyoming's game populations until 1929. The WGFD was created in 1973. Prior to this time, all Game and Fish personnel were employed by the Wyoming Game and Fish Commission. (WGFD, n.d.-a)

The Wyoming Game and Fish Commission acts as the policy making board of the WGFD. The Commission is responsible for the direction and supervision of the Director of the WGFD. Through the relationships with the Director, WGFD employees, and citizens, the board provides a flexible system of control, propagation, management, protection, and regulation of all wildlife in



Wyoming. WGFDs commission is a board of seven citizens where not more than five can be from the same political party. (WGFD, n.d.-b) The WGFDs mission is ‘Conserving Wildlife, Serving People’.

The WGFD utilizes a [State Wildlife Action Plan](#)<sup>28</sup> (SWAP), revised in 2017, to provide a strategy for managing various wildlife groups including mammals, birds, reptiles, amphibians, fish, and mussels. This plan is not a legal document, a regulatory document, a recovery plan under the ESA, or a NEPA decision document (WGFD, 2017b). It is designed to complement existing and future planning and management programs. Wyoming’s SWAP was partially funded by the State Wildlife Grants Program, which was created through federal legislation to provide federal funding to states to create a list of wildlife species that have the greatest conservation need. The state plan is built upon eight essential elements, identified by Congress, and implemented by the state game agency, with an overall focus on “species of greatest conservation need”. The essential elements are:

- Information on the distribution and abundance of species of wildlife including low and declining populations.
- Descriptions of locations and relative condition of key habitats and community types.
- Problems affecting species and priority research, or survey efforts needed.
- Conservation actions needed to conserve the identified species.
- Plans for monitoring species and the effectiveness of conservation actions.
- Plans for reviewing the strategy.
- Coordinating with federal, state, and local agencies and Tribal government on the development and implementation of the strategy; and
- Involving broad public participation.

The species list includes 229 total species including eighty birds, nine amphibians, twenty-four reptiles, fifty-one mammals, twenty-eight fish, eight crustaceans, and twenty-nine mollusks, each with a specific priority designation based on the essential elements listed above. (WGFD, 2017b)

Wyoming’s List of Species of Greatest Conservation Need is divided into three tiers: Tier 1 – highest priority, Tier 2 – moderate priority, and Tier 3 – lowest priority. The Wyoming Game and Fish Commission has six approved variables to evaluate the conservation priority of each species. These variables include: the Wyoming Game and Fish Department Native Species Status (NSS); Wyoming’s contribution to the species’ overall conservation; regulatory/monetary impacts of the species’ listing under the Endangered Species Act; urgency of conservation action; ability to implement effective conservation actions; and the species’ ecological or management role as keystone, indicator, or umbrella species. The consideration of these variables in the species’ priority tier designations are made by WGFD biologists who have considerable knowledge about the species. Individual designations may be reviewed annually if warranted by changing circumstances or new data. State Wildlife Grant Program funds are appropriated annually by congress. In the appropriation process, individual states are evaluated based on their population and total geographical area. From these evaluations, states receive their apportioned funding





amounts. Federal grants cover up to 75% of planning grants and 65% of plan implementation grants. (USFWS, n.d.-c; WGFD, 2017b)

The WGFD updates the species on the Conservation Priority List in conjunction with the State Wildlife Action Plan. The Wyoming Species of Conservation Priority List can also be found on the WGFD [website](#)<sup>29</sup> (WGFD, 2017a).

### **Wildlife Habitat Management Areas**

The WGFD maintains approximately 450,000 acres of land under deed, lease, or by agreement for wildlife habitat management areas (WHMA). There are no WHMAs within Converse County. (WGFD, 2020d)

## **6.2 WILDLIFE HABITAT MANAGEMENT AGENCIES**

### **6.2.1 Bureau of Land Management**

The BLM’s Wildlife Program manages wildlife habitat to help ensure self-sustaining, abundant, and diverse populations of native and desired non-native wildlife on public lands and federal mineral estate. To carry this out, the BLM must formally identify priority species; BLM-sensitive species; and other species. BLM then considers applicable conservation measures for these species and their habitats as part of their land-use planning process.

### **6.2.2 U.S. Forest Service**

Regulations in 36 C.F.R. § 219.19 and § 219.20 call for the selection, evaluation, and monitoring of management indicator species and their habitat. Management indicator species may be “plant or animal species and are selected because their population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality” (US Forest Service, 1982). These regulations do not imply that the population dynamics of management indicator species directly represent the population dynamics of other species. Criteria that direct management indicator species consideration include:

- Species is indigenous.
- Species is a year-long resident of the vicinity (non-migratory), or population trends of the species in the local or regional vicinity are closely tied to habitat conditions resulting from land uses on National Forest System (NFS) lands in the same area.
- Species is considered a keystone species or habitat specialist.
- Species is sensitive to management activities on NFS lands in the local or regional vicinity.
- Population trends of the species are assumed to be related to changes in habitat composition, structure, ecological processes, and/or human activities.
- Species is appropriate for the scale that best represents the key issues or management concerns.
- Biologically and economically feasible to monitor populations and habitat of the species at similar spatial scales.
- Populations are of sufficient size or density to be reasonably detected and monitored. Accepted survey protocols exist. Analysis and interpretation of inventory data should



produce meaningful and reliable trend information. Species that require high investment for low returns or suspect results should be avoided.

- Species where the scientific literature supports the assumed limiting factors and habitat associations. (USDA Forest Service, 2001)

### ***Thunder Basin National Grassland***

In December of 2020, the Medicine Bow-Routt National Forests and Thunder Basin National Grassland completed an amendment to the Thunder Basin National Grassland Land and Resource Management Plan that focused on prairie dog management. The intent behind the amendment is to provide a wider array of management options to respond to changing conditions on the grassland, minimize prairie dog encroachment onto non-Federal lands, reduce resource conflicts related to prairie dog occupancy and livestock grazing, ensure continued conservation of at-risk species, and support ecological conditions that do not preclude reintroduction of the black-footed ferret. (USFS, n.d.-c)

## **6.3 WILDLIFE**

### **6.3.1 History, Custom, and Culture**

Converse County is nationally recognized for several hunting activities, including the Helluva Hunt for handicapped shooters and the One-Shot Bow Hunt. Numerous other outdoor enthusiasts are attracted to Converse County's hunting and wildlife viewing opportunities. The County is known for its big game hunting and provides good hunting for County citizens, Wyoming residents, and out of state visitors alike.

Hunting big game (including elk, deer, antelope, mountain lion, and black bear), small game animals, predators, waterfowl, upland game birds, and trapping of fur bearing animals has been a traditional part of local history and culture, predating formation of the State. In early days, hunting and trapping of fur-bearing animals was necessary for survival. Today it is still essential for herd population control and continues to provide food and supplemental income for many people living and working in Converse County. Income for County residents is provided by activities such as employment for outfitters and guides, selling supplies and equipment, and providing lodging, meals, and other goods and services to hunters, trappers, and fisherman.

In some areas, there are high levels of anthropogenic disturbance such as intensive oil/gas/wind development that can displace wildlife and cause them to congregate in other areas. Large numbers of wildlife can also occupy private lands and cause concern to those private lands owners for forage competition with livestock. This most often is due to a function of over objective populations (most common elk numbers) due to a lack of hunting access.

### **6.3.2 Resource Assessment and Legal Framework**

#### ***Big Game***

Converse County has a diversity of habitat that hosts several large wildlife species that are important to the recreational industry of the region. Virtually all the county is habitat of some importance.



### Elk

Elk (*Cervus canadensis*) are found throughout most of the County in relatively low densities. The largest population of elk is located in southern Converse County along the northern Laramie Range. Elk are primarily grazers, or bulk foragers, though they will occasionally browse on willows and aspen. Most of the elk habitat within the County, 209,785 acres, is listed as spring/summer/fall habitat. Approximately 44,875 acres of the County are designated as crucial winter habitat, and 200,878 acres are designated as winter yearlong habitat. See Figure 15 for mapped habitat designations.

### Mule Deer

Mule deer (*Odocoileus hemionus*) are found throughout all of Converse County. Mule deer have readily adapted to the urban environment and have begun to encroach into developing areas within the County. Mule deer are considered primarily browsers but will use forbs as well. Mule deer will consume grass early in the season while the nutritive value is high, but senescent grasses do not meet their dietary requirements. A large portion of the County is designated as yearlong habitat; 1,436,099 acres. There are also large acreages of winter yearlong (682,851 acres) and spring/ summer/ fall (336,157 acres) habitat designated throughout, with a section of crucial winter range along the southern portion of the County. See Figure 16 for mapped habitat designations.

### Pronghorn

Pronghorn (*Antilocapra americana*) are common throughout Converse County. Pronghorn prefer the open shrublands that the southern portion of the county provides. They are intermediate foragers, eating grasses, forbs, and shrubs. Most of the habitat is identified as yearlong (1,415,219 acres) with sections of winter and crucial winter habitats designated in southern Converse County as well. See Figure 17 for mapped habitat designations.

### White-tailed deer

White-tailed deer (*Odocoileus virginianus*) prefer riparian habitats often associated with irrigated lands. Approximately 141,074 acres of the County provides yearlong habitat. There are also smaller inclusion of spring/ summer /fall and winter habitat in the County. Whitetails, like mule deer, are browsers, supplementing their diet with forbs and occasionally grass. In agricultural areas they will feed more on field and hay crops. There is some habitat overlap with mule deer. See Figure 18 for mapped habitat designations.

### ***State of Wyoming Migration Corridor Protections***

In February 2020 Wyoming released the Wyoming Mule Deer and Antelope Migration Corridor Protection Executive Order 2020-1, outlining the State's strategy for managing migration corridors and habitats. The order designated three separate mule deer corridors and a process by which to designate additional corridors in the future. The executive order addresses surface disturbance, state-permitting, and recreation activities within designated mule deer and antelope migration corridors, as well as the cooperation between WYDOT and WGFD (and other related state agencies) to minimize roadway collisions and facilitate big game movement across roadways. (State of Wyoming, 2020)



Executive Order 2020-1 promotes Counties to revise or update land use plans to be consistent with the state designated migration corridor protections. There are currently no migration corridors designated within Converse County. (WGFD, 2020b)

## ***Wildlife Diseases***

### ***Chronic Wasting Disease (CWD)***

Chronic Wasting Disease (CWD) has been a concern for wild ungulate populations in Converse County since the early 2000s. A 2016 CWD study in east-central Wyoming discovered that between 2003 and 2010, 32-43% of all harvested deer were positive for CWD. The study also found that from 2003-2010 the whitetail deer populations declined 10% annually as a result of CWD related mortality, potentially leading to the significant loss of local populations within 50 years. The WGFD statewide 2020 CWD Management Plan outlines surveillance, monitoring, and management strategies at the local or herd unit level to better manage the prevalence of CWD in conjunction with current herd and population objectives in each herd unit. (Edmunds et al., 2016; WGFD, 2020e)

For additional information on the monitoring and management of CWD in Wyoming refer to the [CWD Management Plan](#)<sup>30</sup>.

### ***Black-tailed Prairie Dog***

There is a natural conflict between state and federal management of the black-tailed prairie dogs in Converse County. The State of Wyoming consider black-tailed prairie dogs a pest, however, both the BLM and USFS consider conservation of prairie dogs in certain areas a priority.

Each prairie dog can consume up to two pounds of forage per month, reducing the forage available to other wildlife and livestock. Prairie dogs are carriers of sylvatic plague, an infectious disease caused by the bacterium that causes bubonic and pneumonic plague in humans. Under favorable conditions, prairie dog towns can become dense and naturally expand into areas that directly compete with agriculture, and their burrowing can be disruptive to irrigation and dangerous to livestock. Prairie dogs were initially identified as a nuisance rodent in Wyoming by the 1886 Territorial Legislature. In 1973 the Wyoming legislature identified the prairie dog as a designated pest under the current weed and pest law. The designation allows the county Weed and Pest Control Districts to work with local landowners in developing management programs that include cost-share agreements. (Wyoming Weed and Pest Council, 2019)

Conversely, the USFS classifies the black-tailed prairie dog as a sensitive species in the Forest Service, Rocky Mountain Region and as a management indicator species on the Thunder Basin National Grassland. Thus, the USFS has had a history of conserving prairie dog habitat.

Prairie dogs present a number of ecological, economic, and multiple use management issues. That need to be considered whenever making management decisions affecting the species.

Prairie dogs particularly affect agriculture. Perhaps the greatest harm that the prairie dog infestation has caused local agricultural operations is the destruction of local grassland vegetation. Prairie dogs change a naturally occurring mixed-grass prairie ecosystem into a short grass prairie ecosystem. In an arid region



such as the Thunder Basin, it may prove to be very difficult to raise livestock. Annual precipitation in the area as a whole is 10-14 inches. See Thunder Basin National Grassland Land and Resource Management Plan (2001) at 2-2. The difficulties are magnified when the forage that these operations have relied upon for over one hundred years suddenly becomes scarce.

An AUM is the amount of forage that one cow and calf ingest per month during the summer. In the Thunder Basin, a cow and calf consume 780 pounds of forage per month. Denise Langley, presentation before Wyoming Legislature Joint Agriculture, State and Public Lands and Water Resources Interim Committee (Sept. 14, 2015). It has been calculated that a total of 5.2 acres of prairie dog colonies is equivalent to one AUM. Using the information from the partial land survey referenced above, the total AUMs lost in that portion of the Thunder Basin due to the prairie dog infestation is 14,589 AUMs. The loss of AUMs due to prairie dog infestations has already damaged landowners in the region. Several landowners in the region have drastically reduced their livestock herd because of the loss of forage. (Budd-Falen, 2021)

When determining the value an AUM means to a rancher, one cannot look purely at the AUMs lost, but also must look at how those lost AUMs will affect the ranching operation as a whole and take away from other areas. When considering the change in total ranch production resulting from the change in federal grazing, which ultimately affects the optimal use of the rest of the forage resources, one AUM is worth \$98.91 annually. (David T. Taylor, *Economic Importance of Federal Livestock Grazing in Converse County* 2-3 (May 2011) citing David T. Taylor, *et al*, *The Economic Impact of Federal Grazing on the Economy of Park County, Wyoming* 17-18 (August 2005)). Thus, the total lost value for ranchers in that specific portion of the Basin was \$1,442,997.99 in 2016-2017 alone.

The cost of prairie dog expansion in the Thunder Basin National Grassland is not limited to the loss of AUMs in the region. There is also a continual and unsustainable cost to control prairie dog populations on private and state lands due to the loss of topsoil from bare ground by water and soil erosion prairie dog encroachment from neighboring federal lands.

One of the leading methods to control prairie dog expansion is through rodenticide. However, the cost for rodenticide treatment is significant when put in the context of annual costs. The Converse County Weed and Pest Department in Wyoming compiled information from twelve landowners with property adjacent to federally managed lands in the TBNG since 2011. In total, over a 7-year timespan, 907,835 prairie dog holes were treated. Letter from Cheryl Schwarzkopf, Supervisor of Converse County Weed and Pest District to Denise Langley (July 14, 2018).

Converse County Weed and Pest has an 80/20 cost share program for the treatment of animals that are a State of Wyoming designated pest. Prairie dogs are included on this list. These products used by the 12 landowners, have cost the landowners \$36,717.31 and the remaining \$92,502.37 has been an economic burden to the Converse County taxpayers.

Prairie dog burrows also damage local infrastructure and can cause hazards to both humans and livestock relying on those improvements. Prairie dogs sometimes burrow around fence posts causing damage to fence lines. Burrows have also expanded to dirt roads, causing potholes for vehicle traffic. Other



infrastructure damage is caused to earthen dams and reservoirs for water storage, irrigation projects, and wells, by the prairie dogs burrowing into and around these structures.

A black-tail prairie dog colony can create up to 50 burrow entrances per acre. Most burrow entrances lead to a tunnel that is 3 to 6 feet deep and about 15 feet long. Prairie dogs construct crater- and dome-shaped mounds up to 2 feet high and 10 feet in diameter. Due to the large number of burrows per acre and the size of the holes, there have been numerous reports of livestock stepping into a hole and breaking limbs. Saddle horses have been known to step in prairie dog hole and the result is that they can break a leg and possibly throw a rider.

Finally, prairie dogs can impact other sensitive species in the area including the greater sage grouse and mountain plover through habitat destruction and alteration caused by prairie dog expansion. The boom-and-bust cycles that occur when prairie dogs are unmanaged can impact mountain plover populations, as mountain plover habitat is affected by both extremely high prairie dog populations and extremely low populations (TBGPEA, 2020).

One of the main reasons that the Greater sage grouse was considered for listing by the U.S. Fish and Wildlife Service was because of habitat destruction and fragmentation to greater sage grouse habitat areas (79 Fed. Reg. 72464 (proposed December 5, 2014)). The expansion of prairie dog colonies in the Thunder Basin National Grassland can negatively impact sage grouse in the area. Greater sage grouse rely primarily on a sage-steppe ecosystem with high amounts of sage brush in the area and a higher grass height to provide Greater sage grouse with nesting cover to increase the likelihood of successful nests (Fish and Wildlife Service, Greater Sage Grouse Record of Decision for Northwest Colorado and Wyoming 30 (September, 2015)). Prairie dog colonization expansion can impact sage-steppe ecosystems by decreasing sagebrush. Recent studies in the Thunder Basin have shown that maximum vegetation height was reduced by at least 54% on sites colonized by prairie dogs, shrub density was reduced by 71%, and shrub canopy was reduced by 90% (Connell et al., 2018). Further, the percentage of bare ground typically increases with long-term prairie dog occupancy because prairie dogs specifically trim forage to a very low stubble in order to scan the area for predators, in direct contradiction to what Greater sage grouse need, which is cover to hide their nests and their young from predators. Removal of sagebrush tends to create a more xeric site, making it extremely difficult for sagebrush to reestablish. Thus, sage grouse habitat and prairie dog habitat are in direct conflict with each other. The Forest Service submitted a request to the Sage Grouse Working Group to remove 6,904 acres from the proposed greater sage-grouse core habitat area because there was no longer suitable habitat in the area due to prairie dog activity and fire (both natural and prescribed) (see Core Area Boundary Revisions – Northeast LWG Mtg (March 16, 2015)).

In December of 2020, the Medicine Bow-Routt National Forests and Thunder Basin National Grassland completed an amendment to the Thunder Basin National Grassland Land and Resource Management Plan that focused on prairie dog management. The intent behind the amendment is to provide a wider array of management options to respond to changing conditions on the grassland, minimize prairie dog encroachment onto non-Federal lands, reduce resource conflicts related to prairie dog occupancy and livestock grazing, ensure continued conservation of at-risk species, and support ecological conditions





that do not preclude reintroduction of the black-footed ferret. Converse County was a cooperating agency for this plan amendment and was highly involved in the development of this plan. (USFS, n.d.-c)

### *Greater Sage-Grouse*

Greater sage-grouse is a state-managed species that is dependent on sagebrush steppe ecosystems. These ecosystems are managed in partnership across the range of the Greater sage-grouse by federal, state, and local authorities. Efforts to conserve the species and its habitat date back to the 1950s. Over the past two decades, state wildlife agencies, federal agencies, and many others in the range of the species have been collaborating to conserve Greater sage-grouse and its habitats. BLM has broad responsibilities to manage federal lands and resources for the public benefit. Nearly half of Greater sage-grouse habitat in Wyoming is managed by the BLM.

In September 2015, the USFWS determined that the Greater sage-grouse did not warrant listing under the Endangered Species Act of 1973 (ESA). In its “not warranted” determination, the USFWS based its decision in part on regulatory certainty from the conservation commitments and management actions in the BLM and USFS Greater sage-grouse land use plan amendments (LUPAs) and revisions, as well as on other private, state, and federal conservation efforts. Since 2015 the BLM, in discussion with partners, recognized that several refinements and policy updates would help strengthen conservation efforts, while providing increased economic opportunity to local communities.

The BLM issued its Record of Decision for the Wyoming Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA) in March 2019 to update Greater sage-grouse management. The 2019 Plan Amendment is currently being litigated in the United States District Court for the District of Idaho and is blocked from implementation under an injunction issued by that court for all western states.

In 2019, the Wyoming Governor’s Office issued Sage-Grouse Executive Order 2019-3. The Executive Order is the State of Wyoming’s primary regulatory mechanism to protect Greater sage-grouse and its habitat. The order outlines procedures that seek to minimize disturbance and incentivize development outside of designated core population areas. The 2019 Executive order can be found [here](#)<sup>31</sup>.

There are approximately 286,845 acres of designated core habitat for sage-grouse within Converse County (Figure 19).





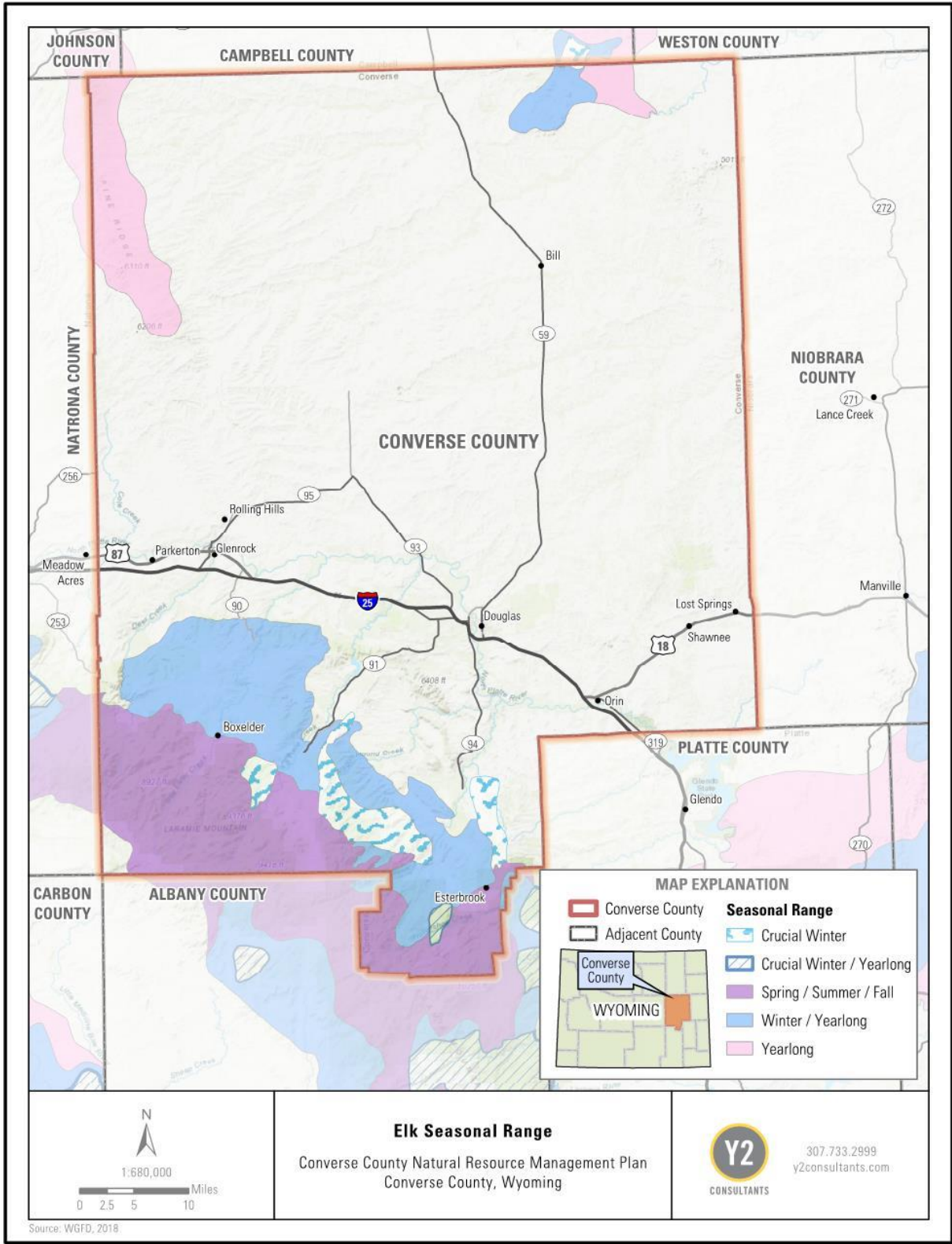


Figure 15. Elk seasonal habitat in Converse County (WGFD, 2018).



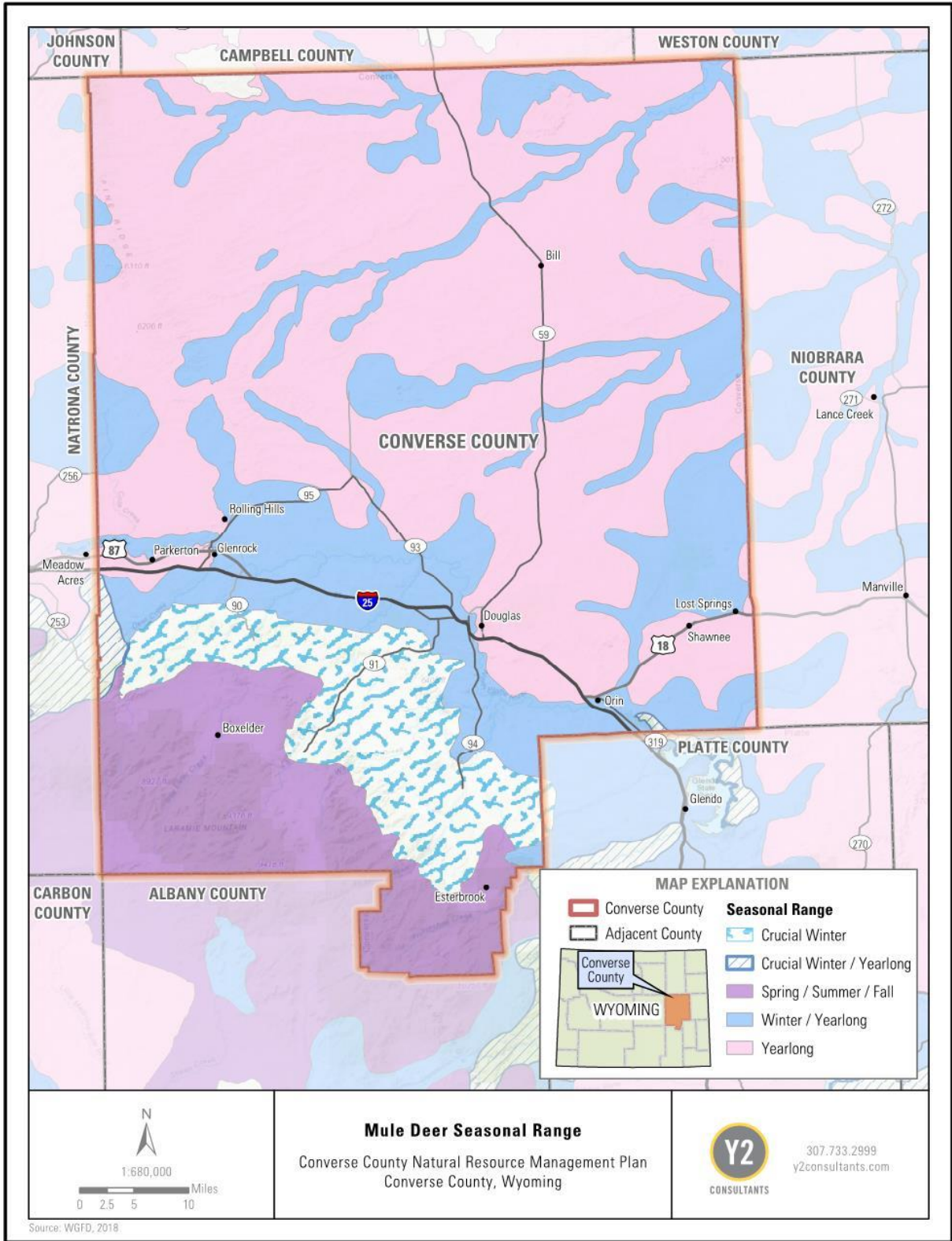


Figure 16. Mule deer seasonal habitat in Converse County (WGFD, 2018).





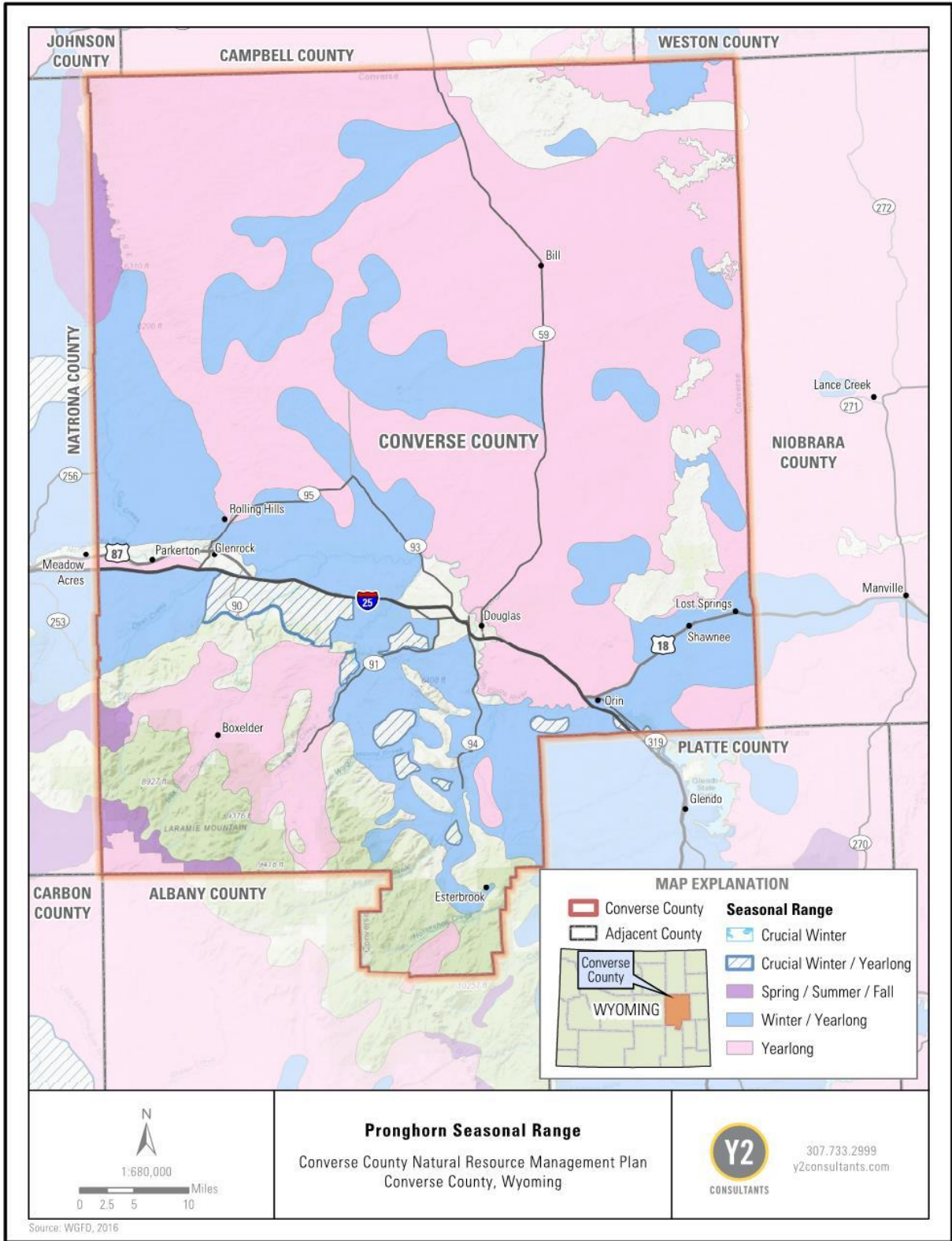


Figure 17. Pronghorn seasonal habitat in Converse County (WGFD, 2016).



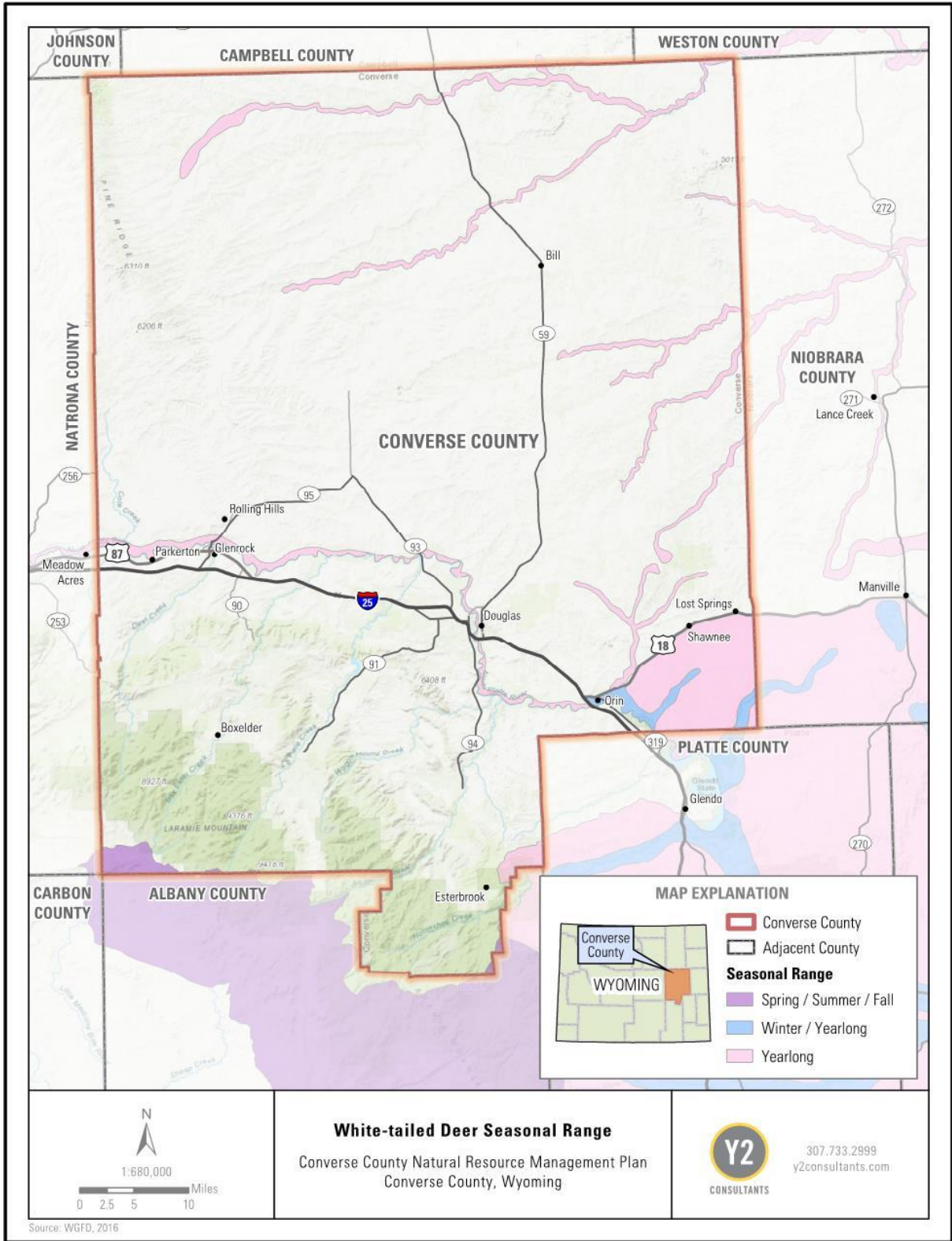


Figure 18. White-tail deer seasonal habitat in Converse County (WGFD, 2016).





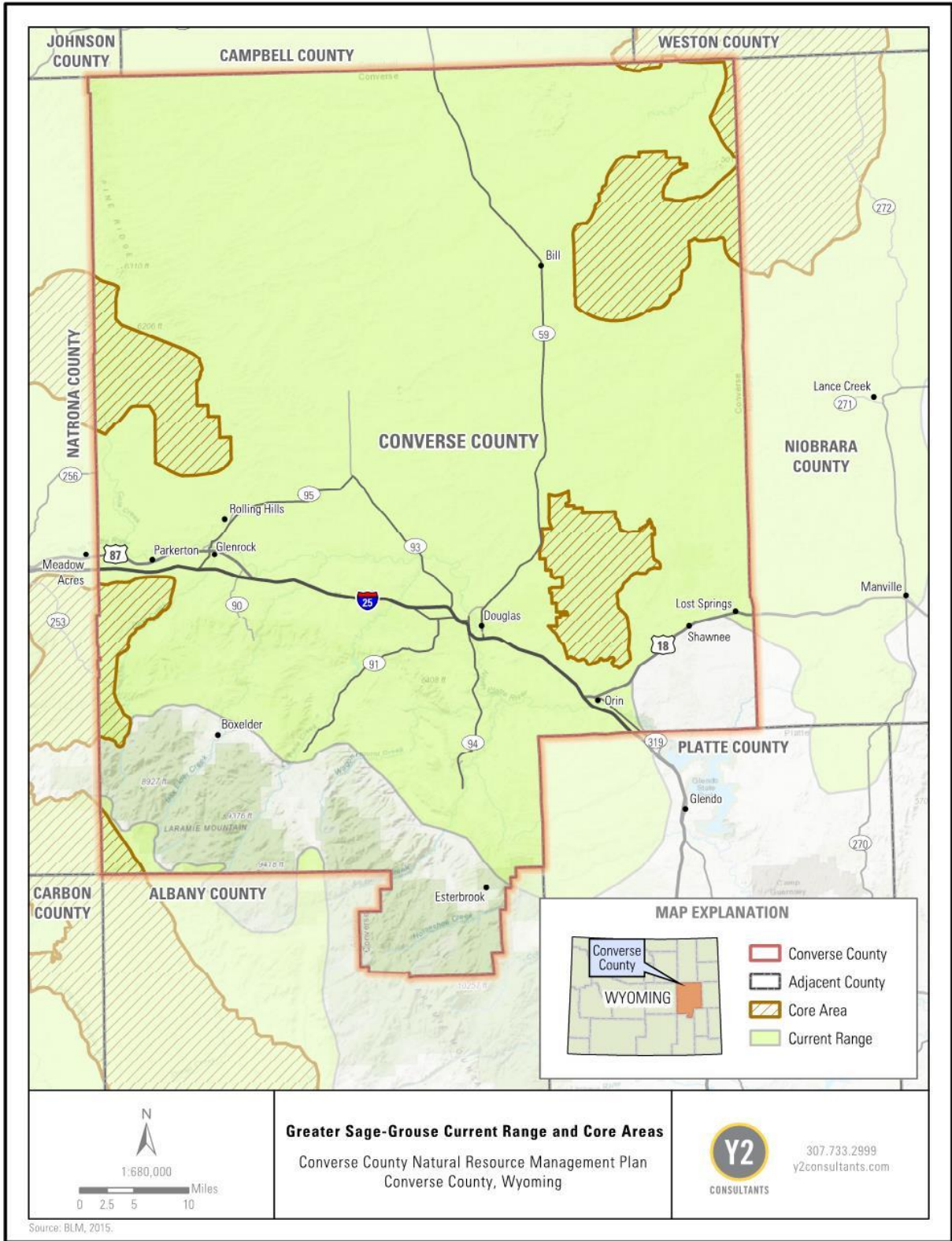


Figure 19. Greater sage-grouse mapped core area within Converse County (BLM, 2015).



### **6.3.1 Wildlife Resource Management Objectives:**

- A. Wildlife resources and their habitats are managed for healthy, sustainable, and biodiverse populations and habitats that support recreation, tourism, livestock grazing, and other multiple uses on federal lands within Converse County.
- B. Any plan regarding wildlife within Converse County is developed in coordination with Converse County and other appropriate stakeholders.

### **6.3.2 Wildlife Priority Statements:**

- 1. Converse County supports the State of Wyoming's primacy over wildlife management.
- 2. Federal agencies should support wildlife management objectives and numbers based on what the range conditions and habitat can support while allowing for livestock grazing.
- 3. Federal agencies should support reasonable and science-based protection and restoration of critical winter range habitat, while respecting private property and considering the economic effects to Converse County.
- 4. Federal agencies should research and provide funding opportunities and compensation to landowners for resource enhancement that benefits wildlife.
- 5. Converse County requests the inclusion of at least one representative from the County Commissioners as a cooperating/coordinating agency for any decision-making or management decision which may affect wildlife resources and economic viability in the County.
- 6. Federal agencies should support mitigation measures when conflicts between wildlife and livestock occur. If range conditions require reductions in grazing, allocations to wildlife and livestock should be reduced proportionately.
- 7. Closures and restrictions in traditional winter range areas for livestock permittees and oil and gas operators are opposed unless otherwise agreed to Converse County.
- 8. Federal agencies should coordinate with Converse County and Wyoming Game and Fish Department to ensure that all affected landowners, lessees, and permittees are consulted when developing specific Wildlife Management Plans or objectives within the County.
- 9. Converse County encourages cooperation between local, regional, state, and federal governments and private landowners in the management of big game and non-game wildlife species.
- 10. Federal agencies should promote wildlife management practices that sustain wildlife resources and habitat without measurably degrading other multiple use activities or private property rights.
- 11. Federal agencies should not release, through introduction or re-introduction, non-domesticated exotic wildlife species without coordination with Converse County.
- 12. Season-of-use conflicts between livestock and wildlife should continue to be addressed by revisiting the wildlife population objectives and in annual allotment operating plans to provide for maximum flexibility to allow permittees to best utilize forage allocations for livestock.
- 13. Federal agencies should coordinate with Converse County to create a unified (cross-agency) definition for "species of concern" and "management indicator species."
- 14. Federal agencies should use credible data as a basis for a decision that a species shall be designated a "species of concern" or "sensitive."



15. The management of non-ESA listed species (e.g., species of concern, species of special concern, or any other non-ESA designation) as though they are protected by the rules of the ESA is not supported by Converse County.
16. Converse County supports the State of Wyoming’s Sage-Grouse Conservation Strategy.
17. Federal agencies should provide timely responses when requested by Converse County for resource concerns, management plans, and other sensitive, candidate or listed species.
18. Converse County should be consulted and coordinated with in the continued management of greater sage-grouse, and any other species for which a single-species management plan is developed.
19. Converse County should be consulted and coordinated with in the establishment of recovery objectives for species of concern and the development of management actions to delist species of concern.
20. Converse County supports research and management of mule deer, white-tailed deer, and elk for reduction of chronic wasting disease, vehicle collisions, and migration corridors.
21. Federal agencies should recognize and support the State of Wyoming designation of black-tailed prairie dogs as being classified as an agricultural pest [Wyoming Statute 11-5-102(a)(xii) and should employ the appropriate management prescriptions to be consistent with this designation.
22. Migration corridors as subject to Executive Order 2020-1 are not supported in Converse County without the express support and/or approval of the County.

## 6.4 THREATENED/ENDANGERED/SENSITIVE SPECIES

### 6.4.1 History, Custom, and Culture

Threatened and endangered species have been a part of Converse County since the early days of the ESA. Species such as the Western prairie fringed orchid and piping plover were first listed as threatened in the late 1980s.

Limited access to federal lands and resources and potential fines or enforcement actions as a result of federal species protection actions and regulations have the potential to cause hardships on county residents. The impacts of the ESA can also potentially cause financial peril to those who rely on resource production from federally managed lands.

### 6.4.2 Resource Assessment and Legal Framework

#### *Endangered Species Act*

Protection of endangered species at the federal level began with the enactment of the Endangered Species Preservation Act, passed by Congress in 1966, which provided limited protection for species listed as endangered. The Departments of the Interior, Agriculture, and Defense were to seek to protect listed species and to the extent possible, preserve the habitats of listed species. In 1969, Congress amended the Act to provide additional protection for species at risk of “worldwide extinction” by prohibiting their import and sale in the United States. This amendment called for an international meeting to discuss conservation of endangered species





and changed the title of the act to the Endangered Species Conservation Act. In 1973, 80 nations met to sign the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Commission of the European Communities, 1986). As a follow-up, Congress passed the Endangered Species Act (ESA) of 1973. The ESA:

- Defined “endangered” and “threatened” species;
- Made plants and all invertebrates eligible for protection;
- Applied “take” prohibitions to all endangered animal species, and allowed the prohibitions to apply to threatened animal species by special regulation; such “take” prohibitions also include “adverse modification” of critical habitat;
- Required federal agencies to use their authorities to conserve listed species and consult on “may affect” actions;
- Prohibited federal agencies from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or adversely modify its “critical habitat”;
- Made matching funds available to States with cooperative agreements;
- Provided funding authority for land acquisition for foreign species; and
- Implemented protection in the United States. (USFWS, 1973)

The ESA was amended in 1978, 1982, and 1988. Funds are annually appropriated for the implementation of the ESA and have been since 1993.

Candidate species are “any species being considered for listing as an endangered or threatened species, but not yet the subject of a proposed rule” (50 C.F.R. § 424.02(b)).

USFWS is responsible for the identification of critical habitat. Critical habitat is a specific geographic area that contains features essential to the conservation and recovery of a listed species and may require special management or protection. In 2020, the definition of critical habitat was defined by the USFWS, however the changes in administration are likely to change this.

Critical habitat can only effect areas that qualify as “habitat.” *Weyerhaeuser Co. v. US Fish and Wildlife Service*, 139 S. Ct. 361, 368 (2018). The ESA does not define “habitat.” *Id.* However, the USFWS regulations define “habitat,” for the purpose of designating critical habitat only, as “the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a species.” 50 C.F.R. § 424.02. Thus, only those settings that currently contain the resources may be designated as critical habitat, and those settings that would require additional modification could not qualify as habitat. *See Id.*; 85 FR 81411. Thus, under the USFWS’s regulatory definition, “habitat” may only exist under the ESA when a listed species could currently survive within the habitat as of the day of the listing. *Id.* Land not currently occupied by an endangered species can only be designated as critical habitat when the Secretary of the Fish and Wildlife Service determines that the land is “essential for the conservation of the species.” 16 USC 1532(5)(A). “Essential for the conservation of the species” is also not defined in either the ESA or USFWS regulations. Although economic impacts are not considered during the species listing process, the economic impacts of a critical habitat



designation must be analyzed in the designation process. The USFWS may choose to exclude any area from critical habitat if the agency determines that the benefits of such exclusion outweigh the benefits of designating the area, unless such exclusion would result in the extinction of the species. 16 U.S.C § 1533(b)(2). A decision not to exclude critical habitat for economic reasons is reviewable by courts under an abuse of discretion standard. *Weyerhaeuser*, 139 S. Ct. at 370.

In response to the *Weyerhaeuser* Court's decision allowing decisions not to exclude critical habitat to be reviewed under the Administrative Procedure Act, the Fish and Wildlife Service promulgated rules regarding the exclusion of critical habitat (50 C.F.R. § 17.90). There are five major items developed in the proposed rule.

1. The rule gives local governments expert status when discussing the economic and other nonbiological local impacts of critical habitat designation within their jurisdiction.
2. The rule also allows federal land to be excluded from critical habitat designation.
3. The rule sets a meaningful standard as to when critical habitat should be excluded.
4. The rule encourages the USFWS to exclude critical habitat for more than just economic consideration, including whether the critical habitat may harm community development and;
5. The rule allows lands that have proven conservation agreements to be excluded from critical habitat. These agreements can even be agreements created by local governments or the state and not just the USFWS (50 C.F.R. § 17.90).

The ESA created several additional planning tools, including:

- Recovery plans (population and viability goals; define when delisting may be possible; what is required for delisting to begin).
- Reintroduction plans.
- Habitat conservation plans (define when "take" may occur, defines mitigation options).
- Conservation plans or agreements.
- Candidate Conservation Agreements (CCA) and CCAs with Assurances (CCAA) (private landowner arrangements for the protection of Candidate species that provides the landowner with protection if the species is listed) and Species of Concern. (USFWS, 2018b)

### Section 6

Section 6, also known as Cooperation with the States, recognizes the key role that states play in conserving our native wildlife and plants. Section 6 provides funding to States and Territories for species and habitat conservation actions on non-federal lands. Through cooperative agreements, States can receive funding from the USFWS for a variety of conservation actions that contribute toward listed species recovery. Section 6 funds are awarded through four programs 1) Conservation Grants, 2) Habitat Conservation Planning Assistance Grants, 3) Habitat Conservation Plan Land Acquisition Grants, and 4) Recovery Land Acquisition Grants. (USFWS, n.d.-b)



### 10(j) Rule

Section 10(j) of the ESA allows reintroduced experimental populations of endangered species to be managed as if they were only threatened. These reintroduced populations are nonessential and experimental which increases USFWS management flexibility and indicates that the loss of the experimental population will not threaten the continued existence of the species. Most of the added flexibility is applied to circumventing Section 9 of the ESA and its prohibitions against “taking” endangered species. (Cribb, 1998)

### ***Bald and Golden Eagle Protection Act***

The Bald and Golden Eagle Protection Act (BGEPA) (16. U.S. C 668-668c) was enacted in 1940, with several amendments since, and prohibits anyone from “taking” bald or golden eagles, including their parts, nests, or eggs without a permit issued by the Secretary of the Interior. (USFWS, 2018b)

### ***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act (MBTA) is a federal law that carries out the United States’ commitment to four international conventions with Canada, Japan, Mexico, and Russia. Those conventions protect birds that migrate across international borders. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except as authorized under a valid permit (50 CFR 21.11). The USFWS published the ‘Regulations Governing Take of Migratory Birds’ on January 7, 2021, further defining the parameters of ‘unlawful take’. The rule defines ‘take’ as ‘to willfully pursue, hunt, shoot, wound, kill, trap, capture, or collect’. ‘Take’ of migratory birds no longer includes the incidental or accidental killing of migratory birds (USFWS, 2021). The MBTA also authorizes and directs the Secretary of Interior to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take (i.e. hunting seasons for ducks and geese). (USFWS, 2020)

### ***Candidate, Threatened, and Endangered Species in Converse County***

Currently listed threatened and endangered species can be found on the USFWS [Environmental Conservation Online System](#)<sup>32</sup> (ECOS) (U.S. Fish and Wildlife Service, n.d.). At the writing of this report there are four endangered, threatened, candidate, and proposed species and habitats that have been identified for Converse County. Those species are:

- Piping Plover (*Charadrius melodus*)- Threatened
- Preble's meadow jumping mouse (*Zapus hudsonius preblei*)- Threatened
- Ute ladies' tresses (*Spiranthes diluvialis*)- Threatened
- Western prairie fringed Orchid (*Platanthera praeclara*) –Threatened

### ***Sensitive Species***

#### ***BLM Sensitive Species***

Special Status Species are designated by the BLM and include species that are federally listed or proposed for listing as threatened or endangered, candidate species, state protected and sensitive species, and other special- status species including federal and state “species of



concern.” The BLM designates special-status species where there is credible scientific evidence to document a threat to the continued viability of a species population. Moreover, Special Status Species are typically designated as sensitive by a BLM state director in cooperation with state agencies that are responsible for managing the particular species. State natural heritage programs are typically involved as well, where applicable. Species are usually those that fall in the following criteria:

- Could become endangered in or extirpated from a state or within a significant portion of its distribution;
- Are under status review by the USFWS;
- Are undergoing significant current or predicted downward trends in habitat capability that would reduce a species’ existing distribution;
- A federal listed, proposed, candidate, or state-listed status may become necessary;
- Typically have small and widely dispersed populations;
- Inhabit ecological refugia or other specialized or unique habitats; or
- Are state-listed but which may be better conserved through application of the BLM Sensitive Species Status. (Bureau of Land Management, 2015)

The Wyoming State BLM Office identifies 82 species as sensitive. These species can be found on the Wyoming State BLM [sensitive species page](#)<sup>33</sup>.

### *USFS Sensitive Species*

#### ***Rocky Mountain Region***

The Rocky Mountain Region of the USFS has 173 identified sensitive species. These species are included on the USFS Region 2 sensitive species [webpage](#)<sup>34</sup>.

#### ***Thunder Basin National Grassland***

The Thunder Basin National Grassland (TBNG) lies in the northeast corner of Converse County. In 2020, the TBNG released the land use plan amendment on prairie dog management. The Forest Service currently classifies the black-tailed prairie dog as a Species of Conservation Concern which is in direct conflict with the Wyoming Department of Agriculture designation of an agricultural pest. Prairie dog colonies have grown significantly and have the ability to cause significant resource damage.

#### ***Thunder Basin Grasslands Prairie Ecosystem Association Conservation Agreement (TBGPEA CCAA/CCA/CA)***

In 2017 the TBGPEA finalized a conservation agreement (CCAA/CCA/CA) spanning 13.2 million acres of sagebrush and shortgrass prairie. The agreement spans five counties, including Converse County, promoting landscape management and proactive habitat conservation with economic growth in mind. The species included in the agreement are the sagebrush sparrow, Brewer’s sparrow, sage thrasher, black-tailed prairie dog, mountain plover, burrowing owl, ferruginous



hawk, and greater sage-grouse. For additional information on TBGPEA’s work refer to their [website](#)<sup>35</sup>. (TBGPEA, 2020; USFWS, 2019)

### **Medicine Bow-Routt National Forest**

Management Indicator Species and Threatened, Endangered, Proposed, Candidate and Forest Service Region 2 Sensitive Species can be found [here](#)<sup>36</sup>.

#### **6.4.3 Threatened and Endangered Species Resource Management Objectives:**

- A. Converse County participates in local, state, and federal rulemaking and planning regarding the designation and management of any species designated in any category or classification for protection or consideration of protection, under the Endangered Species Act in and adjacent to Converse County.
- B. Critical habitat exclusion analysis is completed for all lands within Converse County during the Endangered Species Act listing process including a local economic and social impacts analysis and critical habitat is only considered in those lands where the endangered species could currently survive.

#### **6.4.4 Threatened and Endangered Species Priority Statements:**

1. Converse County and other local governments shall be notified of all proposed actions and final decisions which affect the County regarding sensitive, threatened, or endangered species; critical habitat designation and exclusion; the reintroduction or introduction of listed species; habitat conservation plans; conservation agreements or plans; and candidate conservation agreements and shall be given the earliest opportunity to participate as a cooperating agency.
2. Federal agencies shall comply with the applicable state and federal statutes, including preparation of an environmental impact statement when critical habitat is designated.
3. Should any introductions or re-introductions of threatened or endangered species occur in Converse County or on lands adjacent to the County the population should be designated as non-essential experimental populations (refer to 10J rule of ESA).
4. Federal agencies should delist a species once population goals set out in recovery plans are achieved, in accordance with the Endangered Species Act.
5. Federal agencies should work with Converse County to explore alternatives to listing, which may include conservation plans and related conservation agreements with local, state, and federal agencies to address possible threats to species and their habitat and avoid official listing under the Endangered Species Act.
6. Converse County generally supports the use of candidate conservation agreements with assurances (CCAA) for private land and candidate conservation agreements (CCA) for federal lands as a mechanism to provide habitat for candidate species while allowing current land uses to continue. The County expects federal agencies to acknowledge and abide by agreements in the CCAs and weigh their value in federal actions.
7. Any black-footed ferret management and introductions shall not occur unless approved by local governments. Any effort to reintroduce black-footed ferret shall occur in



coordination with the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service as required in the 2020 Thunder Basin National Grassland Record of Decision.

8. Federal agencies should conduct a robust and full local economic analysis of all proposed critical habitat designations in Converse County and should the economic analysis indicate economic harm to Converse County the U.S. Fish and Wildlife Service should immediately exclude habitat from critical habitat designation.
9. Federal agencies shall support the development of recovery plans within 18 months of listing that include clear objectives to reach for delisting to occur; for species already listed Converse County supports the development of a recovery plan within 18 months of the adoption of this Natural Resource Management Plan.
10. Recovery efforts for threatened and endangered species should be supported, which consider local interests and impacts and should evaluate, mitigate, and support Converse County's custom, culture, economic viability and community stability.
11. Federal agencies should control predators negatively impacting special status, candidate, or listed species before restricting other multiple uses that could be conflicting.
12. Federal agencies should support proven and efficient control of zoonotic and vector borne diseases negatively impacting special status, candidate, or listed species before restricting other multiple uses that could be conflicting.
13. Management actions which increase the population of any listed species in Converse County without an approved and specific recovery plan is not supported.
14. Federal agencies shall support the continued use of existing valid permits and lease rights on lands with listed species wherever possible.
15. At a minimum, copies of legal descriptions showing the exact boundaries of all designated critical habitat shall be provided to Converse County.
16. For any species on the Endangered Species Act list, Converse County should be apprised, at minimum, annually of the progress of population recovery objectives for each species.

## 6.5 FISHERIES

### 6.5.1 History, Custom and Culture

Fishing along the North Platte River and its tributaries has been a traditional activity in Converse County, both for local residents and for visitors. Income for County residents is provided by activities such as selling supplies and equipment, outfit guiding, providing lodging, providing meals, and other services. The North Platte River provides many recreational opportunities in addition to fishing, such as float trips, bird and wildlife viewing, among others. The State Fair Grounds are located next to the North Platte River and the river provides numerous hours of entertainment for groups enjoying activities at the fairgrounds.

Fisheries support the recreation and tourism industries in Converse County. Fishing is an important recreation use of water resources within the basin (HKM Engineering Inc., 2002a). The combination of healthy fisheries and public access throughout the County's reservoirs, lakes, and rivers provide diverse fishing opportunities that attract recreators. Healthy native fishery populations are also an indicator of watershed health. The Northeast River Basin is composed of four watersheds, Little Missouri River, Belle Fourche River, Cheyenne River, and Niobrara River.





Within the Platte River Basin, the ‘Pathfinder [Dam] to Guernsey’ subbasin spans southern Converse County. These watersheds support a diversity of fisheries, from trout to channel catfish, bass, and walleye. (HKM Engineering Inc., 2002a; WWDC, 2006)

### 6.5.2 Resource Assessment and Legal Framework

The WGFD manages and monitors fishing activity throughout the state. The State of Wyoming classifies trout streams into four separate designations listed below.

- Blue Ribbon (national importance) - >600 pounds per mile
- Red Ribbon (statewide importance) – 300 to 600 pounds per mile
- Yellow Ribbon (regional importance) – 50 to 300 pounds per mile
- Green Ribbon (local importance) - <50 pounds per mile

In 2015 the state of Wyoming established multiple initiatives to protect and utilize water resources. The River Restoration initiative develops strategies, financial tools, and technical expertise to further stream restoration efforts across the state. The Collaborative Fish Passage Initiative takes a similar approach to further fish passage development and infrastructure while meeting water user’s needs. Refer to the WGFD page [here](#)<sup>37</sup> for additional information surrounding these initiatives.

WGFD develops aquatic management plans for the state. The 2020 Statewide Wildlife Habitat Plan addresses three major goals: to conserve and protect crucial aquatic and terrestrial wildlife habitats, to restore aquatic and terrestrial wildlife habitats, and to conserve, enhance, and protect fish and wildlife migrations. The plan also lays out strategies for managing priority areas. (WGFD, 2020a)

Currently, WGFD has designated 64 Crucial Priority Area for aquatic habitats throughout Wyoming. These areas are managed or protected to maintain viable and healthy populations of wildlife. For more information on Priority Area designations throughout the state refer [here](#)<sup>38</sup>. (WGFD, 2015, 2020c)

The major challenges and limiting factors to supporting sport fisheries within Converse County are barriers to natural fish migration and inefficient irrigation infrastructure which lead to water shortages during critical periods.

#### *Fishery Use*

The southern half of Converse County contains more ideal fishery habitat and resources than the northern half of the county where there are no streams or rivers classified. This is indicative of the Northeast Wyoming Basin’s flat drainages and common erodible soils not being conducive to fishery habitat. The Platte River Basin Water Plan reported 60,815 angler days/year for the ‘Dave Johnston Power Plant to Glendo Dam’ reach, which is located mostly within the County. The plan also recorded 15,947 angler days/ year for the ‘Alcova Dam to Dave Johnston Power Plant’ reach, of which nearly half of the river segment is located within Converse County (WWDC, 2006). WGFD tracked 1,062 angler days annually on streams and 13,732 angler days annually on ponds, lakes,





and reservoirs within the Cheyenne River Drainage (spanning the norther portion of Converse County) in records prior to 2002. (HKM Engineering Inc., 2002a)

There is one stretch of blue-ribbon along the North Platte River, multiple red ribbon stretches (Deer Creek, Texas Creek, and LaPrele Creek), and several yellow ribbon stretches classified in the southern half of Converse County. The WGFD Fish Stream Classifications map can be found [here](#)<sup>39</sup>. (HKM Engineering Inc., 2002a; WGFD, n.d.-d)

### **6.5.3 Fisheries Resource Management Objectives:**

- A. Aquatic resources within Converse County are managed for healthy and biodiverse fisheries that support recreation and tourism.
- B. The introduction and control of aquatic invasive species, that can cause significant harm to an ecosystem if introduced, are managed appropriately.

### **6.5.4 Fisheries Priority Statements:**

1. Federal agencies should assist in the improvement of irrigation structures to ensure sufficient water flows during critical times for fisheries.
2. Fisheries management plans shall be generated to protect the overall health of all fisheries resources within an area, not specifically managed for one individual fish species.
3. Fisheries management plans will use independent scientific data, peer-reviewed science, and/or those data meeting the ‘credible data’ as defined in Chapter 1 and as set forth in each agency’s manual to generate fisheries plans.
4. Federal agencies should conduct fisheries habitat monitoring efforts and refine available fisheries habitat data.
5. Federal agencies should conduct water quality monitoring before, during, and after all projects that may have impacts on aquatic resources.
6. Federal agencies should support all river restoration, fish passage, and aquatic/riparian area enhancement projects.
7. Converse County encourages interagency and inter-government enhancement projects.
8. Federal agencies should assist in promotion of boat inspection locations for prevention of aquatic invasive species.

## **6.6 WILD HORSES AND ESTRAY LIVESTOCK**

### **6.6.1 History, Custom, and Culture**

Under the Wild Free-Roaming Horse and Burro Act (WFRHBA), BLM is required to maintain wild horse and burro population levels “in a manner that is designed to achieve and maintain a thriving natural ecological balance” and to establish appropriate management levels for the herd, considering the relationships with other uses of the public, and adjacent private lands (16 U.S.C. § 1333(a); 43 C.F.R. § 4710.3-1). The WFRHBA was specifically amended, then, to require “immediate” removal of excess horses. 16 U.S.C. § 1333(b)(2).



Wild horses, as they are now perceived, are not native to America’s rangelands; they are feral animals. Their vulnerability to predators is limited and their population growth rate is high. BLM estimates the growth rate of the wild horse population to be 20 percent annually.

Once the inventory occurs and the AML has been set, if an overpopulation of wild horses exists, the BLM “shall immediately remove excess animals from the [public] range so as to achieve appropriate management levels (AMLs).” See 16 U.S.C. § 1333(b) (1) and (2) and 43 C.F.R. § 4720.1 (“Upon examination of current information and a determination by the authorized officer that an excess of wild horses ... exists, the authorized officer shall remove the excess animals immediately...”). “Excess animals” are defined as those that must be removed in order to preserve and maintain a thriving natural ecological balance and to preserve the “multiple use relationships” in an area. See 16 U.S.C. § 1332 (f). As stated in another section of the WFRHBA, “[A]ll excess animals” must be removed by the BLM “so as to restore a thriving ecological balance to the range, and to protect the range from deterioration associated with overpopulation” to preserve and maintain the “multiple use relationship in that area.” See 16 U.S.C. § 1333 (b)(2). When a determination is made that there is an “excess,” action is immediately required because the “endangered and rapidly deteriorating range cannot wait.” *Blake v. Babbitt*, 837 F. Supp. 458, 459 (D. D.C. 1993).

According to the Tenth Circuit, the BLM must make two determinations before the BLM’s duty to remove excess animals is triggered. *Wyoming v. United States Department of the Interior*, 839 F.3d 938 (10th Cir. 2016). The first determination is that an overpopulation exists on a given area of the public lands. *Id.* at 944. This is shown when an area exceeds its AMLs as discussed above. The second determination is that “action is necessary to remove excess animals.” *Id.* If a determination has not been made by the agency that an action is necessary, then the agency does not have a duty to remove those excess horses. *Id.*

Although there is no federal statute requiring private landowners to allow wild horses to graze on their private lands, private landowners cannot remove the horses; the BLM must be notified of any trespass horses. The WFRHBA mandates that the BLM, once notified, must “immediately” remove trespass wild horses from state and private land.

Wild horses have been problematic for federal land grazing permittees since the passage of the WFRHBA. In recent years, the BLM has been unsuccessful in completing gathers to reduce the numbers of wild horses on rangelands. Many HMAs are significantly over AML, causing harm to rangelands. HMAs are not fenced, allowing horses to cause degradation on private and state lands.

### **6.6.2 Resource Assessment and Legal Framework**

The Wild-Free Roaming Horses and Burros Act (WFRHBA) was passed by Congress in 1971 and declared wild horses and burros to be “living symbols of the historic and pioneer spirit of the West” (16 U.S.C. § 1331). The law requires the BLM and USFS to manage and protect herds in their jurisdiction in areas where wild horses and burros were found roaming in 1971. Under WFRHBA, “wild free-roaming horses and burros” on BLM land are under the Secretary of the Interior’s jurisdiction for the purpose of management. (16 U.S.C. § 1333(a)). The act requires that



the Secretary and BLM must inventory and determine appropriate management levels (AMLs) of wild horses and burros, determine if overpopulation exists, and “shall immediately remove excess animals from the range so as to achieve AMLs” (16 U.S.C. §§ 1333(b) (1) and (2) and 43 C.F.R. § 4720.1).

### ***Herd Areas***

Herd areas are areas in which wild horses and burros were found in 1971 and are the only areas BLM may manage horses by law. Herd areas are not currently managed for equines by the BLM but some may have feral horses or burros. There are currently no Herd Areas designated within Converse County managed for wild horses.

### ***Herd Management Areas (HMAs)***

Herd management areas (HMAs) are the areas selected within each herd area that were evaluated by BLM to have adequate food, water, cover, and space to sustain healthy and diverse “wild” horse and burro populations over the long term and were calculated using geographical information system (GIS). (National Horse & Burro Rangeland Management Coalition, 2015)

Herd management areas (HMAs) are lands under the supervision of the BLM that are managed for the primary but not exclusive benefit of free roaming wild horses and burros. There are 16 wild horse HMAs covering nearly five million acres of the state of Wyoming. There are currently no Herd Management Areas within Converse County. (BLM, n.d.-b)

### ***Estray***

"Estray" means any animal found running at large upon public or private lands, fenced or unfenced, in Wyoming whose owner is unknown, whose owner cannot be found, or that is branded with two or more disputed brands for which neither party holds a bill of sale. An estray includes any animal for which there is no sufficient proof of ownership found upon inspection (W.S. 11-24-101 through 11-24-115).

### **6.6.3 Wild Horse and Estray Livestock Resource Management Objectives:**

- A. No Herd Management Areas or Herd Areas will be designated or created in Converse County without coordination.
- B. Any estray livestock from public or private lands are immediately gathered and removed per Wyo. Stat. § 11-24-101.

### **6.6.4 Wild Horses and Estray Livestock Priority Statements:**

1. Converse County opposes any proposed creation, enlargement, or expansion of the current herd management area (HMA) or herd area (HA) boundaries and the designation of any additional new HMAs or HAs within the County.
2. Federal agencies should notify and coordinate with Converse County if there are any intentions to designate or create Herd Management Areas or Herd Areas within the County.
3. Any equine animal released from private individuals, tribes, or neighboring lands onto public lands after 1971 shall be considered as estray and be removed immediately.



## CHAPTER 7: ECONOMICS & SOCIETY

### 7.1 TOURISM AND RECREATION ON FEDERAL LANDS

#### 7.1.1 History, Custom, and Culture

Tourism and recreation on public lands in Converse County are a contributor to the custom, culture, and economy of the area. The County is unique in the recreational opportunities offered due to the diverse topography found across the county. From the plains to the north, to the mountains to the south, and with the North Platte River bisecting the center, many opportunities abound for the outdoor enthusiast. Traditionally, many residents and visitors prefer to recreate, camp, and picnic in the developed recreation areas. However, as popularity increases, dispersed camping on the national forest and grasslands is growing in frequency.

Tourism and recreation have remained centered around outdoor activities but have changed over the years in the County. Some agricultural operations have diversified to include recreation and tourism including outfitting. The use of motorized vehicles like off-highway vehicles (OHVs) for recreational use has significantly increased over the last several decades both for use as transportation to get to other recreational activities and as a recreational activity itself. Hunting and fishing opportunities within the area bring people both from other parts of Wyoming and the world to the County and is an important resource for tourism.

One of the largest tourist attractions to Converse County is the Wyoming State Fair. The Wyoming State Fair was officially started in 1905 and has always been an event that showcases the culture and heritage of Wyoming. It is a celebration of all things Wyoming and showcases pride in Wyoming heritage, agriculture, industry, youth, entrepreneurs, artists, and many others. (Wyoming State Fair, 2021)

#### 7.1.2 Resource Assessment and Legal Framework

Converse County has a wide array of recreational and tourism opportunities for residents and visitors. Visitors to these areas have a direct impact by drawing on county-provided infrastructure such as law enforcement, emergency medical, and waste disposal services and have a major impact on the area economy and tax base. Store owners, restaurants, hotels and motels, outfitters, and many more interests depend on seasonal recreation and tourism for their livelihoods. Activities that traditionally define recreation and tourism in the County, include, but are not limited to big game hunting, trapping, fishing, off-road vehicle use, winter sports such as snow machining and cross-country skiing, mountain biking, hiking, camping, bird and wildlife watching. Most of these activities are done on BLM and USFS lands within the county. The North Platte River flows through the County and into the nearby Glendo Reservoir providing water sport opportunities including rafting, fishing, and water skiing. There are three museums within Converse County that house artifacts from the Oregon Trail era. The Paleontological Museum in Glenrock has an extensive collection of Jurassic-age dinosaur bones and offers opportunities for dinosaur digs.

The Ayres Natural Bridge Park is in Converse County and is one of only three natural bridges in the U.S. with water flowing beneath. Ayres Natural Bridge was one of Wyoming's first tourist



attractions and is now a park that offers beautiful scenery, a picnic area, hiking paths, a sand volleyball court, fishing areas, and horseshoe pits. There is some limited camping available to recreational vehicles. (Converse County, 2014)

Another tourist attraction within the County is Camp Douglas which was an internment camp for prisoners of war during World War II. The only remaining building of the camp is the officer's hall which is listed on the National Historic Register. There are large murals, painted by Italian prisoners of war, that cover the walls of the building. (Converse County, 2014)

Other recreational sites in Converse County include:

- County Park (Boxelder Canyon)
- Converse County Shooting Range
- Deer Creek Stage Station
- Esterbrook Recreation Area
- Glenrock Buffalo Jump
- Medicine Bow National Forest
- North Platte River
- Paleo Museum – Glenrock
- Rock in the Glen
- Thunder Basin National Grassland
- Wyoming State Fair Park
- Wyoming State Pioneer Museum

### **7.1.3 Tourism and Recreation Resource Management Objective:**

- A. Recreational and tourism resources are managed to promote access and availability to the public for both tourism and local recreational uses, while maintaining benefits to Converse County's economy across important industries including agriculture, mineral development, and tourism.

### **7.1.4 Tourism and Recreation Priority Statements:**

1. Federal agencies should coordinate with Converse County to identify and promote recreational opportunities that do not conflict with adjacent property owners or create undue burden on the limited county resources to support them.
2. Coordination efforts should rely heavily on National Visitor Use Monitoring data when developing forest and grassland plans, policies, and projects.
3. Encourage wide dispersion of recreational activities in the forest and on the grasslands to avoid over-use crowding.
4. Converse County should be notified and be given the opportunity to participate as a cooperating agency at the earliest time possible for proposed federal agency actions or decisions affecting recreation and tourism opportunities on public lands in Converse County.
5. Federal agencies should support access to recreational opportunities on public lands within Converse County.



6. Federal agencies are encouraged to promote responsible tourism through educational outreach that explains the historical significance of areas, sites, and roads.
7. Federal agencies should encourage a year-round multiple use management approach for use on public lands as a means of continuing and enhancing recreation opportunities within Converse County while supporting other approved uses and associated private property rights.
8. Federal agencies should coordinate with Converse County when implementing land use fees and/or fee increases, or the creation of new fees for the recreational use of federal lands or State Parks within the County.
9. Federal agencies should coordinate and consult with Converse County to manage tourist and recreational activities based on the ability of natural resources to sustainably handle the level of impact.
10. Federal agencies should coordinate with Converse County when new special recreation permits are requested.
11. Federal agencies should encourage recreational activities on the lands in Converse County that increase the capacity for federal and state land resources to provide more economic return to the County.
12. Unless otherwise approved by Converse County, federal agencies should not favor one type of recreation to the exclusion of others.
13. Converse County supports the Wyoming State Fair staying within Converse County.

## 7.2 LAW ENFORCEMENT AND EMERGENCY MANAGEMENT

### 7.2.1 History, Custom, and Culture

Law enforcement is critically important to the citizens of Converse County. The Wyoming Livestock Board partners with the Converse County Sheriff's Department to aid in cases that transcend County and State boundaries. In general, cases regarding livestock theft are prosecuted through the County attorney's office.

### 7.2.2 Resource Assessment and Legal Framework

#### *Law Enforcement*

Law enforcement is critically important to the citizens of Converse County. Law enforcement in Converse County includes actions on both public and private lands. Public lands within Converse County are subject to law enforcement coordination when issues related to natural resource management and public lands arise, such as livestock theft or search and rescue operations. State law enforcement officials operating in Converse County include Wyoming Highway Patrol, Wyoming Livestock Board, Wyoming Game and Fish Department Game Wardens, Wyoming Department of Criminal Investigation, and State Park Rangers. Federal law enforcement officials operating in Converse County include BLM, USFWS, USFS, U.S. Marshals, and the EPA. As the use of public lands has increased, so has the need for law enforcement and coordination of federal law enforcement agents with the County Sheriff. The Converse County sheriff's office has MOUs with both the BLM and USFS to clearly lay out the roles, responsibilities, and coordination of these federal agencies with the County in law enforcement situations.



The Property Clause of the United State Constitution sets out the jurisdictional powers of state, local, and federal law enforcement officers on federal lands. Generally, federal lands have either proprietary or concurrent jurisdiction, meaning that local law enforcement is either the exclusive law enforcement agency in the area or that both local law enforcement and federal agency law enforcement share jurisdiction together to enforce laws on federal lands. Other federal lands, such as post offices or military bases have exclusive jurisdiction, and only the federal government may enforce federal laws within those areas. United States Constitution Article IV, Section 3, Clause 2. The Assimilative Crimes Act allows federal law enforcement agencies who lacks an appropriate federal charge to use an appropriate state law in federal court whenever necessary. (18 U.S.C. § 13)

FLPMA gives the BLM authority to retain BLM law enforcement officers who enforce federal law within BLM jurisdiction. Those officers have the authority to enforce federal laws, but do not have the authority to enforce state laws without written authorization from the local law enforcement agency in charge. FLPMA and the BLM’s regulations specifically give BLM law enforcement officers traditional police powers such as enforcing federal laws, carrying firearms, serving search warrants, making arrests with or without a warrant and conducting searches of places or people with or without a warrant in accordance with applicable laws and seizing evidence. (BLM, n.d.-a)

NFMA gives the USFS similar law enforcement authority. USFS law enforcement officers also have the authority to enforce federal laws and regulations within the national forests, but not state laws. Many of the USFS law enforcement regulations can be found in 36 C.F.R. Part 261. Their primary responsibility is “the protection of natural resources, protection of Forest Service employees and the protection of visitors.” (USFS, n.d.-b)

The Wyoming Livestock Board (WLSB) is responsible for the protection of livestock interests in the State from disease and theft. Seven members are appointed by the Governor and approved by the Senate for six-year terms. The State is divided into “appointment districts” as set by the Legislature. The Livestock Board Law Enforcement have several benefits that help with law enforcement regarding livestock in the county. These include:

- They are livestock law specialists.
- They can conduct case work across county lines.
- They collaborate with other states livestock investigators.
- They partner with county Sheriff Departments on cases
- They provide training for other state law enforcement agencies.

Converse County has an agreement with the Medicine Bow National Forest on law enforcement within the County.





## *Emergency Management*

### *Natural Disasters*

When a natural disaster is declared, the Federal Government, led by the Federal Emergency Management Agency (FEMA), responds at the request of and in support of States, Tribes, Territories, and Insular Areas and local jurisdictions impacted by a disaster. FEMA coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from natural disasters. (Federal Register, n.d.)

In 2018, the Wyoming Region 2 (Converse, Natrona, and Niobrara counties) [Hazard Mitigation Plan](#)<sup>40</sup> was updated. The plan assesses risk potential for different hazards including avalanche, drought, earthquake, flooding, geologic, severe thunderstorms (hail, lightning), tornado, wildland fire, wind/windblown deposits, winter storm/blizzards, communicable and infectious disease, dam failure, hazardous material release, and terrorism. The plan also ranks communities for each identified hazard.

### *Search and Rescue*

Wyoming law requires the Sheriff of each county to maintain a search and rescue (SAR) team. Search and Rescue (SAR) is defined as the employment, coordination, and utilization of available resources and personnel in relieving distress, preserving life, and removing survivors from the site of a disaster, emergency, or hazard to safety in case of lost, stranded, entrapped, or injured people. The Wyoming Office of Homeland Security serves as the account manager for SAR programs and operates using guidance from Wyo. Stat. 19, Chapter 13, Article 3 and the Wyoming Search and Rescue Council. The Wyoming Search and Rescue Council was established to assist Wyoming sheriffs, who are charged by state statute to conduct SAR operations. Council members are appointed by the governor.

### *Fire*

Wildland fire within Converse County is discussed in Section 3.4 Wildfire Management. Converse County has a county fire warden and there are three fire departments throughout the County.

- Converse County Rural Fire
- Douglas Fire Department
- Glenrock Fire Department

### *Communication and Technology*

Communications and associated technology are essential to the long-term viability of Converse County. Construction of communication and technology infrastructure requires rights-of-way across federal land. Recent proposals to restrict new rights-of-way across public land threaten the ability of the County to develop the necessary technological infrastructure necessary to support communication and technological services.

Communication infrastructure maintenance and development is vital to Converse County for health and safety of its citizens, economic development, business development and equal education opportunities.



In January of 2019, [Executive Order 13821](#)<sup>41</sup> was signed which ordered promotion of better broadband services in rural America. The order sought to accelerate the deployment and adoption of affordable, reliable, modern high-speed broadband connectivity in rural America for rural homes, farms, small businesses, manufacturing and production sites, tribal communities, transportation systems, healthcare facilities, and education facilities. Agencies should seek to reduce barriers to capital investment, remove obstacles to broadband services, and more efficiently employ government resources.

### **7.2.3 Law Enforcement Resource Management Objectives:**

- A. Law enforcement and emergency services have unfettered access to public lands to protect the health, safety, and welfare of the residents and visitors of Converse County.
- B. Communication infrastructure is developed on public lands to ensure emergency communication services exist throughout Converse County and citizens and visitors to the County can seek emergency assistance throughout the entire County.

### **7.2.4 Law Enforcement Priority Statements:**

1. Converse County has traditionally had an agreement with the Forest Service for law enforcement.
2. Converse County requires that federal agencies allow safe and unrestricted access to federal land for law enforcement and emergency services.
3. Federal agencies should work and coordinate with Converse County and other surrounding counties and agencies within the region to ensure that telecommunications and informational highway interests are heard and addressed to protect and promote the health, safety, and general welfare of the citizens of the County and surrounding areas.
4. Federal agencies should support increasing the number of adequate broadband T1-lines available within the community to enhance emergency response and protect the health, safety, and welfare of Converse County.
5. Federal agencies should encourage the introduction of the newest technology for accessibility from all areas within Converse County. Including siting of communication towers on public lands.

## **7.3 ECONOMIC AND SOCIOECONOMIC CONSIDERATIONS**

### **7.3.1 History, Custom, and Culture**

Natural resource products have always been at the heart of the economics in Converse County. In its early settlement, people came to Converse County to utilize its rich grassland and rangeland resources for livestock grazing. Later exploration of minerals and oil and gas led to a boom in the energy sector of the County. The railroad industry also had an economic impact on the county as it provided a means to export resources out of the state and boost supply and demand of natural resource products such as livestock, coal, and other materials.

In the late 1800's, the Elkhorn, Fremont, and Missouri Valley Railroad made its way across the County. The railroad provided two essential elements to the County's early economic development: transportation for livestock and need for fuel. Railroads provided an efficient means of transporting cattle and sheep to eastern markets, thus making ranching a more viable



business venture. With the railroads and the Homestead Statutes, the County soon became a thriving agricultural center. Agriculture continues to play an essential part in the economic diversity of the County. Most of the County's land mass is still occupied by family owned and operated ranches. These ranches are comprised of both deeded and leased lands (state and federal grazing leases) to form an efficient operating unit. These integrated ranches have been an economic staple of the County for over 100 years.

The second element essential to the County's economic development was the necessity of coal, used by early railroads to fuel their locomotives. This need for coal was the beginning of the County's long history of mineral exploration and development. From these early coal mines to the oil and gas discoveries of the 1920's, 50's, and 60's, the uranium development in the 70's and 90's, and the massive coal mines of today, and continuing today and into the future mineral exploration on both public and private lands has played a paramount role in providing jobs and a healthy tax base.

The development and success of the County's economy has long depended on the hard work and the pioneering spirit of its citizens in cooperation with the local, state, and federal government entities.

### **7.3.2 Resource Assessment and Legal Framework**

Converse County is 14% federally owned land with 124,736 acres of land under federal management. The population in the county is approximately 14,312 people. The largest employment industries in the county are mining and local government. However, the livestock and agricultural industries account for a substantial portion of Converse County's income as the oldest continuing industries in the county, and are still the single largest users of public lands within the County. The service industry continues to grow in Converse County and contributes to the area's culture. Some cattle and sheep ranchers use grazing leases on federal lands to maintain healthy and productive land and stock. In June 2018, Converse County, the University of Wyoming Extension, the Wyoming County Commissioner's Association, and the Wyoming Department of Administration & Information developed a socioeconomic profile of Converse County. This document and all updated socioeconomic profiles for Converse County can be found [here](#)<sup>42</sup>.

#### **National Environmental Policy Act**

NEPA can play a crucial role in the economic and socio-economic well-being of a community. NEPA applies to "every major Federal action significantly affecting the quality of the human environment" (42 U.S.C. § 4332(1)(C)). The courts have interpreted this to generally mean that every time the federal government decides for almost any action that may have an environmental impact, NEPA compliance is required. Some courts have even required agencies to follow NEPA when the agency spends a small amount of money on a project or program for which they are not the lead agency. *See e.g., Citizens Alert Regarding the Environment v. United States Environmental Protection Agency*, 259 F.Supp.2d 9, 20 (D.D.C. 2003). In 2020, a new final rule was issued with reforms to NEPA, however with the changes in administration this is likely to change.



On July 16, 2020, the Council on Environmental Quality issued a final rule in the Federal Register finalizing major regulation reforms to NEPA, including updated rules trying to clarify what is a “major federal action.” The new regulations clearly demarcate that only actions that include major federal involvement and are major in scale are those actions that require NEPA. This means that those projects that the government has a minor role in are not included. This also means that minor actions (such as allowing certain range improvements on a grazing allotment) are not included. See 85 F.R. 43304 (July 16, 2020). As of the finalization of this plan the rule is being challenged by several states and organizations.

NEPA requires that agencies undertake an environmental analysis to determine whether a federal action has the potential to cause significant environmental effects. If a proposed major federal action is determined to significantly affect the quality of the human environment, federal agencies are required to prepare an Environmental Impact Statement (EIS). The regulatory requirements for an EIS are more detailed and rigorous than the requirements for an Environmental Assessment (EA). NEPA does not mandate results or substantive outcomes. Instead, NEPA’s purpose is to “provide for informed decision making and foster excellent action.” 40 C.F.R. § 1500.1(a). Thus, NEPA ultimately does not require a specific result, but should be utilized to ensure that federal agencies “conduct environmental reviews in a coordinated, consistent, predictable, and timely manner, and to reduce unnecessary burdens and delay.” *Id.* at (b). Therefore, for an agency to be NEPA compliant, they need to make timely and coordinated decisions that are based on informed decision-making.

One of the greatest economic harms for a local community is the typical several year delay of an important project due to NEPA. Since 2010, the average EIS completion time was approximately 4.5 years and averaged more than 600 pages. Even more disturbing, over a quarter of the EISs during that time span took more than 6 years to complete (Council on Environmental Quality, 2010). CEQ regulations now require that EAs not exceed 75 pages and one year to complete unless a senior agency official of the lead agency approves a longer period in writing and establishes a new time and page limit. 40 C.F.R. § 1501.5, 1501.10. Similarly, CEQ regulations now require that EISs not exceed 150 pages (300 for proposals of unusual scope or complexity) and two years to complete, unless a senior agency official of the lead agency approves a longer period in writing and establishes a new time and page limit (40 C.F.R. § 1502.7).

To increase efficiency in the NEPA process, agencies are supposed to include cooperating agencies at the earliest time practicable to participate. Additionally, agencies are supposed to eliminate duplication of efforts by cooperating with local governments and form (1) joint planning processes; (2) joint environmental research and studies; (3) joint public hearings; (4) joint environmental assessments. 40 C.F.R. § 1506.2(b). Further, agencies, unless specifically prohibited by law, allow local governments to be joint lead agencies in certain NEPA decisions and cooperate in fulfilling local government requirements that may not conflict with federal law. *Id.* at (c).



### *Environmental Justice*

In February of 1994, Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was signed and directed each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations” including tribal populations. Environmental justice mitigation measures must be outlined or analyzed in EA, Findings of no significant impact (FONSI), EISs, and RODs. (EPA, 2015)

The structure and trends within a region’s economy are important to local officials, state governments, federal agencies, and the general public in more effectively conducting and participating in public policy decision-making processes.

### **7.3.3 Economic and Socioeconomic Resource Management Objectives:**

- A. The socioeconomic and economic viability of Converse County is prioritized, protected, and enhanced in all federal actions or decisions.

### **7.3.4 Economic and Socioeconomic Priority Statements:**

1. Converse County requires consultation and coordination from federal agencies at the earliest time possible for any proposed action, change of existing activities, newly permitted activities, or changes in regulations that may affect the economic basis of the County.
2. Federal agencies should support continued access to natural resources development/use on federal lands to maintain economically viable communities in Converse County.
3. Converse County supports “no net loss” in the County economic base due to federal agency decisions.
4. Federal agencies should include Converse County in all discussions regarding mitigation, if necessary, to protect the economic base of the County.
5. Federal agencies should support the analysis of social and economic factors at the lowest possible level, such as on a County-wide basis, in addition to consideration on a state-wide or national scale.
6. Federal agencies should promote the economic and socioeconomic growth of Converse County and engage in consultation and coordination between federal agencies and the County regarding any issues and activities on public land that affect or influence the County’s economic and socioeconomic viability.
7. Converse County supports impacts assistance opportunities and funding (i.e., sewer, water, fire, law enforcement, emergency, natural resource mitigation, etc.) as early in the industrial development process as possible.
8. Converse County supports the achievement of a sustainable balance between economic, recreational, and conservation use of lands for economic growth and quality of life.
9. Converse County supports federal Payments in Lieu of Taxes, severance taxes from oil and gas development, and grazing fees through the Bankhead Jones Farm Tenant Act.
10. Federal agencies should discourage the use of informal policies or unofficial classifications by federal agencies to withhold high energy potential areas from leasing or development.



11. A full analysis shall be required by the federal agencies on the impact each proposed decision or federal action will have on the local Converse County economy.



## CHAPTER 8: AGRICULTURE RESOURCES

### 8.1 AGRICULTURAL PRODUCTION

#### 8.1.1 History, Custom, and Culture

Agricultural lands contribute to the County's landscape and scenic beauty, provide wildlife habitat, and provide recreational opportunities for residents and visitors alike for hunting, fishing, snowmobiling and other tourism-related activities. Agriculture is an invaluable source of employment, affordable food, raw materials, and open space to the County. Agriculture also provides numerous opportunities for environmental stewardship to benefit local ecosystems and serves as key component of the County's sustainable economy.

Public land grazing is essential to maintaining the agricultural industry in Converse County. Public lands provide livestock forage during the summer months which allows private lands in some areas of the county to grow hay that is used as forage in the winter months. Without this hay production ranchers would have to purchase winter feed which can be expensive and may not be economically feasible for the operator. In other areas where the land or water resources are not capable of growing crops, private lands use grazing opportunities. Agricultural land also provides open space that is valuable for wildlife habitat, aesthetics, and in some area's recreational opportunities.

#### 8.1.2 Resource Assessment and Legal Framework

Agriculture is an important industry in Converse County. In 2017, 95% of the land in Converse County was devoted to agriculture. Most of the agricultural land is pasture/rangeland, while only 4% of the County was designated cropland. The 2017 Converse County Census of Agriculture Profile ranks the County as seventh in the state for livestock products and tenth for crop production. Converse County ranks second in the state for sheep, goats, and wool; fifth in the state for horses, ponies, mules, burros, and donkeys; and eighth in the state for milk from cows. The 2017 total market value for livestock products was \$49,444,000 and for crop products was \$6,902,000. Agriculture, particularly livestock, is a major source of revenue and employment for Converse County. (USDA, 2017)

The climate of the region provides for a short growing season that is often dry and cold. Irrigated agriculture relies on the distribution of water from rivers and reservoirs through canals and pipelines. Some or all of these may reside on or pass through federal and state lands where permitting issues are triggered for maintenance and expansion. According to the U.S. Census of Agriculture, Converse County had 65,241 acres of irrigated land in 2017. This makes the retention and proper management of water rights a priority for the citizens of Converse County.(USDA, 2017)

#### *Right to Farm Laws*

Right to farm laws have been enacted in all fifty states. These laws seek to protect qualifying farmers and ranchers from nuisance lawsuits filed by individuals who move into a rural area where normal farming operations exist, and who later use nuisance actions to attempt to stop





those ongoing operations. Wyoming’s right to farm laws are known as the “Wyoming Right to Farm and Ranch Act.”

The basis for these priority statements in this NRMP is to carry out the state law mandate to protect agricultural practices through the ‘Right-to-Farm’ statutes as listed below.

*“To protect agriculture as a vital part of the economy of Wyoming, the rights of farmers and ranchers to engage in farm or ranch operations shall be forever guaranteed in this state” (Wyo. Stat § 11-44-104(a)) . (National Agricultural Law Center, n.d.)*

### **8.1.3 Agricultural Production Resource Management Objectives:**

- A. Agricultural production is maintained as a viable and major component of the economy, custom, and culture of Converse County.
- B. Federal actions affecting agricultural production are made in consultation and coordination with Converse County.

### **8.1.4 Agricultural Production Priority Statements:**

- 1. Federal agencies should support agriculture production and the responsible use of natural resources to sustain agricultural enterprises.
- 2. Federal agencies should support development of all plans and policies that directly or indirectly affect agriculture with the intent of increasing the stability and expansion of the industry as well as encouraging innovative techniques that improve the efficiency of crop and livestock production.
- 3. Federal agencies should quickly process permits on federal lands for the construction, maintenance, or expansion of water distribution systems to private lands, and allow maintenance where those rights already exist through a range improvement agreement.
- 4. Federal agency actions should be consistent with Right to Farm laws, to the extent applicable.
- 5. Any agricultural property damage or crop loss caused by an escaped prescribed burn, fire suppression efforts, or damage caused by government agency action, resulting in economic loss in Converse County shall be considered justification for economic compensation and restoration by the responsible agency to the property owner at current market values, to be accomplished in a reasonable amount of time, not to exceed 12 months.
- 6. Wildlife and federal lands managers, including but not limited to the Bureau of Land Management, U.S. Forest Service, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Bureau of Reclamation, and Wyoming Game and Fish Department are expected to coordinate with private property owners to minimize impacts to private property and property rights.
- 7. Federal agencies should streamline the application process for range improvements and applications should be approved in six months or less.
- 8. The individual that files for an improvement/development permit on Bureau of Land Management shall be allowed to manage the resource and the permit shall be in their name if it is approved.



9. The individual that files for an improvement/development permit on United States Forest Service should be allowed to manage the resource and the permit should be in their name if it is approved.
10. Federal agencies should encourage agricultural operations within Converse County and promote their sustainability.
11. In conjunction with ranch owners/managers, local, state and federal planning partners should develop economically sustainable strategies to maintain working ranches.
12. Federal planning-level and project-level National Environmental Policy Act documents should properly characterize and analyze the area, recognizing the benefit of ecosystem services provided by working ranches to adjacent or nearby public lands.

## 8.2 LIVESTOCK GRAZING

### 8.2.1 History, Custom, and Culture

The vegetation in Converse County evolved with grazing and periodic fire over more than 10,000 years. Grazing in the region began to shape the modern vegetation we see today around 18,000 years ago in the Pleistocene. Eventually these species were replaced by the wildlife we know today. Wildlife, wildfire, and early humans continued to shape the vegetation of the basin. In the late 1600s to mid-1700s Native Americans obtained the horse and became pasture managers as well as wildlife managers, manipulating the vegetation and animal populations.

Permitted grazing on public lands is a critical piece of livestock operations in Converse County. While limited, but critical, the intermingled BLM, USFS, and private lands allow ranching to continue in the County.

Livestock grazing has been an important industry in Converse County since early settlement and continues to be a vital part of the custom and culture of the County as well as a critical economic driver. The most efficient operations use a combination of private, state, and federal lands. Historically, ranchers across Wyoming have grazed animals on open ranges and mountains on federal and state lands during summer months and moved the stock to private lands during the winter months where livestock can be fed hay from the irrigated pastures. Such operations are some of the most efficient, sustainable, and economically productive for producing livestock.

The contribution of the ranching industry to the County goes beyond the critical economic livestock sales. Studies in similar counties have shown that ranchers tend to spend the majority of their dollars in the County they reside in on fuel, food, supplies, and equipment. A thriving agriculture industry helps maintain local economies. (Miller & Heaton, 2015)

### 8.2.2 Resource Assessment and Legal Framework

A large part of the vegetation in the County is lower producing saltbush and sagebrush areas, while many of the forested leases are highly productive but with limited forage available due to dead and downed timber. Low-productivity rangelands makes for a narrow profit margin. When agencies make a management decision without considering the economic impact on a rancher or a group of ranchers, they can be impacted along with the local community. When federal agencies reduce permitted livestock numbers for any operator, their entire operation is



impacted, especially economically. Any reduction in livestock on federal lands directly affects the economy and culture of Converse County.

There are some areas in the County that are in intermingled land ownership. When federal land management policies are enacted, they influence the management of the associated private land. There are many management challenges that accompany the checkerboard federal and private lands, including access, land use, water rights, and grazing rights. With the federal agencies managing a large amount the rangeland in the County, ranchers must rely on obtaining federal grazing leases.

Reduction in livestock numbers on federal and state lands can be a result of natural factors, including wildfire and drought. The primary factors in determining livestock grazing capacity on the land is the quality and availability of the resources. Proper grazing management is an important tool for management of the resources, and can be used to mitigate invasive species impacts, wildfire impact, and should improve rangeland health.

Livestock grazing, irrigated farming and other intensive agricultural practices are integral to this community's ability to remain viable with a diverse and sustainable economy. Ranching and agricultural operations maintain open space and large landscapes to support multiple uses.

The Taylor Grazing Act of 1934 (43 U.S.C. 315) established the Grazing Service, which eventually became known as the BLM. Local BLM grazing advisory boards created an adjudication process to determine where, when, and what type of livestock grazing could occur on public rangelands. To receive an allotment through this process, the stockman had to have (1) "commensurate base property" on which he could graze his livestock when they were not using the federal lands, (2) have an economically viable livestock operation and (3) be members of the local community and support the local stability of the community. 43 U.S.C. § 315b. The TGA gives individuals the right to apply for grazing permits on federal lands based upon the ownership of qualified base property. 43 U.S.C. § 315(b). The purpose of the TGA is "to stabilize, preserve, and protect the use of public lands for livestock grazing purposes..." *Barton v. United States*, 609 F.2d 977 (10<sup>th</sup> Cir. 1979). As the court in *Public Lands Council v. Babbitt*, explained, "Congress enacted the [TGA], establishing a threefold legislative goal to regulate the occupancy and use of the federal lands, to preserve the land and its resources from injury due to overgrazing, and 'to provide for the orderly use, improvement, and development of the range.'" 154 F.3d 1160, 1161 (10<sup>th</sup> Cir. 1998). Once a grazing district is established, grazing must occur on the land. *See generally, Mountain States Legal Foundation v. Andrus*, 499 F.Supp. 383 (D. Wyo. 1980) (holding that the intent of FLPMA was to limit the ability of the Secretary of the Interior to remove large tracts of public land from the operation of the public land laws). Further, Congress intended that once the Secretary established a grazing district under the TGA, the primary use of that land should be grazing. *Public Lands Council v. Babbitt*, 167 F.3d 1287, 1308 (10<sup>th</sup> Cir. 1999) *aff'd on other grounds*, 529 US 728 (2000). The Secretary can modify the boundaries of a grazing district, but unless land is removed from designation as grazing, or the Taylor Grazing Act designation is terminated, the Secretary must use it for grazing. 43 U.S.C. § 315.



When modifying the boundaries of a grazing district or terminating the Taylor Grazing Act designation of an allotment, the Secretary must classify the land as no longer “chiefly valuable for grazing.” May 13, 2003, Solicitor’s Memorandum to the Assistant Secretaries for Policy, Management and Budget, Land and Minerals Management and the Director, Bureau of Land Management, clarifying the Solicitor’s Memorandum M-37008 (issued October 4, 2002). Thus, a permittee may relinquish a permit but, barring the Secretary determining that there is a better use for the land through land use planning, the forage attached to the permit must be available for grazing. Thus, except upon the showing that the land is no longer “chiefly valuable for grazing,” the Secretary does not have discretion to bar grazing within a grazing district and must therefore review applications for grazing permits and make a final decision in a timely fashion when they are filed.

There are 141 BLM grazing allotments in Converse County with approximately 25,244 AUMs on 129,947 acres.

### ***BLM Range Improvements***

All range improvements on BLM lands must be authorized by the agency. There are two options for authorization: (1) a Cooperative Range Improvement Agreement or (2) a Range Improvement Permit. The Cooperative Range Improvement Agreement identifies how the costs of labor, materials, and maintenance are divided between the agency and the permittee. Range Improvement Funds can be used for labor, materials, and final survey and design of projects to improve rangelands. The Range Improvement Permit requires the permittee or lessee to provide full funding for construction and maintenance of the improvement. NEPA analysis is not required for normal repair and maintenance of range improvements that are listed on a term grazing permit; permission of the authorized officer is also not required. However, for reconstruction of a range improvement or construction of new improvements, NEPA analysis and a decision by the authorized officer is required. Range improvements such as water developments benefit wildlife in addition to livestock.

### ***Grazing Flexibility***

Flexibility for grazing is allowed under 43 CFR § 4130.3-2 (f) which states “Provision for livestock grazing temporarily to be delayed, discontinued or modified to allow for the reproduction, establishment, or restoration of vigor of plants, provide for the improvement of riparian areas to achieve proper functioning condition or for the protection of other rangeland resources and values consistent with objectives of applicable land use plans, or to prevent compaction of wet soils, such as where delay of spring turnout is required because of weather conditions or lack of plant growth;”

The BLM recently implemented an initiative known as Outcome-Based Grazing Authorizations (OBGAs). The initiative is designed to offer a more collaborative approach between the BLM and its partners within the livestock grazing community when issuing grazing authorizations. The purpose behind OBGAs is to improve BLM’s management of grazing on public lands by offering livestock operators greater flexibility to respond more readily to changing on-the-ground conditions, such as drought or wildfire. This will better ensure their ability to manage ranching



operations that are economically sustainable while also providing healthy rangelands and high-quality wildlife habitat. Decreasing the response time to changing field conditions is one of the primary goals of the demonstration project. The program highlights BLM's commitment to partnerships, vital to managing sustainable, working public lands.

The flexibility outcome-based grazing provides is to support:

- Enhanced partnerships for managing livestock grazing.
- Implement grazing based on conservation performance and ecological outcomes rather than hardline metrics.
- Improvement, management and/or protection of public lands within a grazing allotment or specified geographic area; and,
- Continued achievement or attainment of positive economic and social outcomes.

As part of the initial implementation program, eleven ranches across the west were selected as pilot projects for OBGAs. The projects on these specific ranches are being used to share experience and demonstrate or develop best practices to be considered in other BLM grazing permit renewals. As part of the process, the pilot projects developed goals and objectives as part of their permit (often including goals and objectives for ecological, social, and economic aspects of the operation). A monitoring plan was also required for the pilot projects that laid out short-term and long-term monitoring objectives to capture the results of the increased flexibility. Range improvements were also identified as part of the OBGAs pilot projects to help with the ability to become more flexible on the different operations. Several of the pilot projects are into the implementation phase, while several others are still working through the NEPA process for approved grazing permits. The information acquired through these pilot projects will allow for recommendations for regulatory modifications that could better provide for the ability to issue OBGAs that maximize and normalize the use of flexibility to address changing conditions. The BLM and its partners will not only share the responsibility for reaching the mutual objectives of this project but also for monitoring its success.

Livestock grazing within the Medicine Bow National Forest and Thunder Basin National Grassland was historically important to settlers within Converse County. Within Converse County there are 73 USFS grazing allotments. There are approximately 41,398 AUMs on 259,284 acres in Converse County. Of this approximately 35,910 AUMs are on 173,375 acres of the Thunder Basin National Grassland in northern Converse County and the remaining 5,488 AUMs are on 76,330 acres of the Medicine Bow National Forest in the southern part of the county.

### *USFS Range Improvements*

All range improvements on USFS lands must be authorized by the agency. The USFS allows structural improvements (e.g., fencing) and non-structural improvements (e.g., change in management practices). Any requirements for permittee construction or development of range improvements are identified in the grazing permit with credits for improvements (if any) to be allowed toward the annual grazing fee. It is a common practice for the USFS to furnish materials and the permittee to provide labor for structural improvements. If significant costs are expected,



the permittee can assume responsibility for the improvement (maintenance) but the USFS generally holds title to the improvement. Should the improvement not be adequately maintained, the USFS can take action against the permittee for non-compliance with their grazing permit. Range Betterment Funds are available for planning and building rangeland improvements.





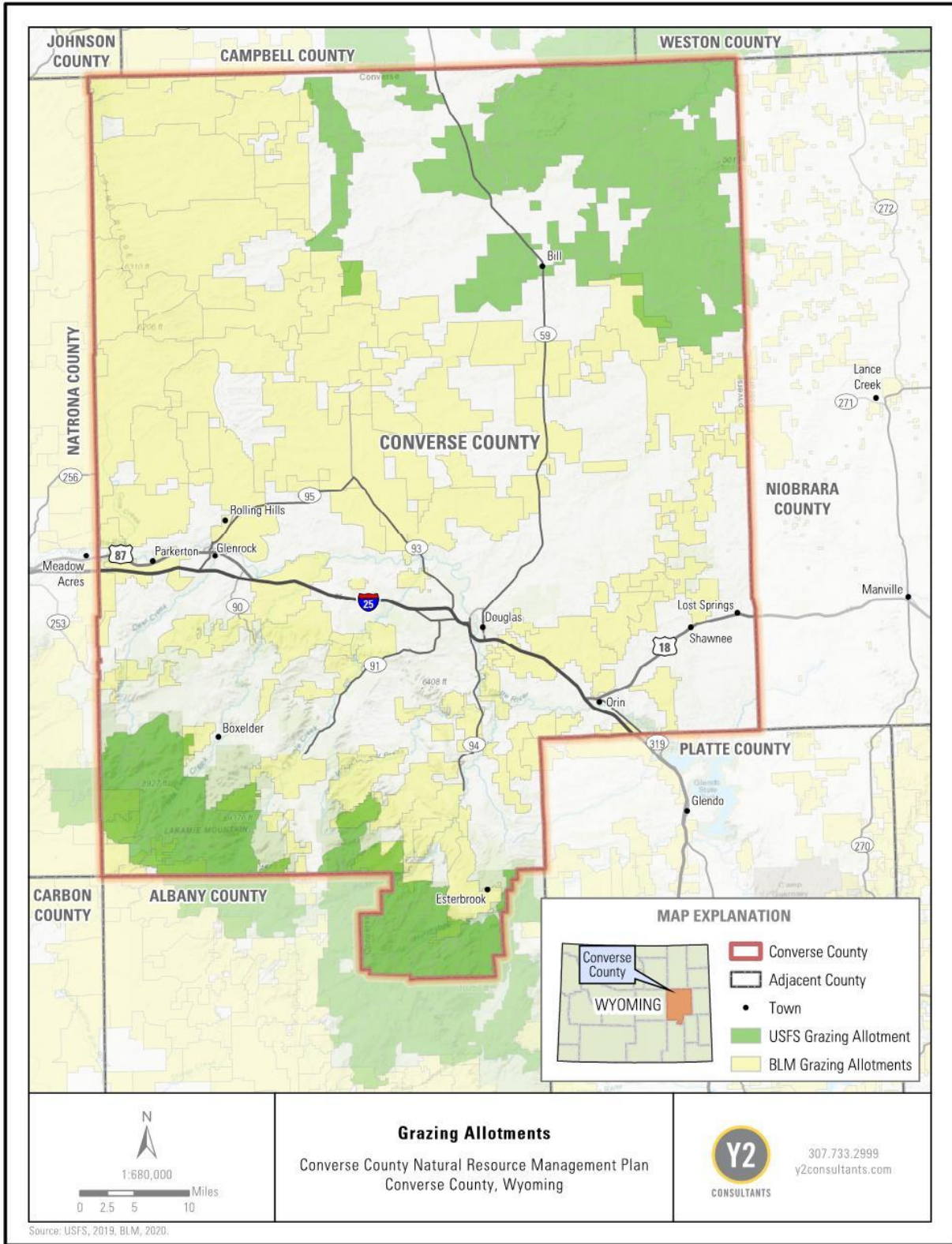


Figure 20. Converse County grazing allotments on USFS and BLM lands.





### **8.2.3 Livestock Grazing Resource Management Objectives:**

- A. Livestock grazing is maintained as a viable major component of the economy, custom, and culture of Converse County.
- B. Converse County is consulted early in the scoping process whenever a proposed decision will impact grazing, local agriculture producers, and/or the economy.
- C. Federal decisions affecting grazing use best available scientific information and localized baseline and monitoring data are given heavier weight than regional, state, or national data.

### **8.2.4 Livestock Grazing Priority Statements:**

- 1. Federal agencies should utilize rangeland standards and guidelines that are scientifically proven and peer reviewed specifically for Converse County.
- 2. Federal agencies should work in coordination with local grazing associations to ensure that all allotments that are not officially closed are being appropriately managed and that allotment retirements do not occur.
- 3. Federal agencies should support range livestock production that is environmentally and economically viable.
- 4. Federal agencies should coordinate with the Wyoming Game and Fish Department to ensure that wildlife and big game numbers do not outstrip habitat and to reduce conflicts between rangeland resources for livestock grazing, wildlife forage, and habitat needs.
- 5. Federal agencies should comply with all applicable state and federal rangeland and livestock grazing laws, with state law being applied when there is no clear federal preemption.
- 6. Federal agencies should use coordinated range management plans for each grazing allotment that allows for the flexibility and updating of management during the ten-year term of the grazing permit.
- 7. Federal agencies should facilitate range improvement projects and enhancement of habitat to benefit rangeland, soil, water, livestock, and wildlife.
- 8. Federal agencies should make range improvement management decisions on an allotment basis.
- 9. Federal agencies should not restrict the development of livestock water or other rangeland improvements.
- 10. Federal agencies should work cooperatively with the local ranchers and other interested parties to address resource concerns on a site-specific basis.
- 11. Federal agencies should work with producers to increase productivity of rangeland in order to ensure animal unit months are set at maximum sustainable levels on rangelands in Converse County.
- 12. Federal agencies should use mechanisms to allow flexibility for grazing allotments or grazing lease agreements.
- 13. National Environmental Policy Act documents addressing the impacts from field development should also provide for mitigation to the affected ranchers for loss of grazing and disruption.
- 14. Livestock grazing management decisions shall be made based on the best available scientific information that is applicable to the rangeland resources in Converse County.



15. Site-specific reviews conducted with the permittee shall be used to determine the appropriate grazing suspension period post-fire.
16. Full site-specific economic and resource analysis of suspending grazing for allotment closures must be completed within one-year of closure.
17. Federal agencies should create adaptive grazing management guidelines that allow permittees to respond to changes in resource conditions. These shall include focused monitoring, triggers and responses, and alternative management.
18. The reduction of domestic livestock grazing animal unit months to provide additional forage for another species or strictly for conservation purposes is not supported.
19. Animal unit months (AUMs) on federal lands shall not be reduced unless a documented resource condition indicates a need for temporary reduction to improve condition. Any reduction shall include a plan to reinstate AUMs when the resource condition has been addressed.
20. The Bureau of Land Management and U.S. Forest Service should make timely processing of all term grazing permit renewals a priority in Converse County.
21. All federal and state land management agencies shall use the most current ecological site descriptions developed by the Natural Resource Conservation Service to create appropriate objectives for livestock and wildlife management.
22. Federal agencies shall collaboratively develop and implement rangeland monitoring programs in cooperation with the permittee using currently accepted scientifically based monitoring methods and return intervals utilizing properly trained rangeland personnel with an understanding of rangeland and its management to ensure proper collection and analysis of data.
23. Federal agencies should review and incorporate legal and credible data collected by a permittee, contractors or subcontractors of a permittee, qualified team, or local government for use in management decisions.
24. Federal agencies should consult and coordinate with Converse County and each permittee to ensure that overall rangeland health is being maintained through monitoring and implementation of well-designed livestock grazing management plans on all public land allotments.
25. Converse County opposes the conversion of livestock animal unit months (AUMs) to wildlife AUMs.

## 8.3 PREDATOR CONTROL

### 8.3.1 History, Custom, and Culture

Predatory wildlife is important to the ecology of an ecosystem. However, predators have negative impacts on livestock operations, developing communities, and other agriculture operations. For these reasons, it is important to properly manage predators to ensure safe communities and livestock, and healthy functioning ecosystems.

During the settlement of the western states, depredation was an issue across livestock operations. Predators were controlled on an individual basis until the early 1900s when stockgrowers began asking for government assistance. By the 1960s, with the release of the



Leopold Report, the importance of proper management of predators became known (deCalesta, n.d.). The common public mindset began to shift to the control of predators threatening stock operations and communities.

### **8.3.2 Resource Assessment and Legal Framework**

The Animal and Plant Health Inspection Service (APHIS) is located within the Department of Agriculture and provides a Wildlife Damage Program and a Pests and Diseases Program. The Wildlife Damage Program researches and develops wildlife damage management methods and provides resources to the public (APHIS, n.d.). The Wyoming State Legislature have established and updated predator control statutes in Title 11, Chapter 6 since the 1990s. Article 3 defines predatory animals within the state as any coyote, jackrabbit, porcupine, raccoon, red fox, skunk or stray cat; and gray wolves except where they are designated as trophy game animals. The statutes provide for general provisions, district boards, and the Wyoming State Animal Damage Management Board. The district for the County is the Converse County Predator Management District. Converse County also maintains an appointed Predator Management Board. Within the County, the Converse County Predator Control Board directly administers the predator control program.

There are a variety of predators and/or carnivores within the County that are not classified within the Wyoming predator statutes, those not classified under Title 11, Chapter 6 are often managed by WFGD. Predators are managed variably in accordance with their individual designations. Many common large predators are classified and managed as game animals, such as mountain lions and black bears, and some mid-sized predators are managed as furbearers, like the bobcat. Predators within the County may also be protected under ESA or MBTA, such as the raven and birds of prey. Predator population management is highly variable depending on the species and the population in question. An example of this is the gray wolf, which is managed as a predator except for the populations designated as game animals. For more information on wolf management across the state refer to WFGD's [Wyoming Gray Wolf Management Plan](#)<sup>43</sup>.

Predator control within the County affects the economic stability of the livestock industry and the sport hunting/fishing industry. Predator control has been used to protect the health and safety of the public by reducing human-wildlife conflict and the spread of diseases commonly carried by predators. The more common predatory animals in Converse County and the surrounding area include mountain lion and black bear (game animals), bobcat (furbearer), and birds of prey and corvids (variable classification per species); and coyote, fox, porcupine, skunk, and raccoon which are classified as predators. It is important to recognize that changes in wildlife population dynamics and management in surrounding areas are likely to influence wildlife populations and behavior within Converse County.

### **8.3.3 Predator Control Resource Management Objectives:**

- A. Predator populations are managed to maintain healthy ecological levels, while still prioritizing reducing the occurrence of livestock depredation and protecting the health and welfare of citizens of Converse County.



- B. Federal agencies coordinate with Converse County in the determination of any impact of management of predator species.
- C. Control of predatory animals is supported to reduce property damage and to protect wildlife and the local economy and tax base, including the viability of the agriculture community.

#### **8.3.4 Predator Control Priority Statements:**

1. Federal agencies should protect private lands bordering federal and state lands from predatory animals.
2. Federal agencies should retain and expand animal damage control plans for the protection of livestock and crops through the Converse County predator board and the control of disease-carrying animals.
3. Federal agencies should support predator control based on a balance between the best science available, economics, and logistics, evaluated by utilizing currently recognized methods of predator control that remain as viable options for predator control.
4. Federal agencies should support management of predator populations at their appropriate levels.
5. Predatory animals and predacious birds, which are disease-bearing vectors that are recognized as threats to public health should be controlled.
6. Coordination, communication, and cooperation between local, state, and federal health officials, along with veterinarians, weed and pest authorities, and predator boards is encouraged regarding pest and predator control action and regulations affecting Converse County.
7. Reintroduction and introduction plans for predators should provide for compensation to livestock operators for actual value of loss, including replacement cost, and direct and incidental expenses relating to the loss and prompt payment thereof.
8. Predator control measures are supported on all lands within Converse County.
9. Predator species as defined under state law shall be deterred from migrating or re-locating to areas that impact the health, safety, and welfare of the people.
10. When addressing a decline in sensitive species, predator control shall be employed prior to placing any restrictions on resource-based industries like livestock grazing. Federal agencies should coordinate with Converse County in the determination of any impact of management of predator species when related to the management of Endangered Species Act listed species or the use of Animal and Plant Health Inspection Service funds, as required by federal agency mandates. This includes impacts on the economy, culture, custom and safety of the residents of Converse County.
11. Wildlife management agencies should dedicate financial and personnel resources to predator management.
12. Federal agencies should support funding for predator control.



## 8.4 NOXIOUS WEEDS, INVASIVE SPECIES, AND PESTS

### 8.4.1 History, Custom, and Culture

Noxious and invasive species can be plants, animals, diseases or insects. Invasive species and pest management is defined as the ability to control species and pests that interfere with management objectives. An invasive species can be a native or non-native species that is occurring where it is not wanted or in unwanted numbers that may result in negative economic impacts. A noxious weed is any plant designated by federal, state, or local government officials as injurious to public health, agriculture, recreation, wildlife, or property. Once a weed is classified as noxious, authorities can implement quarantines and take other actions to contain or destroy the weed and limit its spread. (Weed Science Society of America, 2016)

Current control tactics include but are not limited to:

- Education (plant identification, life cycles, mapping infestations, etc.);
- Prevention (cleaning equipment, buying quality seed, rangeland management, early control, etc.);
- Mechanical & physical controls (burning, mowing, cultivation, rotating land uses, establishment of desirable competitive plants, etc.);
- Biological (grazing, parasites, pathogens, etc.);
- Chemical (herbicides, weed oils, plant growth regulators, etc.);
- Law enforcement (remedial requirements, hearings, etc.);
- Training (commercial applicator training and certification, etc.);
- Rodent control (minimize disease threats and control losses);
- Board of County Commissioners actions (emergency declarations, budgeting, public meetings, etc.) (Wyoming Weed and Pest Council, n.d.).

Converse County has traditionally practiced weed and pest control as a means to increase the productivity of the lands within the County and as a means of promoting the health, safety, and general welfare of the residents of the County. The Converse County Weed & Pest was established per the Wyoming Weed & Pest Control Act of 1973, which stated that all private, state, federal, and municipally owned lands are included in the District with the boundaries of the District the same as those of the County.

### 8.4.2 Resource Assessment and Legal Framework

The Wyoming Weed and Pest Act of 1973, as enacted by the legislature of Wyoming, created Weed and Pest Control Districts and the regulations which govern the districts. Within the Act, the composition of districts is defined at W.S. § 11-5-103:

*“All land within the boundaries of Wyoming including all Federal, State, private and municipally owned lands, is hereby included in the weed and pest districts within the County in which the land is located,”*



The act also specifically defines which weeds and pests are designated as weeds and pests in W.S. § 11-5-102. The Weed and Pest Act of 1973 in W.S. § 11-5-109 also spells out enforcement provisions which could result in heavy fines if persons are convicted.

*“A landowner who is responsible for an infestation and fails or refuses to perform the remedial requirements for the control of the weed or pest [...] may be fined. [...] Any person accused under this act is entitled to a trial by jury” (W.S. §11-5-109e).*

Programs are in place with the long-term goal of continuity and sustainability in managing Designated Weeds and Pests and Declared Species. All control tactics within the Integrated Pest Management toolbox are considered, within the limitations of an annual budget. Realizing in most cases eradication is not possible across a landscape, it still becomes the primary focus of new or insipient invasions. Paramount to that effort is the statewide concept of Early Detection Rapid Response and the Play-Clean-Go initiative.

Another State Statute, the Special Management Program (SMP), formally known as the Leafy Spurge Law, provides for a District to request an additional mill levy from the County Commissioners for the purpose of implementing an integrated management system on up to two undesirable plants, pests or combination thereof. However, leafy spurge shall receive priority in the program. Under this Statute, all state or federal agencies owning or administering lands which are untaxed for the purpose of this Act, shall contribute the total cost of the treatment program on those lands, obviously within the limitations of their respective budgets.

Funding for a long-term strategy implementing weed and pest control tactics has been lacking. Various state and federal agencies support weed and pest management by utilizing funds from discretionary or general fund sources. This only secures short-term funding for specific weed and pest infestations that generally last no more than one season.

The current federal noxious weeds list is maintained on the USDA Plants Database (NRCS, 2019).The declared Converse County noxious weeds are listed in the Wyoming *Weed and Pest Declared List by County* (Wyoming Weed and Pest Council, 2019).

The County recognizes Weed and Pest’s efforts in helping coordinate efforts with State and Federal Agencies for cheatgrass control due to its threat to grassland and sagebrush ecosystems, wildlife and livestock grazing and health. In addition to these plants, aquatic plants like hydrilla (*Hydril164erticillateata*), Eurasian watermilfoil (*Myriopyllum spicatum*), curly pondweed (*Potamogeton crispus*) and didymo (rock snot) (*Didymosphenia geminate*) are of concern. A number of animal species are also of concern such as aquatic invasive species like zebra and quagga mussels (*Dreissena polymorpha*, *Dreissena bugensis*), New Zealand mudsnail (*Potamopyrgus antipodarum*), Asian carp (*Cyprinus* spp.) and rusty crayfish (*Orconectes rusticus*). Almost all of these species can have a negative impact on irrigation structures if they become established. White pine blister rust (*Cronartium ribicola*), pine borers (*Dendroctonus* spp.), and spruce budworms (*Choristoneura* spp.) can also be problem invaders in the forested regions of the County.





### ***U.S. Forest Service***

The USFS has a [National Strategic Framework for Invasive Species Management](#)<sup>44</sup> that provides broad and consistent strategic direction across all USFS Regional Areas and agency programs. It also describes how the National and Regional Invasive Species Issue Teams will coordinate activities with the USFS and with Federal, State, and local partners. It lays out the framework for prevention, detection, control and management, and restoration and rehabilitation on USFS lands. (USFS, 2013)

### ***Bureau of Land Management***

The BLM has a ROD for [a Final Programmatic EIS for National Vegetation Treatments using Aminopyralid, Fluroxypyr, and Rimsulfuron on BLM lands](#)<sup>45</sup> in 2016 and tiers to the [2007 Final Programmatic EIS for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States](#)<sup>46</sup>. The BLM keeps the National Invasive Species Information Management System (NISIMS) database which provides a comprehensive tool for managers to use to standardize collection of invasive species and treatment data. The database can be found [here](#)<sup>47</sup>.

The BLM also recognizes the PlayCleanGo Campaign which is an educational outreach program with the goal to protect valuable natural resources while encouraging the public to enjoy the great outdoors. PlayCleanGo promotes awareness, understanding, and cooperation by provides a clear call to action to be informed, attentive, and accountable for stopping the spread of all invasive species. (NAISMA, n.d.)

### **8.4.3 Noxious Weeds, Invasive Species, and Pests Resource Management Objectives:**

- A. Noxious weeds, invasive species, and pests (plants and animals) are managed to maintain healthy ecological levels using best management practices.
- B. Federal agency projects include actions for the prevention, early identification, detection, and aggressive treatments for noxious and invasive species and pests throughout Converse County.
- C. Federal agencies coordinate and communicate all invasive, noxious, pest, or weed management actions and plans with the Converse County Weed and Pest.

### **8.4.4 Noxious Weeds, Invasive Species, and Pests Priority Statements:**

- 1. Converse County encourages the cooperation of local, state, and federal governments for procurement of additional funding for Converse County Weed and Pest for the control of weeds on all lands in the County.
- 2. Federal agencies should support Converse County Weed and Pest District's current and future efforts to identify the location of all designated or declared noxious weeds and initiate management and/or control.
- 3. Federal agencies should support cooperative agreements to assure the protection of all lands from noxious weed invasion or occupation.
- 4. Federal agencies should communicate, coordinate, and consult with local and state governments on education about the control of potential invasive species.





5. Federal agencies should recognize the State of Wyoming Noxious Weed Act (Wyo. Stat. §11-5-102(a)(xii)) and assist Converse County Weed and Pest in monitoring efforts of invasive plant species and noxious weed infestations throughout the County.
6. Converse County encourages protection of private property bordering federal and state lands from noxious weeds, invasive species, and pests, including the use of preventative management and controls, such as quarter mile buffer zones along borders on federal and state lands.
7. Converse County supports and encourages programs to mitigate prairie dogs; and encourages state and federal agencies to adopt policies to allow for prairie dog control as good neighbors and responsible stewards of the lands they are entrusted to manage.
8. Federal agencies should work closely with local, state, and federal health agencies to manage and monitor zoonotic and vector-borne diseases, including mosquitoes that transmit viruses, such as West Nile.
9. Federal agencies should allow Converse County Weed and Pest access to and across public lands as may be necessary to carry out active control measures on both public and private lands.
10. Federal agencies should evaluate prescribed burns and capitalize on wildfires as an opportunity to control weed species and enhance rangeland health to support and expand multiple use.
11. Federal agencies should find ways to utilize prescriptive grazing techniques to control or manage noxious or invasive plant species.
12. Federal agencies should consider bio-agents for invasives species control specific to the targeted weed.
13. Federal agencies should elevate the awareness and priority of controlling any new or existing infestations of Cheatgrass, Ventenata, and/or Medusahead rye in Converse County.
14. Converse County supports habitat enhancement projects that have a defined and funded weed control and monitoring plan over the anticipated life of the enhancement.
15. Converse County supports the use of pesticides.
16. Federal agency processes should consider adaptive or new control techniques and pesticides.
17. Federal agencies should implement weed control practices that include mapping as an integrated management tool.
18. Federal agencies should work with partners to prevent and manage aquatic nuisance species, although not listed Designated or Declared, (i.e., zebra mussels, quagga mussels) on all waters within Converse County.
19. Converse County supports the Play, Clean, Go initiative and other education/awareness programs for public and private land users in weed identifications and understanding vectors of weed spread.
20. Federal agencies should use aerial equipment such as drones, helicopters, or fixed wing as a critical use for weed monitoring and control.
21. Federal agencies should support ongoing research and experimental options for the management of invasive, noxious species, and pests.
22. Converse County supports use of rodenticide such as Rozol for prairie dog control.



23. Federal agencies should recognize and support the State of Wyoming designation of black-tailed prairie dogs as being classified as an agricultural pest [Wyoming Statute 11-5-102 (a)(xii)] and should employ the appropriate management prescriptions to be consistent with this designation.
24. Federal and state land management agencies should control prairie dogs on federal lands to prevent range degradation, reduction of available forage to lessees, and expansion of prairie dogs from federal lands to state and private lands.
25. Require an adequate buffer zone between prairie dog towns on State and Federal lands and private lands to ensure the health, safety, and economic protection of neighboring private landowners.
26. Federal agencies should monitor prairie dog colonies for evidence of plague and other communicable diseases. If any evidence is noted, it should be reported to the Wyoming Department of Public Health.
27. Converse County opposes any translocation and/or introduction of prairie dogs within the county.



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## **ACRONYMS**

ACEC- Areas of Critical Environmental Concern

APHIS – Animal and Plant Health Inspection Service

ARPA – Archeological Resources Protection Act

AUM- Animal Unit Month

BLM- Bureau of Land Management

BMP-Best Management Practice

BOR- Bureau of Reclamation

CAA- 1970 Clean Air Act

CCA – Candidate Conservation Agreements

CCAA – Candidate Conservation Agreements with Assurances

CDC – Center for Disease Control

CEQ- Council on Environmental Quality

CLG – Certified Local Government

CRP – Conservation Reserve Program

CWA – Clean Water Act

DEQ- Department of Environmental Quality

DOD- Department of Defense

EA- Environmental Assessment

EIS- Environmental Impact Statement

ENSO- El Niño-Southern Oscillation

EPA- Environmental Protection Agency

ERFO – Emergency Relief for Federally Owned Roads

ESA- 1973 Endangered Species Act



FAST – Fixing America’s Surface Transportation act

FDQA – Federal Data Quality Act

FHWA- Federal Highway Administration

FLAP – Federal Lands Access Program

FLMPA- 1976 Federal Land Management and Policy Act

FLTP – Federal Lands Transportation Program

FSA – Farm Service Agency

FUDs – Formerly Used Defense Sites

GHG- Greenhouse Gas

GLO - General Lands Office

GPC—Groundwater Pollution Control

IMR – Intermountain Range

IPCC- International Governmental Panel on Climate Change

LUP- Land Use Plan

LWCF- Land and Water Conservation Fund Act of 1964

MOA - Memorandum of Agreement

MOU - Memorandum of Understanding

MUSY- 1960 Multiple Use Sustained Yield Act

NAAQS – National Ambient Air Quality Standards

NAO- North Atlantic Oscillation

NEPA- 1973 National Environmental Policy Act

NFHL – National Flood Hazard Layer

NFIP – National Flood Insurance Program

NFMA- 1976 National Forest Management Act





NFS – National Forest System

NNDSS - National Notifiable Diseases Surveillance System

NPS- National Park Service

NRCS – Natural Resource Conservation Service

NRMP- Natural Resource Management Plan

NSFLTP – Nationally Significant Federal Lands and Tribal Projects Program

NSS – Native Species Status

NWR – National Wildlife Refuge

OAA-1897 Organic Administration Act

OHV – Off-Highway Vehicle

OMB - Office of Management and Budget

PDO -Pacific Decadal Oscillation

PFC—Proper Functioning Condition

PILT- Payments In Lieu of Taxes

RTP – Recreational Trails Program

SWAP – State Wildlife Action Plan

UNEP- United Nations Environment Programme

USACE – US Army Corps of Engineers

USFS- United States Forest Service

USFWS – US Fish and Wildlife Service

USGS- United States Geological Survey

USRS- United States Reclamation Service

WDEQ – Wyoming Department of Environmental Quality

WEQA – Wyoming Environmental Quality Act



WGFD – Wyoming Game and Fish Department  
WMO- World Meteorological Organization  
WOGCC – Wyoming Oil and Gas Conservation Commission  
WQD—Wyoming Quality Division  
WSA – Wilderness Study Area  
WSFR – Wildlife and Sport-Fish Restoration  
WWDC – Wyoming Water Development Commission  
WWDO – Wyoming Water Development Office  
WYDEQ- Wyoming Department of Environmental Quality  
WY G&F- Wyoming Game and Fish Department  
WYDOT- Wyoming Department of Transportation



## APPENDIX A: WEBSITE LINKS

1. <https://conversecounty.org/>
2. [https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter\\_blpolicymanual1283.pdf](https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blpolicymanual1283.pdf)
3. <https://www.usbr.gov/main/goj/>
4. <https://www.epa.gov/quality/about-epas-quality-program>
5. [https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER\\_25-1-110.pdf](https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_25-1-110.pdf)
6. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5409879.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5409879.pdf)
7. <https://www.fws.gov/stand/>
8. <https://deq.wyoming.gov/>
9. <https://wyoshpo.wyo.gov/index.php/nr-by-county-test/9-carbon-county?limitstart=0>
10. <https://www.fs.usda.gov/science-technology/geology/paleontology>
11. <https://www.usbr.gov/cultural/>
12. <https://www.fws.gov/historicPreservation/crp/index.html>
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## APPENDIX B: STEERING COMMITTEE MEMBERS

Member	Affiliation
Jim Willox	County Commissioner
Rick Grant	County Commissioner
Mike Colling	County Commissioner
Robert Short	County Commissioner
Tony Lehner	County Commissioner
Michelle Huntington	Converse County Conservation District
Jason Wilkinson	Converse County Road and Bridge Department
Tom Reed	Converse County Fire Warden
Willow Bish	Wyoming Game and Fish
Jess Butler	Converse County Weed and Pest
Jonathon Teichart	City of Douglas
Holly Richardson	Converse County Planning
Kim Gullickson	Fire Wise and State Forestry
Jeff Boner	Converse County Predator Control Board



## APPENDIX C: PUBLIC COMMENT

Received From	Comment	Commissioners Response
L. G.	There was a brief mention of other types of alternative energy besides wind and solar. We asked for list of others because individual copies of the document were not available. Y2 primary response was nuclear, hydro, and hydrocarbon.	Verify these are in the document. Identify pump storage and discuss briefly in document in appropriate section (water resources).
L. G.	Why is a snake used for predator control symbol? Snakes are not the predators that residents of Wyoming are worried about. Ranchers and pet owners face danger from larger, four legged predators which are increasingly protected by agencies influenced by people who reside in large population centers. These people, who want to control our lives in rural Wyoming, live in areas far distant from large predators like wolves, mountain lions, bear, coyotes, and fox, which feed on our livestock and pets. Environmental groups and people who do not live in Wyoming should not have a say in what happens in Wyoming or how to manage wildlife here.	Comment received.
L. G.	There are different types of Environmental Documents used for NEPA: Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements. It was not clear which way the County and Y2 chose to go or why. We need this information to properly address the Plan.	Currently doing as necessary and appropriate.



<p>L. G.</p>	<p><i>Wild and Scenic River Act</i> (W&amp;SRA) designation was brought up as needing to be discussed and was initially rejected by the moderator. Discussion followed that Wild and Scenic Rivers were included briefly in the document. In our opinion, this issue needs to be widely expanded. Our experience is that Congress can and will propose this designation without support of the local populace. Once the designation is in place, Federal Agencies will regulate public and private property that extends to one-quarter mile out “<i>from the ordinary high water mark on each side of the river</i>” and farther for scenic values (Section 3 (b), pg. 3 of <i>The Act</i>). Even though there are no such designations in the County at this time, the Plan should state that there may be no designation in the future. The Federal Government has to date taken 6,000 acres of private land adjacent to W&amp;SRA through <i>condemnation of easement</i>. Along the St. Croix River W&amp;SR in Minnesota and Wisconsin the Federal government bulldozed and burned dozens of homes and other structures on private property to ‘protect’ wild and scenic values. Some members of that community lost their houses and land and moved from there to the Mimbres River area in NM. They then moved on to Arizona when portions of the Mimbres River were proposed for W&amp;SR designation.</p> <p>Per Wild and Scenic River Act expert, NM Catron County Commissioner Haydn Forward (575-539-2039), the government may regulate all land – private or public - bordering stream boundaries. Once designated, the area both public and private around Wild and Scenic Rivers will then be regulated by the Federal Government and State Government. This is essentially a taking. Also, if there are any designated Wild and Scenic River segments outside Converse County that are either ‘below or above,’ meaning downstream or upstream (Section 7 (a) and (b)), from any connected stream or river that touches or enters Converse County, private land within this county may and will be regulated by Federal Government agencies. There is no defined limit to how many miles the verbiage ‘above and below’ may imply. In short, private landowners have no protection against federal government regulations, except perhaps through local government planning. There is no limit to the avarice of federal agencies who operate in conjunction with environmentalist entities.</p> <p>Per Commissioner Forward, the crux to areas below or above designated W&amp;SRA rivers is that the Federal Government is able to stop you from using water from the river or creek – either to irrigate, water livestock, or for any other use. Water is a critical commodity in the West, loss of water rights will shut down businesses, ranches, and farms that have operated for generations in Converse County. Also, if you are receiving money from an NRCS Program to operate your agricultural business, those funds will not be available any longer.</p> <p>Production on privately-owned land far away from boundaries of designated rivers may also be regulated under the ‘Scenic’ portion of the W&amp;SRA. Section 16 states, “As used in this Act, the term – (c) “Scenic easement” means the right to control the use of land (including the air space above such land) within the authorized boundaries of a component of the wild and scenic rivers system, for the purpose of protecting the natural qualities of a designated wild, scenic or recreational river area, . . . .” Under this definition, if timber is being cut, minerals or gas is being mined, or cattle are being grazed miles distant on a hillside and these activities can be viewed from the river, the enjoyment of the viewer may be destroyed and therefore the activity must be eliminated. Though there is currently some language in the Act regarding differences between prior and future use, we must anticipate that environmentalists are generally not fond of any type of agricultural, timber, or mining production and will seek to terminate private property rights in favor of their agenda.</p>	<p>Comment addressed in 3.3.4 priority statement #4 and #5. Delete phone number in comment.</p>
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L. G.	Another private land 'taking' can be committed by use of the National Historic Trails System Act of 1968 (NHTSA). Most of the above-mentioned comments on the dangers that the W&SRA presents to private landowners may also pertain to the NHTSA. We suggest that no land in Converse County be designated as a National Historic Trail. There is a lot of history to be enjoyed in Wyoming. Private landowners have not generally restricted access to tourists to visit historic sites. Let us not provide a legislative loophole of this sort to be used by entities with a liberal agenda to restrict use of land in our County.	Comment addressed. County does not approve new trails unless approved and coordinated with the Converse County.
L. G.	There was good discussion on 30 X 30 and its potential ramifications. The federal and state governments already own and control more land in Wyoming than is beneficial to state residents. When government seeks to purchase land (please note that this land is usually highly desirable for having water, timber, minerals, and views), they are in competition with private citizens. Citizens should not have to compete against government to own property in Wyoming. Government competition will raise property prices above its value, which therefore also raises property taxes. The county plan should include verbiage to prohibit federal government from purchasing private land and from receiving donations of private land from environmentalist groups.	Plan addresses that County does not support 30x30. County does not have authority to regulate on private land. County wants to stay engaged in it.
L. G.	We also recommend that Converse County's Natural Resource Plan stipulate that foreign entities may not purchase land within the county unless approved by the County Commissioners and neighboring landowners. There is a growing danger of land being purchased, especially large tracts, by foreign countries who are enemies of the United States. Think about it – the current and possibly the future President of the U.S. is not/may not be interested in protecting U.S. Citizens, especially in Wyoming.	County does not have ability to prohibit anyone from purchasing private land and this plan applies to federal agency interactions with Converse County.
Frank E.	Dry Fork of Cheyenne River is on the western edge and makes a swing around. It is called Dry Fork until confluence with Antelope Creek and then heads to northwest portion of County.	Check changes.
Frank E.	Add history on Glenrock and Parkerton, multiple buildings of Bill Store, Dry Creek school, community of Orin Junction on HWY 20 off I25 in SE part of County, add Parkerton onto map.	Address
Frank E.	On Objective B would like to add this wording to the end of the statement "and adjacent or affected landowners."	Add - consultation with adjacent or affected landowners
Frank E.	Add fires in 2019, Johnson Fire 3,500 on F. E. In 2020 Stevick Fire, took a lot of resources	Add
Frank E.	On Priority Statement 1, should the correct word be ownership instead of land tenure adjustments?	Change to ownership
Frank E.	Would like to add to policy statement 4- The owner voluntarily consents - reason for volunteer is because gov can make it very inconv.	Change to proposed wording
Frank E.	Fix duplicate geology map.	Address
Frank E.	On the soils map would like to have legend listed numerically to help find soils easier.	Address



Frank E.	Policy Statement 6 -Word should be persons instead of permittees as others can be out there doing that	Keep with permittee
Frank E.	Double check the quote of the number of records and mines listed in Converse County.	Check this.
Frank E.	Under the Split Estate section, the last sentence in the first paragraph is awkward and the 1916 Stockgrazing and Homestead Acts need to be cited.	Add in citations to Acts to clear this up
Frank E.	Second paragraph under Split Estate the word devised need to have a different word. These areas need to be allowed to take out of public domain.	Change word to distributed
Frank E.	Under 8th bullet in Split Estate Section - Recent activity - Frank has had leases on 6 state pieces but recently the state has decided to allow saline water disposal pits and talk about solar panels on state lands that is leased for grazing. Either of those activities prevents grazing, grazing is a historical use and should have some preference. New key provisions that need to be added that the state needs to review. Prevents enjoyment of state lands.	Check in alternative energy, encourage that those projects should consider prior existing uses (check if this is in there). This would be outside scope of plan because of state land.
Frank E.	Regarding bonds under split estate section - BLM should ensure that amount of current bonds is enough for reclamation. Need to consider inflation	Address in document and take into consideration. Bonding requirements should not be less than salvage.
Frank E.	Citations need fixed.	Address
Frank E.	Under locatable minerals - clarify these more as to what they are in regards to uncommon varieties of sand, gravel, and dimension stone.	Add clarifying information
Frank E.	Under Coal Section - Add more explanation - Due largely to customer utilities converting to natural gas has fueled turbines and due also to increasing availabilities of solar and wind generated power.	Add some more information
Frank E.	Figure 8 - check what Fis Mat is from legend and clarify.	Address
Frank E.	Under Objective B - Need a stronger word than appropriate. Had experience and they do a sloppy job and they need to be held to a higher standard.	Change to "as practical"
Frank E.	Need to fix gray space on bottom of Figure 9.	Address
Frank E.	Priority statement #14 - would like to strengthen to "are encouraged"	Change to "are"
Frank E.	Priority statement #15 - would like to use the word must to strengthen statement	Change to "shall"
Frank E.	Priority statements 19 and 22 make sure the documents mentioned link.	Check and address



Frank E.	Priority statement #7, would like to see strengthened and to use the word "are" rather than "should be encouraged"	Change to "are"
Frank E.	Priority statement #9 would like to see wording as "are strongly recommended" rather than "should be required" as this should be up to the decision of the landowner.	Leave as is
Frank E.	Add - Provision must be made for proper reclamation for alternative energy sites as well as the disposal "beyond useful life" equipment	Check if this is in the document and if not add it.
Frank E.	Add discussion on Natrium reactors but check with Commissioners on adding this first.	Double check and add in if not there. Page 93
Frank E.	Objective A would like to see statement more forceful can wording be "shall be done"	Leave as is
Frank E.	Objective B would like to strike the word disproportionately	Leave as is
Frank E.	Priority 6 would like to strike should and insert "must"	Change to "shall"
Frank E.	Frank helped Bree clarify some of the tributaries and what flows into where.	Addressed
Frank E.	Objective C - needs better defined and would like to change to "shall"	Leave as is
Frank E.	Priority 6 - exaction needs to be defined.	Add definition into document (Conner will write it up)
Frank E.	Priority #10 - needs worded a little better to help with clarity.	Rewrite for better clarity. Flip oppose to front of sentence.
Frank E.	Under sage-grouse clarify that the last statement is in Wyoming or the Western U.S. for the nearly 1/2 habitat managed by BLM.	Address
Frank E.	Check that the piping plover should be the mountain plover, check this in other places in the document too	Check and address
Frank E.	Priority #1 - needs to be stronger can we use the word "must"	Change to "shall" change in #3 too
Frank E.	Priority #2 - Should this be taken out?	Leave in
Frank E.	Priority #6 - change should to shall	Leave as is
Frank E.	Priority #7 - should be a stronger statement for last sentence.	Change promises acknowledge and abide by agreements
Frank E.	Priority #8 change should to shall	Change to shall



Frank E.	Priority #11 - needs better clarification	Change to "shall"
Frank E.	Priority # 13 - Change should to shall	Leave as is
Frank E.	Priority #16 - change should to shall	Change to "shall"
Frank E.	Spell out WFRHBA	Address
Frank E.	Second paragraph - better clarify first sentence.	Address
Frank E.	Law Enforcement - in WY Constitution the dually elected sheriff is supreme enforcement of the County. Check this and put in document.	Leave as written
Frank E.	Priority #2 - double check if there is an MOU with BLM.	Double check and reword; no MOU with BLM
Frank E.	Priroity #9 - Grazing fees in national forest in Laramie Range	Clarify this
Frank E.	Priority #11 - change should to shall	Change to "shall"
Frank E.	Objective B - Include sound science.	Leave as is



**APPENDIX D: CONVERSE COUNTY 2018 SOCIOECONOMIC STUDY**



**Attachment #19**  
**Johnson County Natural Resource Management Plan dated December 1, 2020**



DECEMBER 1, 2020

# Johnson County Natural Resource Management Plan



Natural Resource Management Plan  
Y2 Consultants, LLC & Falen Law Offices



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**CONTENTS**

**LIST OF FIGURES ..... III**

**LIST OF TABLES ..... IV**

**ACRONYMS ..... V**

**INTRODUCTION ..... 1**

    PURPOSE ..... 1

    PLAN ORGANIZATION ..... 6

    PROCESS ..... 6

    AMENDING THE NRMP ..... 7

    COUNTY EXPECTATIONS FOR NATURAL RESOURCE MANAGEMENT PLAN ..... 7

**CHAPTER 1: CUSTOM AND CULTURE ..... 9**

    1.1 COUNTY INTRODUCTION AND OVERVIEW ..... 9

**CHAPTER 2: LAND USE ..... 13**

    2.1 LAND USE ..... 13

    2.2 TRANSPORTATION AND LAND ACCESS ..... 17

    2.3 SPECIAL DESIGNATION AND MANAGEMENT AREAS..... 22

    2.4 WILDFIRE SUPPRESSION, FUELS MANAGEMENT, FIRE REHABILITATION AND COMMUNITY WILDFIRE  
    PLANNING ..... 31

    2.5 FOREST MANAGEMENT..... 36

    2.6 LAND EXCHANGES..... 38

**CHAPTER 3: GEOLOGY, MINING, AND AIR ..... 41**

    3.1 GEOLOGY ..... 41

    3.2 SOILS..... 43

    3.3 MINING & MINERAL RESOURCES..... 45

    3.4 ENERGY RESOURCES..... 50

    3.5 AIR QUALITY..... 56

    3.6 CLIMATE CHANGE ..... 58

**CHAPTER 4: WATER RESOURCES ..... 60**

    4.1 IRRIGATION AND RELATED INFRASTRUCTURE ..... 62

    4.2 DAMS AND RESERVOIRS ..... 63

    4.3 WATER RIGHTS ..... 64

    4.4 WATER QUALITY ..... 66

    4.5 FLOOD PLAINS..... 70

    4.6 RIVERS AND STREAMS..... 71

    4.7 WETLANDS AND RIPARIAN AREAS ..... 73



<b>CHAPTER 5: WILDLIFE AND FISHERIES .....</b>	<b>75</b>
5.1 THREATENED AND ENDANGERED SPECIES .....	77
5.2 GENERAL WILDLIFE AND SENSITIVE SPECIES .....	80
5.3 FISHERIES .....	92
5.4 WILD HORSE, BURROS AND ESTRAY LIVESTOCK .....	94
<b>CHAPTER 6: ECONOMICS &amp; SOCIETY .....</b>	<b>97</b>
6.1 TOURISM AND RECREATION ON FEDERAL LANDS .....	97
6.2 LAW ENFORCEMENT.....	99
6.3 CULTURAL, HISTORICAL, & PALEONTOLOGICAL RESOURCES .....	100
6.4 ECONOMIC AND SOCIOECONOMIC CONSIDERATIONS .....	105
<b>CHAPTER 7: AGRICULTURE.....</b>	<b>109</b>
7.1 AGRICULTURAL PRODUCTION .....	109
7.2 LIVESTOCK AND GRAZING .....	110
7.3 PREDATOR CONTROL & LIVESTOCK PREDATION .....	117
7.4 NOXIOUS WEEDS AND INVASIVE SPECIES.....	118
<b>REFERENCES .....</b>	<b>123</b>
<b>APPENDIX A: TABLES .....</b>	<b>132</b>
<b>APPENDIX B: WEBSITE LINKS IN DOCUMENT .....</b>	<b>150</b>
<b>APPENDIX C: STEERING COMMITTEE MEMBERS .....</b>	<b>152</b>
<b>APPENDIX D: PUBLIC COMMENTS RECEIVED .....</b>	<b>153</b>



## LIST OF FIGURES

<i>Figure 1. Johnson County Natural Resource Management Plan Area.</i>	12
<i>Figure 2. Johnson County Surface Ownership Map.</i>	16
<i>Figure 3. Special Designation Areas within Johnson County.</i>	30
<i>Figure 4. Fire History of Johnson County.</i>	35
<i>Figure 5. Johnson County Geologic Formations.</i>	42
<i>Figure 9. Soils Mapped for Johnson County.</i>	44
<i>Figure 6. Oil and Gas Production in Johnson County from 1980 to 2020</i>	51
<i>Figure 7: State of Wyoming Oil Production Trends (1978-2018). (Oil Graph, n.d.)</i>	51
<i>Figure 8: State of Wyoming Gas Production Trends (1978-2018). (State Gas Production Graph, n.d.)</i>	52
<i>Figure 10. Johnson County Watersheds.</i>	61
<i>Figure 11. Pronghorn Seasonal Range in Johnson County.</i>	86
<i>Figure 12. Mule Deer Seasonal Range in Johnson County.</i>	87
<i>Figure 13. Elk Seasonal Range in Johnson County.</i>	88
<i>Figure 14. White-tail Deer Seasonal Range in Johnson County.</i>	89
<i>Figure 15. Moose Seasonal Range in Johnson County.</i>	90
<i>Figure 16. Greater Sage-Grouse Mapped Core Area within Johnson County.</i>	91
<i>Figure 17. Johnson County Native and Introduced Fish Species by Watershed. (Johnson County Commissioners &amp; Johnson County Planning and Zoning Commission, 2005)</i>	93
<i>Figure 18. Johnson County Grazing Allotments.</i>	116



## LIST OF TABLES

<i>Table 1. SRMAs and ERMAs Located within Johnson County.</i> .....	23
<i>Table 2. Fire Occurrences in Excess of 100 acres in Johnson County from 2003 to 2020.</i> .....	32
<i>Table 3. Powder/Tongue River Basin Major Reservoirs and Holding Capacities. (HKM Engineering Inc. et al., 2002)</i> .....	64
<i>Table 4. Lists 303(d) Water Segments within Johnson County. (WDEQ &amp; WQD, 2018)</i> .....	68
<i>Table 5: Wyoming Tier 1 Species of Conservation Priority. (Wyoming Game and Fish Department, 2017)</i> .....	132
<i>Table 6: Wyoming Tier 2 Species of Conservation Priority. (Wyoming Game and Fish Department, 2017)</i> .....	133
<i>Table 7: Wyoming Tier 3 Species of Conservation Priority. (Wyoming Game and Fish Department, 2017)</i> .....	137
<i>Table 8: BLM’s Sensitive Species List for Wyoming. (Bureau of Land Management, 2010)</i> .....	139
<i>Table 9: Management Indicator Species/Focal Species for the Bighorn National Forest. (U.S. Forest Service, 2010)</i> .....	141
<i>Table 10: Threatened, Endangered, Proposed, Candidate and Forest Service Region 2 Sensitive Species for the Bighorn National Forest. (U.S. Forest Service, 2010)</i> .....	142
<i>Table 11: Regional Forester’s Sensitive Animal Species List for the Rocky Mountain Region. (U.S. Forest Service, 2017)</i> .....	144
<i>Table 12: Regional Forester’s Sensitive Plant Species List for the Rocky Mountain Region. (U.S. Forest Service, 2017)</i> .....	147



## **ACRONYMS**

ACEC- Areas of Critical Environmental Concern

ACHP – Advisory Council on Historic Preservation

AF – Acre-feet

AML – Appropriate Management Level

APHIS – Animal and Plant Health Inspection Service

ARMPA – Approve Resource Management Plan Amendment

ARPA – Archeological Resources Protection Act

AUM- Animal Unit Month

BGEPA – Bald and Golden Eagle Protection Act

BHMC – Bighorn Mountain Coalition

BLM- Bureau of Land Management

BMP-Best Management Practice

BOCC-Board of County Commissioners

BW-HMA – Buffalo Municipal Watershed Wildfire Hazard Mitigation Assessment

CAA- 1970 Clean Air Act

CAP-SSE-- Community Assistance Program – State Support Services

CCA – Candidate Conservation Agreements

CCAA – Candidate Conservation Agreements with Assurances

CCCD-Clear Creek Conservation District

CDC – Center for Disease Control

CEQ- Council on Environmental Quality

CLG – Certified Local Government

CRP – Conservation Reserve Program

CWA – Clean Water Act



CWD – Chronic Wasting Disease

DEQ- Department of Environmental Quality

DOD- Department of Defense

EA- Environmental Assessment

ECOS – Environmental Conservation Online System

EIS- Environmental Impact Statement

ENSO- El Niño-Southern Oscillation

EPA- Environmental Protection Agency

ERFO – Emergency Relief for Federally Owned Roads

ERMA-Extensive Recreation Management Area

ESA - Endangered Species Act 1973

FAR – Functioning-at-risk

FAST – Fixing America’s Surface Transportation Act

FDQA – Federal Data Quality Act

FEMA – Federal Emergency Management Act

FERC – Federal Energy Regulatory Commission

FHWA- Federal Highway Administration

FLAP – Federal Lands Access Program

FLH-Federal Lands Highway Division

FLMPA- Federal Land Management and Policy Act 1976

FLTP – Federal Lands Transportation Program

FSA – Farm Service Agency

GHG- Greenhouse Gas

GLO - General Lands Office





GPC—Groundwater Pollution Control

GPM – Gallons per Minute

HA – Herd Area

HMA – Herd Management Area

IMR – Intermountain Range

IRA – Inventoried Roadless Areas

IPCC- International Governmental Panel on Climate Change

ISR – In-situ Recovery

JCCLUP – Johnson County Comprehensive Land Use Plan

JCCWP - Johnson County Community Wildfire Protection Plan

JCSAR – Johnson County Search & Rescue

LNG – Liquefied Natural Gas

LUP- Land Use Plan

LUPAs – Land Use Plan Amendments

LRTPs-Long Range Transportation Plans

LWC – Lands with Wilderness Characteristics

LWCF- Land and Water Conservation Fund Act of 1964

MBTA – Migratory Bird Treaty Act

MOA - Memorandum of Agreement

MOU - Memorandum of Understanding

MUSY-Multiple Use Sustained Yield Act 1960

NAAQS – National Ambient Air Quality Standards

NAISMA - North American Invasive Species Management Association

NAO- North Atlantic Oscillation



NEPA- National Environmental Policy Act 1973

NF – Non-functioning

NFHL – National Flood Hazard Layer

NFIP – National Flood Insurance Program

NFMA- National Forest Management Act 1976

NFS – National Forest System

NGL – Natural Gas Liquid

NHPA – National Historic Preservation Act

NMFS – National Marine Fisheries Service

NNDSS - National Notifiable Diseases Surveillance System

NPS- National Park Service

NRCS – Natural Resource Conservation Service

NRHP – National Register of Historic Places

NRMP- Natural Resource Management Plan

NSFLTP – Nationally Significant Federal Lands and Tribal Projects Program

NSS – Native Species Status

NWR – National Wildlife Refuge

OAA-Organic Administration Act 1897

OHV – Off-Highway Vehicle

OMB - Office of Management and Budget

PDO -Pacific Decadal Oscillation

PFC—Proper Functioning Condition

PILT- Payments In Lieu of Taxes

PRPA – Paleontological Resource Preservation Act



RMP-Resource Management Plan  
RNS-Research Natural Areas  
R.S. 2477 – Revised Statute 2477  
RTP – Recreational Trails Program  
SHPO – State Historic Preservation Act  
SIPs – State Implementation Plans  
SMP – Special Management Program  
SRMAs-Special Recreation Management Areas  
SWAP – State Wildlife Action Plan  
TCP – Traditional Cultural Properties  
TGA - Taylor Grazing Act 1934  
THPO – Tribal Historic Preservation Officer  
USACE – United States Army Corps of Engineers  
USFS- United States Forest Service  
USFWS – United State Fish and Wildlife Service  
USGS- United State Geological Survey  
USRS- United Stated Reclamation Service  
W&WP – Water & Wastewater Program  
WDEQ – Wyoming Department of Environmental Quality  
WEQA – Wyoming Environmental Quality Act  
WFRHBA – Wild Free Ranging Horses and Burros Act  
WGFD – Wyoming Game and Fish Department  
WHMA – Wildlife Habitat Management Area  
WIZ – Water Influence Zone



WOGCC – Wyoming Oil and Gas Conservation Commission

WPLI – Wyoming Public Lands Initiative

WQD—Wyoming Quality Division

WSA – Wilderness Study Area

WWDO – Wyoming Water Development Office

WYDOT- Wyoming Department of Transportation



# INTRODUCTION

## PURPOSE

### Natural Resource Management Plan

A Natural Resource Management Plan (NRMP or plan) is a document prepared and adopted by a local government that federal agencies are required to review and consider when making decisions that may affect the local area. Locally elected governments and elected officials have far ranging and important responsibilities to their constituents, described by state statute as protecting their “health, safety and welfare” (Wyo. Stat. §§ 18-3-504(v); 18-5-208(a)). That responsibility includes specifically interacting with federal agencies on all federal issues impacting the local community and counties. Rural counties’ socioeconomic well-being, health, safety, and culture is impacted by management of the surrounding federal and public lands. To give locally elected governments the strongest voice possible during “government-to-government” interactions, local governments can formally adopt “local land use plans” (LUPs) or NRMPs. These plans establish policy regarding the use and management of federal lands in local governments’ jurisdiction and can influence the development and implementation of federal policies, programs, and decision-making that affect local communities. NRMPs are intended to help protect the local citizens’ use of, and access to, federally administered lands and resources and to ensure the socioeconomic wellbeing, culture, and customs of a local community are adequately considered in federal decisions (Budd-Falen, 2018).

This county NRMP serves as a basis for communicating and coordinating with the federal government and its agencies on land and natural resource management and use. Counties are particularly well-suited to understand the impacts of federal land management decisions on the local economy, custom, and culture. Under Wyoming statute, a County is deemed to have special expertise on all subject matters for which it has statutory responsibility including, but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture, and socio-economic viability of a County (Wyo. Statute 18-5-208(a)).

These local LUPs do not regulate the use of private lands and do not constitute zoning. LUPs are generally associated with the planning document that counties use to determine zoning on private lands. A NRMP is a separate type of land use plan prepared by rural counties and conservation districts, containing policies relating to the management of federal and public land in the County and reflecting the local government’s position on federal decisions concerning those lands (Budd-Falen, 2018).

Local governments do not have jurisdiction over the federal government or federal lands. NRMPs cannot require federal agencies to take specific actions. However, federal agencies and departments are mandated by various federal statutes to engage local governments during decision-making processes on federal plans, policies, and programs that will impact the management of land and natural resources within a community and ultimately affect the local tax base and lives of local citizens. Federal agencies are required to coordinate and consult with local governments and give meaningful consideration to policies asserted in written plans



prepared and adopted by local governments concerning the management of federal lands in their area (Budd-Falen, 2018).

### **Statutory Requirements and Legal Framework**

Federal agencies are required to identify and analyze the impacts to local economies and community cultures when making decisions. NRMPs outline the present economic and cultural conditions and desired future conditions of a county and demonstrate how those conditions are tied to activities on adjoining federal lands. The plan establishes the local government’s preferred policies for the planned use, management, protection, and preservation of natural resources on the federal and public lands within its jurisdiction. The goal of a NRMP is to protect private property, the local tax base, and local custom and culture. An adopted NRMP is a critical tool that allows a local government to have a substantive impact on federal decisions, plans, policies, and programs. A written plan can play a key role in the success of a local government engaging the federal government (Budd-Falen, 2018).

Required engagement between federal agencies and local governments takes the form of “consistency review” under the National Environmental Policy Act (NEPA) and the Federal Lands Policy and Management Act (FLPMA), the requirement for “coordination” under both FLPMA and the National Forest Management Act (NFMA), engaging local governments acting as a “cooperating agency” under NEPA, and a State Governor’s consistency review process.

#### ***The National Environmental Policy Act***

The National Environmental Policy Act (NEPA) applies to “every major Federal action significantly affecting the quality of the human environment” (42 U.S.C. § 4332(2)(C)). The courts have interpreted this to mean that every time the federal government makes a decision for almost any action that may have an environmental impact, NEPA compliance is required. Some courts have even required agencies to follow NEPA when the agency spends a small amount of money on a project or program when they are not the lead agency. See *e.g. Citizens Alert Regarding the Environment v. United States Environmental Protection Agency*, 259 F. Supp.2d 9, 20 (D.D.C. 2003).

NEPA requires that agencies undertake an environmental analysis to determine whether a federal action has the potential to cause significant environmental effects. If a proposed action has been classified by an agencies’ procedures as a categorical exclusion because it does not individually or cumulatively have a significant effect on the human environment, then no further environmental analysis is needed (40 C.F.R. § 1501.1). If a categorical exclusion does not apply to a proposed action, then the federal agency must prepare an Environmental Assessment (EA) to determine whether the proposed action will have a significant impact on the quality of the human environment. If a proposed major federal action is determined to significantly affect the quality of the human environment, federal agencies are required to prepare an Environmental Impact Statement (EIS). The regulatory requirements for an EIS are more detailed and rigorous than the requirements for an EA. There are several ways local governments can participate in the NEPA process depending on the level of analysis, type of federal decision, level of commitment of the local government, and the goals of the local government.



First, local governments can use these plans as part of the federal agency’s “consistency review” process. Under this provision, if the federal agency receives a local plan in the course of writing an EIS or EA, NEPA commands the federal agency to “discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the [environmental impact] statement should describe the extent to which the [federal] agency would reconcile its proposed action with the [local government] plan or law.” (40 C.F.R. §§ 1506.2, 1506.2(d)). For local governments to take advantage of consistency review requirements, a written and adopted local plan is required. With a written plan, this analysis happens even when the local government does not know about the pending decision or action if the LUP was provided in advance to the reviewing federal agency.

NEPA requires that copies of comments from state or local governments accompany the EIS or EA throughout the review process (42 U.S.C. § 4332(2)(c)). As there is no requirement for federal agencies to discuss the inconsistencies of a proposed action with comments from state or local governments, written comments submitted by a local government not tied to a formally adopted NRMP require less rigorous analysis than those tied to an adopted NRMP.

Local governments can participate in the NEPA process as a “cooperating agency” (40 C.F.R. § 1508.5), an action separate from NRMP review. If a local government believes that a proposed federal action will impact the local government, and the local government wants to be involved in the analysis and decision-making process at its inception, the government may request “cooperating agency status” to the deciding federal agency. “Cooperating agency status” allows local governments to work with federal agencies throughout the development of a federal plan or proposal, including before public feedback is solicited. It does not require a written land use plan prepared by local governments. As a part of the scoping process, lead agencies must invite likely affected local agencies and governments to participate as a cooperating agency. 40 C.F.R. § 1501.9. An invitation during the scoping period is not required to participate as a cooperating agency and a local government can request to be a cooperating agency even after the scoping period. With respect to cooperating agencies, a lead agency must (1) request the participation of cooperating agencies at the earliest practicable time; (2) use the environmental analysis and proposals of cooperating agencies with jurisdiction to the maximum extent practicable; (3) meet a cooperating agency at the cooperating agency’s request; (4) determine the purpose and need, and alternatives in consultation with the cooperating agency. 40 C.F.R. § 1501.7(h). Should a local government request cooperating agency status for a particular agency proposed action (for example, the designation of critical habitat for a listed threatened or endangered species), the local government can, at the request of the lead agency, participate in drafting portions of the relevant NEPA document. 40 C.F.R. § 1501.6(b)(3). This can involve identifying appropriate scientific data, assisting with alternative development for the proposed federal action, and ensuring that the discussion of impacts to the local economy or the local citizens is accurate. A NRMP, while not required, can aide this analysis. Cooperating agency status can be reserved for more significant federal decisions likely to have a larger impact on a community and is not required for every federal action.





Pursuant to NEPA, an applicant for cooperating agency status must be a locally elected body such as a conservation district, board of supervisors, or a County commission; and possess “special expertise.” A local government’s special expertise is defined as the authority granted to a local governing body by state statute. See Section 2.5 for County authority under state law.

Cooperating agency status can be an expensive, time consuming, and cumbersome process and may be particularly challenging for communities with limited resources. A NRMP ensures that the federal agency addresses the County’s policies for virtually every federal decision without the burden of cooperating agency status.

### ***The National Forest Management Act***

The National Forest Management Act (NFMA) governs the U.S. Forest Service (USFS) and requires the agency to “coordinate”. The NFMA requirements are as follows:

*[T]he Secretary of Agriculture shall develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management planning processes of State and local governments and other Federal agencies. (16 U.S.C. § 1604(a)).*

The fact that the USFS is directed to “coordinate” with local governments implies, by its plain meaning, that the USFS must engage in a process that involves more than simply “considering” the plans and policies of local governments; it must attempt to achieve compatibility between USFS plans and local land use plans.

### ***The Federal Land Policy and Management Act***

The Federal Land Policy and Management Act (FLPMA), which governs the Bureau of Land Management (BLM), provides detailed requirements for “coordination” and “consistency” with local land use plans. With regard to the requirements for “coordination”, FLPMA states that the BLM must:

*To the extent consistent with laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the State and local governments within which the lands are located [...] by considering the policies of approved State and tribal land resource management programs (43 U.S.C. § 1712(c)(9)).*

Such coordination is to be achieved by:

- To the extent practicable, the BLM must stay apprised of local land use plans.
- The BLM must assure that local land use plans germane to the development of BLM land use plans are given consideration.
- To the extent practicable, the BLM must assist in resolving inconsistencies between local and BLM land use plans.



- The BLM must provide for the meaningful involvement of local governments in the development of BLM land use programs, regulations, and decisions. This includes early notification of proposed decisions that may impact non-federal lands. (43 U.S.C. § 1712(c)(9)).

Additionally, FLPMA requires BLM land use plans to be consistent with local land use plans, provided that achieving consistency does not result in a violation of federal law. FLPMA states: “Land use plans of the Secretary [of the Interior,] under this section shall be consistent with state and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act.” (43 U.S.C. § 1712(c)(9)).

In other words, FLPMA requires both “coordination” and “consistency review.” Coordination should include both regularly scheduled meetings between the various local governments and BLM managers, as well as inviting local BLM staff to local government meetings (Bureau of Land Management, 2012b). Pursuant to FLPMA’s consistency review requirement, if a BLM land use plan is inconsistent with a local land use plan, the BLM owes an explanation of how achieving consistency would result in a violation of federal law. (43 U.S.C. § 1712(c)(9)).

### ***Governor’s Consistency Review Process***

FLPMA also requires that the BLM provide for a governor’s consistency review as part of their land use planning process (43 C.F.R. § 1610.3-2(e)). State governors are entitled to an additional and entirely separate review of BLM land use plans, revisions, and amendments; this provides an opportunity to identify any inconsistencies with state or local plans. If a governor’s comments result in changes to the plan, the public notification of these changes is required. The governor may also refer to policies in the NRMP in their review of the proposed federal action.

### ***National Park Service***

The National Park Service (NPS) was established by the Organic Act in 1916 to manage 14 national parks and 21 national monuments. The Preservation of Historic Sites Act of 1935, the Wilderness Act of 1964, and the Wild and Scenic Rivers Act of 1968 all contributed to the evolution of the NPS and managed park land management. NEPA and the Endangered Species Act (ESA) of 1969 and 1973 increased the complexity and prevalence of science in park management. Throughout this time span the NPS had grown to solely oversee all of the nation’s parklands, this included parks previously held by the War Department, national monuments previously managed by the USFS, and parks which resided in Washington D.C. The National Park Omnibus Management Act of 1998 increased accountability and improved management for multiple NPS programs. This legislation required that the NPS receive authorization from Congress prior to studying potential areas for addition the National Park System (NPS, n.d.-b).

In accordance with Executive Order 13352, the NPS is required to carry out its natural resource management responsibilities in a cooperative manner that considers the interests of individuals “with ownership or other legally recognized interest in land and other natural resources” (*Executive Order 13352*, 2017). NPS is also expected to accommodate local participation in Federal decision-making (*Executive Order 13352*, 2017).



## PLAN ORGANIZATION

This plan considers the current conditions of federal resources, County objectives for each resource, and how the County would like to see those objectives achieved. For all federal resources in the County, this plan addresses the following:

- **Resource Assessment and Legal Framework.** Includes background and detailed information on the resource, including qualitative as well as quantitative information. The assessment includes an evaluation of the importance of the resource to the County, location, quality and size, as well as a map of the resource, where appropriate. The Resource Assessment relies on the best data available at the time of publication, though new data collection or research is not required. The Resource Assessment addresses the question, “What is the state of the resource now?” This section does not describe how the County interprets or proposes to use a particular resource or topic. This section describes how Federal agencies interpret federal laws, guidance and handbooks.
- **Resource Management Objectives.** Describes general goals in the form of broad policy statements regarding the use, development and protection for each resource. Resource Management Objectives address the question, “What does the County want for and from this resource?”
- **Priorities.** Describes specific priorities on how to achieve the County’s Resource Management Objective for each resource. Priorities tier to Resource Management Objectives for each resource and address the question, “How would the County like to see its objectives achieved?” The general agreement or disagreement with the interpretation described in the Resource Assessment section should be used as the defining direction for the priority statements.

## PROCESS

Consistent with Wyo. Stat. § 9-4-218(a)(viii)(D) and in accordance with Wyo. Stat. §§ 16-4-401 through 16-4-408, the County developed this plan in public meetings, allowing for participation and contribution from the public. A steering committee has guided development of the draft document, including objective and priority development.

The 2005 Johnson County Comprehensive Land Use Plan was referenced for the development of this plan. A steering committee of 12 people has guided development of the draft document, including objective and priority development. See [Appendix C](#) for a list of steering committee members.

The draft document was being released for public comment for 30 days beginning on August 17, 2020. Written comments received during the public comment period were incorporated into the final plan as appropriate. A public meeting in both Kaycee and Buffalo was held on September 1, 2020 in which the public had the opportunity to participate and contribute to the plan as well as ask questions regarding the plan. The final plan was presented to the Johnson County Board of County Commissioners for final adoption in December 2020.



This plan is based on criteria developed by the Office of the Governor of the State of Wyoming in consultation with the counties, consistent with Wyo. Stat. § 9-4-218(a)(viii)(B).

## **AMENDING THE NRMP**

This plan can be amended following the same process for public involvement and adoption as described in the previous section. It is recommended to review the plan at least every five years.

## **COUNTY EXPECTATIONS FOR NATURAL RESOURCE MANAGEMENT PLAN**

While the statutes and regulations outlined above spell out the legal requirements of the Federal agencies in their duties in working with local governments, the County recognizes that part of this land use planning process is to develop a solid working relationship with the Federal agencies doing business in Johnson County. The County also recognizes that “coordination,” “cooperating agency status” and “consistency review” are required actions on behalf of both the Federal agencies and the Local governments. To that end, the County commits to the following actions:

1. Within 30 days of the date of adoption of this plan, the County will inform Federal agencies of the date, time, and location of their regularly scheduled meetings with an open invitation that Federal agency personnel should attend such meetings if there are items to discuss. Meetings will be scheduled on a biannual basis.
2. Within 30 days of the date of adoption of this plan, the County will transmit a copy of this Natural Resource Management Plan to the state, regional, and local Federal agency offices doing business within Johnson County for their consideration as part of any consistency review that is required pursuant to federal statute.
3. Within 30 days of the adoption of this plan, the County will contact the BLM and USFS offices to determine a protocol for informal communication to ensure each is apprised of issues and concerns as early as possible.
4. In a timely manner, the County will review NEPA documents to determine if they will request “cooperating agency status” and will consider entering into Memorandums of Understanding (MOU) or Memorandums of Agreement (MOA) as appropriate. The County reserves the right to negotiate an MOU or MOA on a case-by-case basis, although an MOU or MOA is not appropriate nor necessary in all cases.

The County supports establishment of a multi-agency stakeholder group, hosted by the County Commissioners, to review and discuss ongoing actions and issues on federal lands and propose regular meetings on a schedule to be determined, but not less than quarterly.

### **Credible Data**

To the greatest extent possible, data should drive all land use planning decisions. In this plan, “data” refers to information that meets, at a minimum, the Federal Data Quality Act (FDQA). The FDQA directs the Office of Management and Budget (OMB) to issue government-wide guidelines that “provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility and integrity of information (including statistical information) disseminated by Federal agencies” (Sec. 552(a) Pub. Law. 106-554; HR 5658; 114 Stat. 2763 (2000)).



The OMB guidelines apply to all Federal agencies and require that information disseminated by the Federal government will meet basic informational quality standards 66 Fed. Reg. 49718, Sept. 28, 2001; see also 67 Fed. Reg. 8452, Feb. 22, 2002).

This “standard of quality” essentially requires that data used and published by all Federal agencies meet four elements. These elements include (66 Fed. Reg. at 49718):

- a) Quality,
- b) Utility (i.e., referring to the usefulness of the data for its intended purpose),
- c) Objectivity (i.e., the data must be accurate, reliable, and unbiased), and
- d) Integrity.

In addition to following the OMB guidelines, all Federal agencies were to issue data quality guidelines by October 1, 2002. 67 Fed. Reg. 8452.

In 2004, the OMB issued a memorandum requiring that, after June 15, 2005, influential scientific information representing the views of the department or agency cannot be disseminated by the Federal government until it has been “peer reviewed” by qualified specialists (Office of Management and Budget, 2004). This requirement does not specifically require outside peer review, but internal review.

### **Resource Management Objective:**

- A. Credible data has a universal meaning for all Federal agencies in the County and is the basis for all agency decisions within the County.

### **Priorities:**

1. Appropriate quantitative and qualitative data should be included in federal land use planning decisions that meets credible data criteria, even if the data were not produced by a Federal agency.
2. Support the use of credible scientific data.
3. All Federal agencies should only use data that meets the minimum criteria described in their respective handbooks and manuals, as updated:
  - a. BLM: BLM H-1283-1 Data Administration and Management (Public) (Bureau of Land Management, 2012a)
  - b. USFS: FS FSH 1909.12, Chapter 40, Land Management Planning Handbook – Key Processes Supporting Land Management Planning (US Forest Service, 2013)
  - c. NPS: NPS PM 07-03 *NPS Interim Guidance Document Governing Code of Conduct, Peer Review, and Information Quality Correction* (National Park Service 2008); unless other criteria are agreed upon between the County and agencies.



# CHAPTER 1: CUSTOM AND CULTURE

## 1.1 COUNTY INTRODUCTION AND OVERVIEW

### Johnson County History, Customs, and Culture

County Commissions in the State of Wyoming have been charged with responsibility for the preservation of the custom and culture of Wyoming counties in matters relating to the NEPA and federal land planning. Since the customs, culture, and history of Johnson County (“the County”) are inseparably tied to the use of and access to land and resources managed by Federal agencies, the Board of County Commissioners (BOCC) will use the policies set forth in this NRMP to represent the vital interests of the County in federal natural resource planning efforts.

The settlement of present-day Johnson County began in the 1870s, primarily by cattle ranchers. Johnson County was formally established in 1879 spanning the area that is now Johnson, Big Horn, Sheridan and Washakie counties. In 1887 and 1890 the County was reduced in size with the formation of Sheridan and Big Horn Counties. Prior to being named Johnson County, the county was labeled as Carbon County from 1872 to 1879 and then as Pease County until finally becoming Johnson County (Farquhar, 2014). Crops grown locally include alfalfa and grass hay, oats, feed barley, native grass, and sugar beets. Some irrigated areas are used for pasturing cattle, sheep, horses, and other livestock. Many ranches are operated primarily in support of livestock that graze at least partially on federal land leases. The livestock industry accounts for a large portion of Johnson County’s agricultural income and is the oldest continuing industry in the County. It was the livestock industry that originally brought settlement to Johnson County. Families established homesteads along rivers and began irrigating the surrounding land to increase production. Clear Creek was the earliest irrigation development in 1878. By the mid-1880s over 10,000 acres along Clear Creek were irrigated. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)



In 1892 large-operation cattle barons monopolized much of the range in Johnson County. In the years prior to 1892 tension grew between small homestead ranch operations and the cattle barons. Nate Champion was a homestead rancher on a fork of the Powder River that refused to back down to the cattle barons as conflicts arose. Following an altercation, Nate Champion identified one of the men that attacked him. During the investigation into who had hired the men, some of the cattle barons gathered a posse and killed Nate Champion. The event was later named the Johnson County War. While the barons involved were arrested, the Governor at the time did not allow access to them for questioning and Johnson County was charged with all expenses to hold the prisoners. Eventually the charges were dropped without a trial. The





resulting outrage among Johnson County residents initiated changes in the Wyoming Stock Growers Association and Wyoming elected officials. The events of the Johnson County War changed ranching across the region. (Davis, 2014)

In more recent times, many people from out-of-state come to Johnson County to experience the traditional western lifestyle, visiting dude ranches and museums, attending rodeos and the County fair, or simply observing the beauty of the Bighorn Mountains. Some of the recreation activities enjoyed within the County include off-road vehicle use, snowmobiling, hunting and fishing, rock climbing, rock-hunting, horseback riding, mountain biking, camping, hiking, outdoor photography, bird-watching, observing the many paleontological and geological features, and enjoying the abundant wildlife of the area. Family traditions of outings to camp, hunt, fish, ride horses, backpack, and generally enjoy the outdoors are central to the County's identity and way of life. To live here is to be connected to the land.

The greatest outside influence on the continuation of these central aspects of the custom and culture of the County has been, and will continue to be, the management actions and policy of State and Federal governments, whose jurisdiction over federal lands, its resources, and its water is fundamental to the County's economic structure and way of life. Future land management actions in Johnson County will protect the historical use, access to, and conservation of the land. Since the County's inception, public lands and Federal agencies have been important factors contributing to the development of the County's customs and culture. Federal land management agencies are an important asset to the County, providing 15% of the employment within Johnson County.

Coal, timber, natural gas, oil, bentonite, and uranium mining contribute extensively to the development and the current custom, culture, and economy of Johnson County (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005). The extraction and sale of these energy resources employs many residents and is a major contributor to the tax dollars that support County and municipal governments (Data USA, n.d.). The railroad was central to the early development of the County and was first used for the shipment of livestock, farm produce, and to transport passengers.

## County Overview

Johnson County is located in north-central Wyoming, south of Sheridan County and east of Big Horn County (Figure 1). The County is located on the high plains' characteristic of eastern Wyoming, bordered by the Bighorn Mountains on the northwest. The Powder River flows from south to north through the eastern portion of the County. The highest elevation in the County is the Cloud Peak summit at 13,167 feet in the Bighorn Mountains.

As the tenth largest County in Wyoming, Johnson County spans over 2.5 million acres (4,175 square miles), making it larger than the states of Rhode Island and Delaware. Approximately 31% of the land in Johnson County is federally owned, with the largest portions being held by the BLM at 20% (504,390 ac) and the USFS at 11% (328,320 ac).





The total population in Johnson County is 8,569, according to 2010 U.S. Census data. The population is largely rural, with only about half the population living within the two incorporated towns (Buffalo and Kaycee). Unincorporated communities within the County include Hazelton, Linch, Saddlestring, and Sussex.



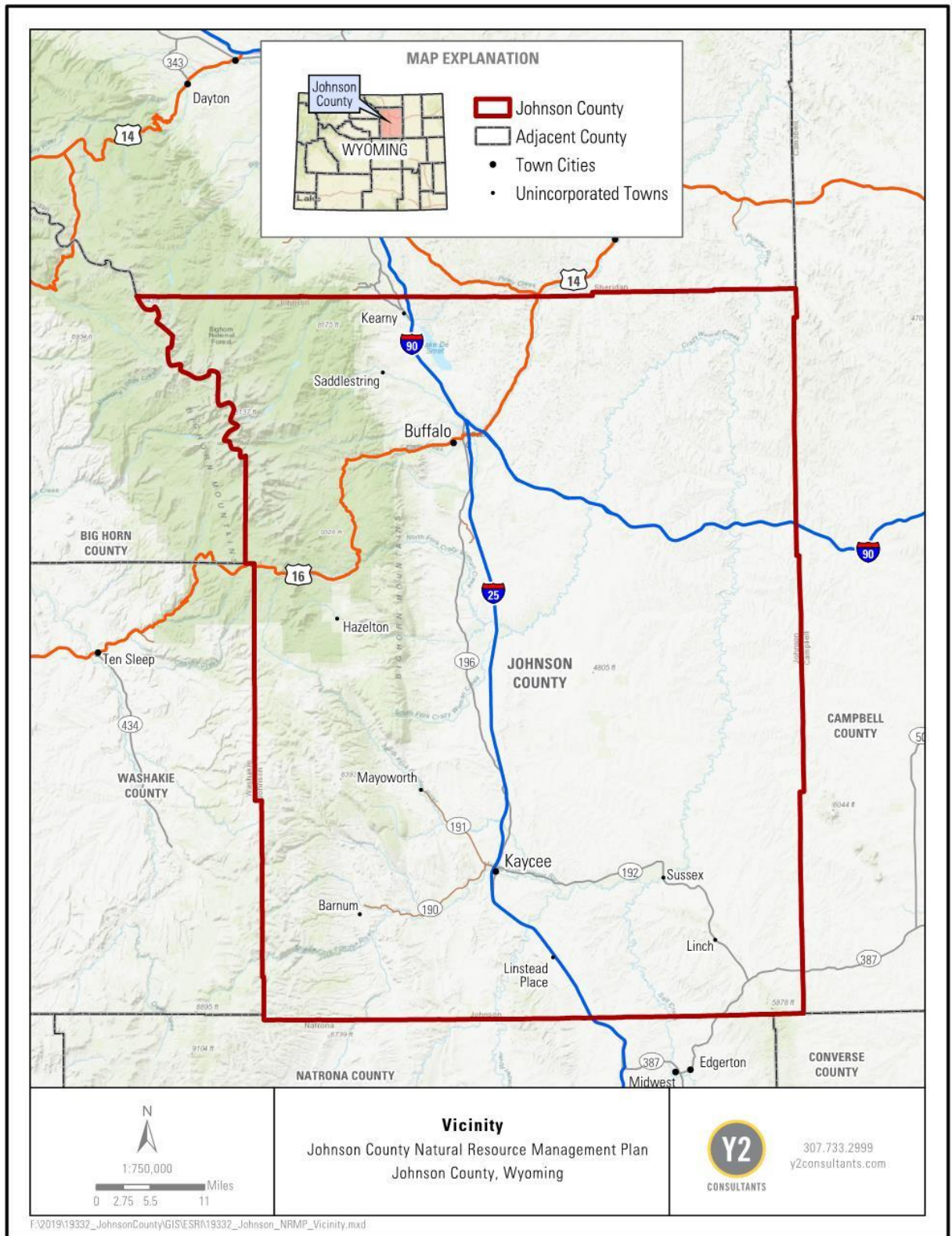


Figure 1. Johnson County Natural Resource Management Plan Area.



## CHAPTER 2: LAND USE

### 2.1 LAND USE

Johnson County is the tenth largest County in Wyoming, spanning 4,175 square miles. Johnson County relies heavily on federally owned lands for tourism, recreation, mining, oil and gas, hunting, and grazing. Figure 2 shows the land ownership of Johnson County.

#### Conservation Districts

During the 1930s, the Dust Bowl made the need to conserve natural resources, particularly soil, very clear. The Soil Conservation Act of 1935 created the Soil Conservation Service, now the Natural Resource Conservation Service (NRCS), to develop and implement soil erosion control programs (WACD, n.d.). In 1941, the Wyoming State Legislature passed an enabling act that established conservation districts in Wyoming. Conservation districts direct programs protecting local renewable natural resources. Wyoming now has 34 conservation districts in 23 counties (WACD, n.d.).

Two conservation districts exist in Johnson County: the Clear Creek Conservation District (CCCD) in the northern half of the County (Buffalo), and the Powder River Conservation District in the southern half (Kaycee)(Social Resources for Western Wyoming, n.d.).

#### Bureau of Land Management (BLM)

The BLM manages approximately 20% of the land in Johnson County. This includes most of the unincorporated County. Johnson County is included in the High Plains District and includes a field office in Buffalo. The Buffalo Field Office manages 780,291 acres, including much of Johnson, Campbell, and Sheridan Counties. The Buffalo Resource Management Plan (RMP) was approved in a record of decision signed September of 2015.

The BLM we know today was established in 1946 by combining the General Lands Office (GLO) and the U.S. Grazing Service. The GLO was created in 1812 and was responsible for all federal land sales, patents, and entries established within Treasury Department to oversee disposition of ceded and acquired lands (Bureau of Land Management, 2016a). In 1934, the Taylor Grazing Act authorized grazing districts, regulation of grazing, and public rangeland improvements in Western states and established the Division of Grazing (later renamed U.S. Grazing Service) within the Department of the Interior.

The Federal Land Policy and Management Act (FLPMA) is the BLM's governing document outlining the management responsibilities of the BLM to balance public access and multiple-uses with the protection and preservation of the quality of the lands and its resources (43 USC § 1732) (FLPMA, 1976). FLPMA requires the BLM to administer federal lands "on the basis of multiple use and sustained yield" of all resources (FLPMA, 1976).



## United States Forest Service (USFS)

The USFS manages approximately 11% of the total land in Johnson County within the Bighorn National Forest. The Bighorn National Forest is headquartered in Sheridan. The Powder River Ranger District is located in Buffalo.

In 1876, United States forest management was formalized with the creation of the Office of Special Agent within the Department of Agriculture for the purpose of assessing the quality and condition of U.S. forests. In 1881, the Division of Forestry was added to the Department of Agriculture. In 1891 Congress passed the Forest Reserve Act allowing the President to designate western lands as “forest reserves” to be managed by the Department of the Interior. Western communities opposed forest designations because development and use of “reserved lands” were prohibited. In 1897, Congress adopted the Organic Administration Act of 1897 (OAA) to protect the use of forest reserves for local citizens. The Big Horn Forest Reserve was one of the original reserves in the OAA in 1897. The OAA declared that forest reserves would be created either to protect water resources for citizens and agriculture, and/or to provide a continuous supply of timber. Thus, the purposes for which forests were to be used changed from the land being reserved from local communities, to the land being used for economic development by local communities.

Responsibility for forest reserves was transferred to the Department of Agriculture with the Transfer Act of 1905 and the establishment of the USFS. The Multiple-Use Sustained-Yield Act of 1960 (MUSY) requires that forests be managed for various multiple uses (MUSY of 1960, 1960). This idea was further codified in the National Forest Management Act (NFMA) (16 USC § 1601(d)).

The Bighorn National Forest, established in 1897, is located along the eastern border of Bighorn County and continues into Sheridan and Johnson counties (USFS, n.d.-e). The Bighorn National Forest is subdivided into three Ranger Districts: the Tongue River Ranger District based out of Sheridan, the Powder River Ranger District based out of Buffalo, and the Medicine Wheel Ranger District based out of Greybull, Wyoming. The Powder River Ranger District overlaps with Johnson County. The Forest boundary encompasses 1,115,161 acres of federally protected land, with 328,320 acres within Johnson County. The Bighorn National Forest provides recreation and scenic opportunities for the residents of Johnson County and neighboring counties.

NFMA requires that each national forest and grassland be governed by a management plan. The Bighorn National Forest Land and Resource Management Plan was revised in 2005 in accordance with federal statutes (USFS, n.d.-e). Two plans, the Northern Rockies Lynx Amendment (2007) and the Greater Sage-Grouse Record of Decision: Northwest Colorado, Wyoming (2015) modify specific activities in the 2005 Revised Land and Resource Management Plan. However, the BBNF does not contain Greater sage-grouse core areas and therefore is not impacted by the Greater Sage-Grouse Record of Decision. Johnson County participated as a cooperating agency during the Bighorn National Forest plan revision and continues to participate twice a year on a Steering Committee. The Steering Committee was recognized by the USFS Regional Forester in April 2019 for creating and maintaining resilient landscapes and as a model for effective collaboration. The USFS lands, as well as any forested lands managed by the BLM, within Johnson County shall be



managed and administered for multiple-use and sustained-yield in perpetuity so that future generations will have the opportunity to benefit from, use, and enjoy them as directed in NFMA.

### **Other Federal Agencies**

At the time that this plan was adopted there were no other Federal agencies lands within Johnson County.





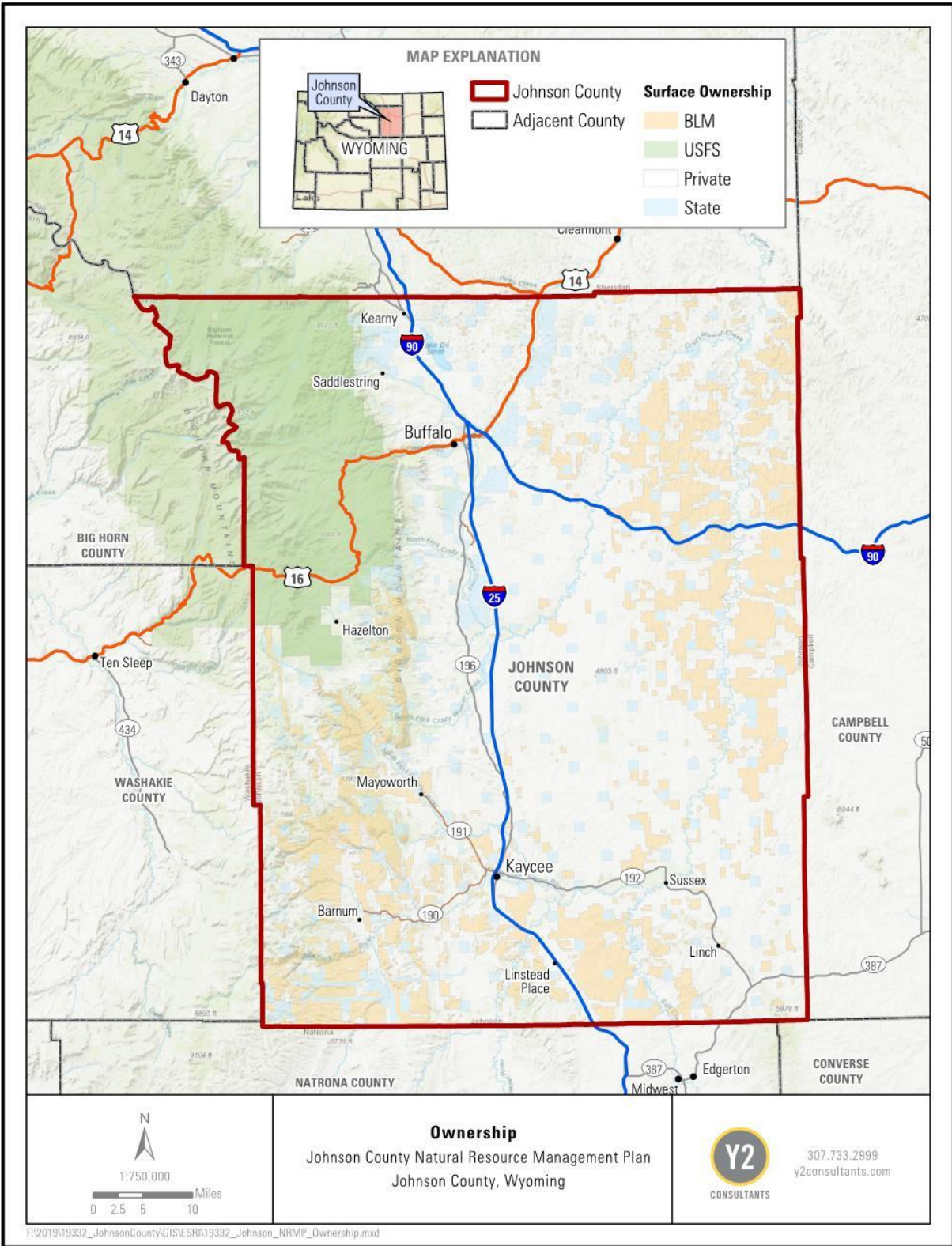


Figure 2. Johnson County Surface Ownership Map.



2.1 Land Use

## 2.2 TRANSPORTATION AND LAND ACCESS

### History, Custom, and Culture

The County itself relies on access to federal lands to fulfill its statutory mandate to protect the health, safety, and general welfare of the people within its jurisdiction; including but not limited to fire protection, search and rescue, flood control, law enforcement, economic development, and the maintenance of County improvements.

It is vital to the sustainability of the livestock industry in Johnson County that grazing areas, and stock trails that connect them, be open and accessible. Livestock “trailed” from one grazing area to another must have access to grazing areas on either end of that process, as well as lands in between. Historical use of stock trails and grazing areas has fluctuated over the years, depending on market prices, and weather conditions, but the need for access availability has remained constant.

Johnson County’s transportation corridors have long serviced diverse industries. Tourists constantly travel through the County to various destinations. There is also a significant amount of oil and gas traffic utilizing these corridors.

### Resource Assessment and Legal Framework

Congress, as the constitutional manager of federal lands, has made it clear through natural resource statutes that the general public must have use of and access to the federal lands. It is vital to the County’s interests and performance of duties that full and complete access to federal lands continue.

The BLM and USFS both have specific provisions they must follow when considering the closure of roads and trails. A requirement of these provisions is that such activity be conducted in coordination with the County prior to such action being taken. Road closures in Johnson County without prior coordination with the County could cause economic harm and impact citizen and visitor enjoyment of the County’s natural resources. Coordination on transportation and land access should continue and be enhanced wherever possible.

It is understood that the federal definition of “roadless” does not mean there are no roads present, but rather that the area is managed to prohibit the construction of new roads, or reconstruction of existing roads. Existing roads within roadless areas can continue to be maintained. Refer to the [2001 Roadless Rule](#)<sup>25</sup> for additional information.

The U.S. Department of Agriculture classifies roads within National Forests by five levels of maintenance: 1, 2, 3, 4, and 5. Level 1 roads refer to roads closed to motorized vehicles. Level 2 roads are maintained for high clearance vehicles, and Level 3-5 roads are maintained for standard passenger cars during the season of use. Refer to the Forest Service [Guidelines for Road Maintenance Levels](#)<sup>1</sup> for additional information.

The Taylor Grazing Act provides for the establishment, maintenance, and use of stock trails within established grazing districts (43 U.S.C. § 316). The National Trails Systems Act defines the





standards and methods by which additional trails may be added to the system including scenic, historic, and recreational trails. NEPA requires federal projects and land use decisions, including opening and closing of roads, to go through an environmental review process. The Wilderness Act of 1964 prohibits motor vehicles in wilderness areas except in emergency situations or when there is a possible management need.

The Land and Water Conservation Fund (LWCF) Act of 1964 was permanently reauthorized in March 2019 and “...supports the protection of federal public lands and waters – including national parks, forests, wildlife refuges, and recreation areas – and voluntary conservation on private land. LWCF investments secure public access, improve recreational opportunities, and preserve ecosystem benefits for local communities.” The Great American Outdoors Act, signed in August of 2020, secured permanent funding for the LWCF. (US Department of the Interior, 2015) Through the FAST Act, the Recreational Trails Program (RTP) was reauthorized and “provides funds to the States to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses.” (Office of Federal Lands Highway, 2018). The LWCF and RTP can be reliable sources for funding through grants and loans.

### ***Federal Highway Administration (FHWA)***

The Federal Highway Administration (FHWA) is an agency within the U.S. Department of Transportation created in 1966.

*“The mission of FHWA is to enable and empower the strengthening of a world-class highway system that promotes safety, mobility, and economic growth, while enhancing the quality of life of all Americans.” (Office of Federal Lands Highway, 2018)*

Under this mission, the FHWA provides resources to municipalities across the nation and in the form of indirect and direct methods. Indirectly, the FHWA provides valuable research and design guidance on numerous topics to push the industry towards a safer, efficient, and wholistic network. Directly, the FHWA provides grants to local Department of Transportation divisions to facilitate project design and construction based upon merit. These grants are distributed through the Federal Highway-Aid Program.

Alongside the FHWA, numerous programs were created under the Federal Lands Highway Division (FLH) to specifically service certain groups and were reauthorized under the Fixing America’s Surface Transportation (FAST) Act. These programs are:

- Federal Lands Access Program (FLAP): “established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within, Federal lands. The Access Program supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.” (Office of Federal Lands Highway, 2018).
- Federal Lands Transportation Program (FLTP): “established in 23 U.S.C. 203 to improve the transportation infrastructure owned and maintained by federal land management



agencies including USFWS, USFS, BLM, and independent Federal agencies with land and natural resource management responsibilities.”(Office of Federal Lands Highway, 2018).

- Nationally Significant Federal Lands and Tribal Projects Program (NSFLTP): “...provides funding for the construction, reconstruction, and rehabilitation of nationally significant projects within, adjacent to, or accessing Federal and tribal lands. This program provides an opportunity to address significant challenges across the nation for transportation facilities that serve Federal and tribal lands.” (Office of Federal Lands Highway, 2018).
- Emergency Relief for Federally Owned Roads (ERFO): “established to assist Federal agencies with the repair or reconstruction of tribal transportation facilities, federal lands transportation facilities, and other federally owned roads that are open to public travel, which are found to have suffered serious damage by a natural disaster over a wide area or by a catastrophic failure.” (Office of Federal Lands Highway, 2018).

Wyoming Department of Transportation (WYDOT) works directly through the above programs to help secure funding and has annually. Through the FLAP program alone, Wyoming has secured \$73.3 million spread across 16 projects from 2013 to 2022.

#### ***United States Fish and Wildlife Service (USFWS)***

The USFWS has produced both National Long-Range Transportation Plans (LRTP’S) and Regional LRTP’s, including roadway design guidelines and other guidelines for developing infrastructure through conservation lands (US Fish and Wildlife Service, 2018).

#### ***United States Forest Service (USFS)***

The federal lands managed by the USFS in the County are to be managed for multiple-use and sustained-yield uses (16 USC 1601(d)) (Multiple-Use Sustained-Yield Act of 1960, 1960) including, but not limited to agriculture (farming, irrigation, livestock grazing); recreation (motorized and non-motorized transport and activities, such as hunting, fishing, water and land sports, hiking, etc.); industry (mining, power production, oil and gas production/exploration, and timbering); intangible values (historical and cultural sites, access to open space, aesthetic values, conservation); and weed, pest, and predator control.

The USFS is directed to coordinate the preparation of Travel Management Plans with the County (36 CFR 212).

*“The responsible official shall coordinate with appropriate Federal, State, County, and other local governmental entities and tribal governments when designating National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to this subpart.” (36 CFR 212.53)*

*“Designations of National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to §212.51 may be revised as needed to meet changing conditions. Revisions of designations shall be made in accordance with the requirements for public involvement in §212.52, the requirements for coordination with governmental entities in §212.53, and the criteria in §212.55,” (36 CFR 212.54)*



### ***Bureau of Land Management (BLM)***

BLM land is enjoyed by the public for numerous recreational activities. The BLM must follow various federal laws regarding the management of transportation and travel on federal lands. FLPMA is the BLM's governing document outlining the management responsibilities of the BLM to balance public access and multiple-uses with the protection and preservation of the quality of the lands and its resources (FLPMA, 1976). Due to the importance of transportation when balancing preservation with multiple use management, the BLM must now incorporate travel and transportation management decisions into all new and revised RMPs to address needs with regard to resource management and resource use goals and objectives. See the BLM's [Travel and Transportation Management Manual](#)<sup>26</sup> for more information. Travel Management Plans (TMPs) are the primary implementation-level decision documents laying out the management of BLM's travel network and transportation systems. Decisions made in TMPs are implementation-level decisions and should be tied to the goals, objectives, and management actions contained within the RMP. *Id.* at 4-1. The BLM is required to coordinate "inventory" with the County (43 USC § 1712) (FLPMA, 1976).

The upper Beartrap Creek drainage is a historic stock driveway that is still used today. The Buffalo BLM manages several stock trails in Johnson County that are essential to livestock movement to different grazing areas throughout the year. The Buffalo RMP specifically states that an objective of land resources is to continue the existence and use of stock trails. (BLM, 2015)

### ***Revised Statute 2477 (R.S. 2477)***

Revised statute 2477 (R.S. 2477) provided that "the right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted." The Act of July 26, 1866, § 8, ch. 262, 14 STAT. 251, 253 (1866) (formerly codified at 43 U.S.C. § 932). Congress enacted a grant of rights-of-way over unreserved public lands for the construction of highways. The grant was originally section 8 of the Mining Act of 1866, which became section 2477 of the Revised Statutes; hence the grant is commonly referred to as R.S. 2477.

The grant is self-executing and an R.S. 2477 right-of-way comes into existence "automatically" when the requisite elements are met. *See, Shultz v. Dep't of Army*, 10 F.3d 649, 655 (9<sup>th</sup> Cir. 1993). One hundred and ten years after its enactment, R.S. 2477 was repealed with the passage of the Federal Land Policy and Management Act of 1976 ("FLPMA"), 43 U.S.C. § 1701 et seq. *See*, 43 U.S.C. § 932, repealed by Pub. L. No. 94-579, § 706(a), 90 STAT. 2743, 2793 (1976). Even though FLPMA repealed R.S. 2477, FLPMA explicitly preserved any rights-of-way that existed before October 21, 1976, the date of FLPMA's enactment. *See*, 43 U.S.C. § 1769(a) (stating that nothing "in this subchapter shall have the effect of terminating any right-of-way or right-of-use heretofore issued, granted, or permitted."); *see also*, 43 U.S.C. § 1701, Savings Provision (a) and (h). Therefore, R.S. 2477 rights-of-way which were perfected prior to October 21, 1976 are valid even after the repeal of R.S. 2477.

The courts have clearly established that the states have the proprietary jurisdiction over rights-of-way within their state. *Colorado v. Toll*, 268 US 228, 231 (1925). This jurisdiction and control over rights-of-way through public lands must be actively ceded by the state (or counties as arms



of the state) to the Federal government or curtailed by Congress. *US v. Garfield County*, 122 F. Supp.2d 1201, 1235 (D. Utah 2000) citing *Kleppe v. New Mexico*, 426 US 529, 541-46 (1976). Congress has yet to overturn R.S. 2477 or wrest control over the determination of what is a valid R.S. 2477 right-of-way. Thus, the question of whether an R.S. 2477 is established and the scope of the right-of-way is a matter of state law. See *U.S. v. Garfield County*, 122 F.Supp.2d at 1255; *Sierra Club v. Hodel*, 848 F.2d 1068, 1080 (10<sup>th</sup> Cir. 1988).

The repeal of R.S. 2477 “froze” the scope of the R.S. 2477 right-of-way. Thus, the scope of the R.S. 2477 right-of-way is limited by the established usage of the route as of the date the repeal of the statute. *Southern Utah Wilderness Alliance v. Bureau of Land Management*, 425 F.3d 735, 746 (10<sup>th</sup> Cir. 2005, as amended 2006).

As discussed earlier, an R.S. 2477 grant is self-executing, and the right-of-way comes into existence “automatically” when the requisite state law elements are met. See, *Shultz v. Dep’t of Army*, 10 F.3d 649, 655 (9<sup>th</sup> Cir. 1993). Thus, adjudication of R.S. 2477 rights is not a prerequisite to their existence unless the agency contests the existence of the grant. In cases where the Federal agency contests the existence of an R.S. 2477 right-of-way, a claim against the United States would need to be made under the Quiet Title Act (28 U.S.C.A. § 2409a). The Quiet Title Act provides that the United States may be named as a party defendant in a civil action to adjudicate a disputed title to real property in which the United States claims an interest, other than a security interest or water right. 28 U.S.C.A. § 2409a(a). In such an action, a plaintiff must demonstrate with particularity the nature of the right, title, or interest which the plaintiff claims in the real property, the circumstances under which it was acquired, and the right, title, or interest claimed by the United States. 28 U.S.C.A. § 2409a(d).

### Resource Management Objective:

- A. There is full and open access to and through Johnson County federal lands for local purposes such as safety, health, and recreation use is maintained and expanded where possible.

### Priorities:

1. Support designation of all currently open motorized and nonmotorized trails, rights of way, and roads as open transportation network.
2. No road, trail, or RS 2477 right of way should be closed unless public safety or health demands its closing and the proper analysis and disclosure, in consultation with the County and private property owners, is completed prior to closure.
3. Request that agencies notify the County of any planning process or activity that restricts, eliminates, or increases access to federal or state lands and allow the County to initiate coordination and cooperation to resolve potential conflicts with the County’s objectives, principles, and policies prior to taking action.
4. Preserve stock trails as valid access routes for the purpose of trailing livestock between grazing areas.
5. All formally established BLM and USFS public roads, public trails, and rights of way should be considered valid unless formally abandoned.



6. The County considers long term (greater than one year) road closures a major federal action that significantly affects the quality of the human environment. Thus, a road on federal lands may not be closed until a full NEPA analysis has been completed including public review and coordination with the County. Should the agency believe a road closure falls under a categorical exemption, the County should be consulted.
7. Johnson County should be notified of any temporary road closures.
8. Roads on federal lands should remain open to provide for the economic benefit, use, and safety of the public. Where road closures are proposed, specific justification for the proposal should be given on a case-by-case basis, and the proposal should be discussed in coordination with Johnson County.
9. Support legal public access to federal lands for all beneficial uses as long as it does not infringe on private property rights.
10. The County considers all stock trails to be R.S. 2477 roads and these roads are not abandoned unless abandonment is explicitly established by the County.
11. It is the desire of the County to keep all forest roads within the designated 2001 Roadless Area Conservation Rule, so there is no net loss of roads within these designated areas.

## 2.3 SPECIAL DESIGNATION AND MANAGEMENT AREAS

### History, Custom, and Culture

There are several USFS and BLM special designation and management areas within Johnson County (Figure 3). A map of management areas for the BHNF can be found in Appendix A.

### Resource Assessment and Legal Framework

#### *Areas of Critical Environmental Concern (ACEC)*

Areas of Critical Environmental Concern (ACEC) are BLM-managed areas “where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources (BLM, 2016b). An ACEC may also be designated to protect human life and safety from natural hazards (BLM, 2016b). An ACEC designation must go through the NEPA land use planning process and may be revisited through subsequent land use planning, revision, or amendment. ACECs and other special designations may compete with natural resource-based businesses that are important to the County’s economy, like grazing and mining.

There are currently no designated ACECs within Johnson County.

#### *Research Natural Areas (RNA)*

Research Natural Areas (RNAs) are special management areas that reflect the natural condition of an ecosystem, allowing the agency to see how the ecosystem would be without their involvement. These RNAs serve three functions for the Forest Service: benchmark reference areas; protect biological diversity; and provide research sites for determining how an ecosystem function. The BLM considers RNAs to be a type of ACEC (BLM, n.d.-a). Recreation in RNAs is not encouraged because it can alter the natural state of the area, but natural fire frequencies and intensities are desirable to maintain the natural cycles in the ecosystem. There are currently no



RNAs in the County, but four RNAs were analyzed in detail in the USFS 2005 Land and Resource Management Plan. These include Lake McClain (8,250 acres), Mann Creek (7,500 acres), Leigh Canyon (1,500 acres), and Pheasant Creek (9,090 acres). (USFS, n.d.-b)

***Special Recreation and Extensive Recreation Management Areas (SRMA & ERMA)***

The BLM’s land use plans may designate Special Recreation Management Areas (SRMAs) or Extensive Recreation Management Areas (ERMAs) to provide specific management for recreation opportunities, such as developing trailheads for hikers, mountain bikers, or off-road vehicle users. Both SRMAs and ERMAs exist in Johnson County (Table 1).

SRMAs are BLM administrative units where a commitment has been made to prioritize recreation by managing for specific recreation opportunities and settings on a sustained or enhanced, long-term basis. SRMAs are managed for their unique value, importance, and/or distinctiveness; to protect and enhance a targeted set of activities, experiences, benefits, and desired resource setting characteristics; as the predominant land use plan focus; to protect specific recreation opportunities and resource setting characteristics on a long-term basis. ERMAs are administrative units managed to address recreation use, demand, or existing Recreation and Visitor Services Program investments; support and sustain the principal recreation activities and the associated qualities and conditions; and commensurate with the management of other resources and resource uses. SRMAs and ERMAs within Johnson County include:

***Table 1. SRMAs and ERMAs Located within Johnson County.***

<b>SRMAs</b>	<b>ERMAs</b>
Burt Hollow Management Area	Face of the Bighorns/North Fork
Dry Creek Petrified Tree Management Area	Gardner Mountain
Hole-in-the-Wall Management Area	Kaycee Stockrest
Middle Fork Powder River Management Area	Powder River Basin
Mosier Gulch Management Area	South Bighorns

***Wild and Scenic Rivers***

The National Wild and Scenic Rivers System was created in 1968 to preserve naturally, culturally, and recreationally valued rivers. Rivers are designated for the National Wild and Scenic River System by Congress or, in certain situations, the Secretary of Interior. There are currently 408 miles of rivers and streams designated as wild and scenic in Wyoming. (National Wild and Scenic Rivers System, n.d.-b) There are currently no rivers in Johnson County designated or proposed as wild, scenic, or recreational within the National Wild and Scenic Rivers System (National Wild and Scenic Rivers System, n.d.-a, n.d.-b).

While no wild and scenic river designations are present in Johnson County, the Tongue River in neighboring Sheridan County is managed for retention of its outstanding remarkable values for Wild and Scenic River recommendations. The Little Bighorn River was nominated for Wild and





Scenic but Congress never acted on the proposed designation. (Forest Service: Rocky Mountain Region, 2005)

### **Wilderness Study Areas (WSA)**

The Wilderness Act of 1964 established the National Wilderness Preservation System to be managed by the USFS and the USFWS. The passage of FLPMA in 1976 added the BLM as a wilderness management authority to the Wilderness Act. Wilderness areas must have “wilderness character”, which is described with four qualities. Wilderness Study Areas (WSAs) are places that have wilderness characteristics; (i.e.: untrammeled, natural, undeveloped, and outstanding opportunities for recreation) which make them eligible for future designation as wilderness (BLM, 2016c).

The four characteristics that must be met for designation as a WSA or Wilderness Area:

1. The area must be untrammeled by man. Untrammeled refers to wilderness as an area unhindered and free from modern human control and manipulation. Human activities or actions on these lands impairs this quality.
2. The area must be natural. The area should be protected and managed to preserve its natural conditions and should be as free as possible from the effects of modern civilization. If any ecosystem processes were managed by humans, they must be allowed to return to their natural condition.
3. The area must be undeveloped. No human structures or installations, no motor vehicles or mechanical transport, or any other item that increases man’s ability to occupy the environment can be present.
4. The area must offer solitude or primitive and unconfined recreation. People should be able to experience natural sights and sounds, remote and secluded places, and the physical and emotional challenges of self-discovery and self-reliance.

WSAs are established three different ways: (1) they are identified by the wilderness review as required by Section 603 of FLPMA; (2) they are identified during the land use planning process under Section 202 of FLPMA; (3) or they are established by Congress.

Section 603(c) of the FLMPA requires that WSAs are managed so as not to impair their suitability for preservation as wilderness and strives to retain their primeval character and influence, without permanent improvements or human habitation (BLM, 2016c). However, the FLPMA also requires that mining, livestock grazing and mineral leasing (e.g., grandfathered uses) continue in the manner and degree as they were being conducted in 1976. Therefore, to the extent that grazing was allowed in the wilderness prior to 1976, its use, specifically including allowing the same number of livestock as existed in 1976, should be continued. Grandfathered uses are protected and must be maintained in the same manner and degree as they were being conducted on October 21, 1976, even if they impair wilderness characteristics according to *Rocky Mountain Oil and Gas Association v. Watt*, 696 F.2d 734, 749 (10th Cir. 1982). This requirement includes the authority to develop livestock related improvements (*Utah v. Andrus*, 486 F. Supp. 995 [D. Utah 1979]).





Johnson County has been involved in the Wyoming Public Lands Initiative (WPLI) which is “a voluntary, collaborative, county-led process intended to result in one, multi-county legislative lands package that is broadly supported by public lands stakeholders in Wyoming. The ultimate goal is a new federal law that governs the designation and management of Wyoming’s WSAs; and, where possible, addresses and pursues other public land management issues and opportunities affecting Wyoming’s landscape.” (WPLI, 2015, p. 201) Johnson County has provided recommendations for the North Fork and Gardner Mountain WSAs which are summarized below in the appropriate WSA description. Additional information on the WPLI recommendations can be found [here<sup>2</sup>](#).

### Fortification Creek WSA

Fortification Creek WSA encompasses 12,419 acres of BLM-administered land 36 miles from Buffalo on the eastern border of the County, with a 640-acre state land inholding. This WSA contains elk crucial winter range. The Fortification Creek WSA does not have direct public access and is only accessible by foot or horseback via a nine-mile route off Fortification Road. This WSA is closed to motorized travel and mineral extraction and entry. (BLM, n.d.-b).

The WPLI Committee recommended that the Fortification Creek WSA be released from a WSA and no longer be eligible for Wilderness Designation. The WPLI Committee recommended the area be known as the Fortification Creek Management Area with the following management intentions: (WPLI, n.d.-a)

- Inclusion of a map of the present Fortification Creek WSA showing the exterior boundary.
- Management area represents only federal lands within this boundary.
- No new surface disturbance unless needed for fire suppression.
- No new permanent roads.
- Maintain existing characteristics.
- Existing uses continue such as grazing, hunting, and recreation.
- No motorized or mechanical vehicles allowed other than reasonable fire suppression, weed and pest control, wildlife and stock water, or emergency needs.

### Gardner Mountain WSA

Gardner Mountain WSA encompasses 6,423 acres of BLM-administered land 40 miles from Buffalo, south of Bighorn National Forest. Two important trout waters-fisheries of regional importance flow through the WSA, the Red Fork of the Powder River and Beartrap Creek. The WSA is also fly over habitat for bald eagle and peregrine falcon migration routes. There is no direct public access available for Gardner Mountain WSA, but the area can be accessed via the Gardner Mountain Foot and Horse Trail and cross-country travel. (BLM, 2017a)

The recommendations from the WPLI Committee are that the Gardner Mountain WSA be released from a WSA and no longer be eligible for Wilderness Designation. The WPLI Committee recommended the area be known as the Fraker Mountain Management Area with the following Legislative Management Criteria: (WPLI, n.d.-a)



- Area boundaries as shown on map
- Designation to only affect Federal land with no effect on private or state lands within or adjacent to Fraker Mountain Management Area
- Recommend non-motorized/mechanized vehicle usage except for:
  - Fire suppression
  - Livestock management and infrastructure
  - Forest health and restoration
  - Wildlife habitat management
  - Emergency needs
  - Control of noxious and invasive species
- No energy development or mining leases
- Existing uses continued
- Management purposes are to maintain the area’s non-motorized/back country recreational, cultural, ecological, watershed, grazing, and wildlife values
- No development of new permanent roads

North Fork of Powder River WSA

The North Fork of Powder River WSA encompasses 10,089 acres of BLM-administered land 30 miles from Buffalo, south of Bighorn National Forest. This WSA acts as migration habitat for falcons, hawks, and eagles, and as elk winter habitat. Wyoming Game and Fish Department (WGFD) classified areas in the Powder River as fisheries of statewide importance. There is no direct public access available for North Fork of Powder River WSA as access is controlled by private landowners. (BLM, 2017b)

The recommendations from the WPLI Committee are that the North Fork Powder River WSA be released from a WSA and no longer be eligible for Wilderness Designation. It would be known as the North Fork Management Area with the following Administrative Management Criteria: (WPLI, n.d.-b)

- Area boundaries as shown on map
- Designation to only affect Federal land; no effect on private or state lands within or adjacent to NFMA.
- Recommend non-motorized/mechanized vehicle usage except for:
  - Fire suppression
  - Livestock management and infrastructure
  - Forest health and restoration
  - Wildlife habitat management
  - Emergency needs
  - Control of noxious and invasive species
- No energy development or mining leases
- Existing uses continued
- Management purposes are to maintain the area’s non-motorized/back country recreational, cultural, ecological, watershed, grazing, and wildlife values
- No development of new permanent roads



- No recreational development

## **Wilderness**

### Cloud Peak Wilderness

The Cloud Peak Wilderness lies within the Bighorn National Forest. Motorized and mechanized use is not allowed, meaning access is only possible via foot or horseback. The Cloud Peak Wilderness encompasses approximately 189,000 acres, with 103,000 acres in Johnson County (USFS, n.d.-c).



### **Recommended Wilderness**

A Recommended Wilderness Area is an area the Forest Service has found to meet the characteristics of a wilderness area and deemed suitable for inclusion in the Wilderness System. These areas are recommended to Congress for inclusion in the National Wilderness Preservation System and are managed in a manner that protects and preserves wilderness characteristics until Congress makes its decision. Uses and activities are restricted in the area to maintain these

characteristics. Current permitted activities may continue until designation occurs, unless such activity diminishes the wilderness characteristics. (USFS, n.d.-b)

### Rock Creek Roadless Area

The Rock Creek Roadless Area is located northwest of Buffalo in the Bighorn National Forest and borders the Cloud Peak Wilderness. This area was recommended for inclusion by the USFS in the National Wilderness Preservation System in the USFS 2005 Management Plan. The recommended area encompasses 33,587 acres and, if designated, would be added to the Cloud Peak Wilderness (BHNF, 2005, p. 200).

### **Lands with Wilderness Characteristics (LWC)**

Section 201 of FLPMA requires the BLM to maintain, on a continuing basis, an inventory of all federal lands and their resources and other values, which includes wilderness characteristics. It also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of federal lands. It does not address or affect policy related to Congressionally designated Wilderness or existing Wilderness Study Areas.

The BLM uses the land use planning process to determine how to manage lands with wilderness characteristics as part of the BLM's multiple-use mandate. The BLM will analyze the effects of:

- Plan alternatives on lands with wilderness characteristics, and



- Management of lands with wilderness characteristics on other resources and resource uses.

The Buffalo RMP was updated in 2015 after release of the supplemental draft Environmental Impact Statement (SEIS) and RMP in 2013. There are designated lands managed as LWCs in the 2018 Maintenance Action. (BLM, 2015)

The only area designated as LWC within Johnson County is the 6,865-acre Face of the Bighorns.

### *Inventoried Roadless Areas (IRA)*

Inventoried Roadless Areas (IRA) are portions of National Forest that were identified in the USFS 2001 Roadless Area Conservation FEIS as lands without roads that are worthy of protection. Construction and reconstruction of roads is prohibited in roadless areas unless the USFS determines the road is necessary to protect public health and safety or otherwise meets one of the exceptions listed in the rule. These lands are to be periodically evaluated for potential designation as wilderness based on the availability, capability, and need for these areas to be designated as such. Characteristics of roadless areas include things such as natural landscapes, high scenic quality, and traditional cultural properties. To help preserve the characteristics of Roadless Areas, logging is greatly restricted.

There are nine roadless areas within the BHNF in Johnson County: Roadless Area B029 – Piney Creek, Roadless Area B030 – Little Goose, Roadless Area B032 – Rock Creek, Roadless Area B033 – Grommund Creek, Roadless Area B036 – Hazelton Peaks, Roadless Area B048 – Cloud Peak Contiguous South, and Roadless Areas B054, B056, B057 – Cloud Peak Contiguous East (fragments). A description of each roadless area can be found in Appendix C of the 2005 Bighorn National Forest Final EIS for the Revised Land and Resource Management Plan. (Forest Service: Rocky Mountain Region, 2005)

In 2017, the Bighorn Forest Roadless Collaborative released a final report on recommendations for the roadless areas within the Bighorn National Forest. This report discussed the inconsistencies between the IRAs and the 2005 BHNF Forest Plan. There were two recommendations given to the Wyoming Governor’s Office for consideration. Recommendation 1 was that the BHNF Forest Supervisor, after consultation with the Governor’s Office and the local County Commission and through the NEPA process, may authorize road construction and reconstruction or timber harvest (cutting, sale, or removal) within IRAs using eleven different exceptions that are lined out in the final recommendation report. The second recommendation was that the boundaries of roadless areas in the BHNF should be redrawn in accordance with the inventory completed by the BHNF, with the exception of the Schoolhouse Park/Soldier Park areas west of Highway 16. (Ecosystem Research Group, 2017)

Currently there are 620,663 acres of IRAs within the BHNF, 390 miles of system road in IRAs, and 91,312 acres of suitable timber in IRAs. The collaborative’s recommendation would provide 491,062 acres of IRAs, 11 miles of system road in IRAs, and 46,762 acres of suitable timber in IRAs. (Ecosystem Research Group, 2017)



## **Scenic Routes**

### Cloud Peak Skyway

Also known as US Route 16 in Wyoming, the Cloud Peak Skyway crosses Powder River Pass, the highest pass in the forest at just over 9,600 ft within the southern section of the Bighorn National Forest (Cloud Peak Skyway, n.d.)

### **Resource Management Objectives:**

- A. Designation and management of special designation or management lands are coordinated with Johnson County and adjacent landowners.

### **Priorities:**

1. Ensure that Federal agencies comply with their respective coordination mandates when making wilderness recommendations and developing wilderness inventories.
2. Proposals for ACEC designations should strictly adhere to the relevance and importance criteria, and the BLM should demonstrate, using credible data, the need for an ACEC designation to protect the area in question and prevent irreparable damage to resources or natural systems.
3. Ensure that decisions regarding Wilderness Study Area designation by Congress consider the recommendations put forth by the WPLI Committee.
4. Management of special designation areas should be coordinated with the County and consistent to the maximum degree with the Johnson County NRMP.
5. Support the use of herbicides to control noxious weeds in wilderness areas.
6. Federal agencies consult and coordinate with Johnson County as early as possible when considering the designation of new Areas of Critical Environmental Concern (Wild and Scenic Rivers, National Monuments, Wilderness and Wilderness Study Areas (WSAs), Roadless Areas, and Lands with Wilderness Characteristics (LWCs).
7. Proposed Wild and Scenic River designations analyze impacts to the County's custom, culture, and economy.
8. The County should be notified as early as possible and be included as a cooperating agency if the Secretary of the Interior is considering whether to designate a Wild and Scenic River in the County.
9. The County supports State efforts to petition the USFS for a Wyoming specific Roadless Rule.
10. Restrictive management of roadless areas is discouraged and multiple uses should instead be allowed.
11. Responsible development of natural resources within roadless areas is encouraged.
12. The County supports construction of temporary roads necessary to service natural resource development.





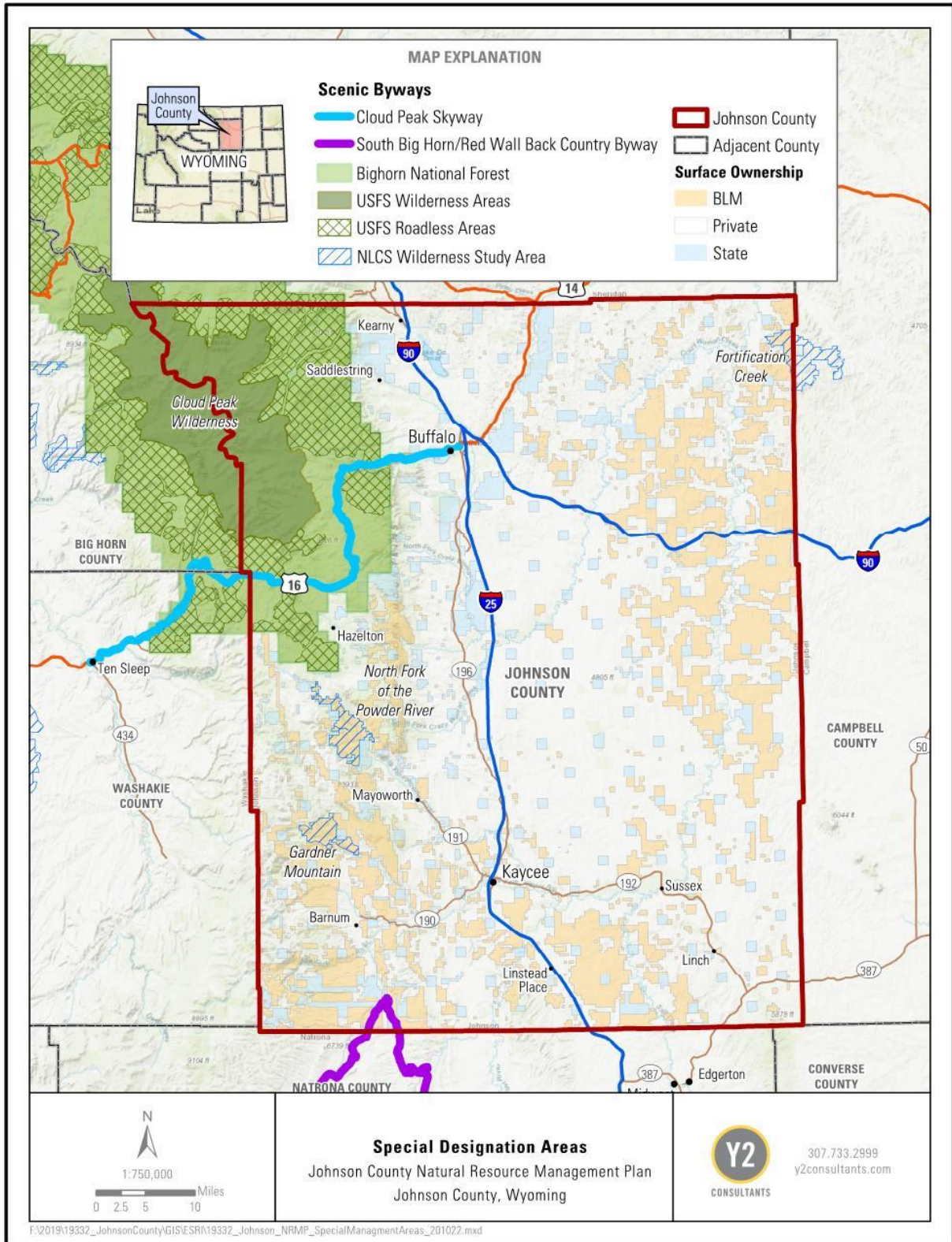


Figure 3. Special Designation Areas within Johnson County.



## 2.4 WILDFIRE SUPPRESSION, FUELS MANAGEMENT, FIRE REHABILITATION AND COMMUNITY WILDFIRE PLANNING

### History, Custom, and Culture

Wildfire is defined as an unplanned, unwanted fire that spreads rapidly and is difficult to extinguish. This includes accidental human-caused fires, unauthorized human-caused fires, escaped fires used as a management tool, and naturally occurring fires. Coal-seam fires have also occurred in Johnson County. Wildfires have damaged the County watershed, timber, grazing lands, wildlife habitat, and recreational activities that rely on healthy forests and rangelands in addition to endangering human health and safety and lost economic opportunities (Figure 4).

### Resource Assessment and Legal Framework

Proactive planning for response to a wildland fire event is critical to the protection of Johnson County; its citizen's health, safety, welfare, and private property; and forest and rangeland health. The BHNH has coordinated with local fire agencies in the past to manage wildfire. A high degree of coordination between Federal, State, and Local agencies is necessary for maximum prevention and suppression of wildfire.

The [2017 Johnson County Community Wildfire Protection Plan](#)<sup>3</sup> (JCCWPP) outlines the goals and objectives for wildfire management across the County. The JCCWPP describes management for each section of the County, and further evaluates action items and previous mitigation efforts. The goals for management include:

- Attain conditions that allow for safe and effective protection from wildfire of all homes in Johnson County, with minimal intervention of the fire service.
- Collaboration of the Fuels Mitigation Group and other interested parties.
- Restore and Maintain Landscapes, and Fire Adapted Communities. (Shell & Johnson County, 2017)

The [Buffalo Municipal Watershed Wildfire Hazard Mitigation Assessment](#)<sup>4</sup> (BW-HMA) created in 2017 focuses on hazard analysis. The city of Buffalo's municipal water supply is sourced from a heavily forested watershed in the Bighorn Mountains and is particularly vulnerable to wildfires. The plan outlines site-specific forest-management treatment areas to prevent or minimize postfire hydrologic impacts in drainage areas that contribute to the municipal supply reservoir and infrastructure for the city of Buffalo. After the BW-HMA was completed, the Bighorn National Forest, along with interagency partners, began implementing the Buffalo Municipal Watershed project, which encompasses approximately 38,000 acres, with timber sales, thinning, prescribed fire, and aspen regeneration treatments. (RESPEC, 2017)

Management of the county's forest resources is important as over-mature, over stocked, and stagnant conifer forests with extensive ladder fuels create wildfire risks. These stressed trees are subject to insects, disease, and fire and may have a negative impact on carbon sequestration. The [2019 Rock Mountain Region Aerial Survey](#)<sup>5</sup> showed that the BHNH is relatively healthy and that there were only a few areas with mortality and/or defoliation (USFS, 2019).





**Table 2. Fire Occurrences in Excess of 100 acres in Johnson County from 2003 to 2020.**

<b>Year of Fire</b>	<b>Fire Name</b>	<b>Acreage</b>
2003	Schoonover Fire	636
2003	Big Spring	4,370
2003	Big Spring	6,471
2003	Ditch Creek	432
2005	The Horn Fire	114
2006	Sawmill	31,352
2006	Outlaw 2	12,745
2007	Petrified Forest	123
2009	DDG 2 Mile	355
2009	Reno Hills	1,585
2010	Petrified	1,022
2010	Albright	2,351
2010	Harriet 2	166
2010	Christiansen	968
2011	Cat Creek	2,276
2012	Moore	115
2012	Gilead	16,062
2012	Jackrabbit	281
2012	Antelope Draw	149
2012	Cato	50,564
2014	West Range	2,288
2015	Antelope Draw	214
2015	Cather	594
2016	Dump	804
2016	TTT	159
2016	Lower Piney	367
2017	Greub Road	207



2017	Mill Iron	187
2017	Tisdale	148
2017	Linch	150
2017	Wallows	502
2018	Evans Draw	178
2020	Eckland Fire	482

**Resource Management Objective:**

- A. Wildfire, fuels, and fire rehabilitation are managed promptly and effectively using credible data in coordination with the [Johnson County Community Wildfire Protection Plan](#)<sup>3</sup> (JCCWPP).

**Priorities:**

1. Federal agencies coordinate with local fire agencies. The USFS shall adhere to all requirements set forth in the Cooperative Forestry Assistance Act 16 USC § 2106.
2. Federal agencies incorporate local fire association plans (Johnson County CWPP, Buffalo Municipal Watershed Wildfire Hazard Mitigation Assessment) into their fire suppression and control plans and support wildfire suppression activities of local fire departments.
3. Fire suppression efforts are maximized through full coordination, communication, and cooperation between federal, state, and local fire-suppression units.
4. The County supports coordination between Federal agencies and the County to promote and optimize fire preparedness within communities across Johnson County.
5. Coordinate with other agencies to implement insecticide and herbicide treatments, livestock grazing, biomass fuel removal, slash pile burning, and prescribed burning as fire control tools.
6. Coordinate and communicate temporary fire restrictions based on fire hazard designations to minimize the potential for human caused wildfires with other suppression entities in the County.
7. Rehabilitate forests and rangelands damaged by wildfires as soon as possible for wildlife habitat and to reduce the potential for erosion and introduction of invasive or noxious weeds. Management tools can include, but are not limited, to livestock grazing, chemical treatment, and mechanical treatments that promote ecosystem health.
8. Support the Department of Interior's Secretarial Order 3336-Rangeland Fire Prevention, Management, and Restoration and require the BLM to comply with the order and subsequent revisions, reports and instructional memos.
9. Consultation and coordination with Johnson County is expected on proposed changes and updates to the Fire Management Plans on federal lands.
10. Allow adaptive grazing management practices and include these practices in term permits, allowing for flexible management practices that decrease fuel loads on the landscape, particularly in areas with heavy grass understory.



11. Post-fire objectives should be consistent with site potential as defined in approved Desired Future Conditions or Ecological Site Descriptions. Require the use of credible data as previously defined to make these determinations.
12. Grazing rest prescriptions related to either wildfires or prescribed burns will be determined on a site-specific basis. Post-fire grazing will not be limited when post-fire monitoring and evaluation produces relevant, accurate data demonstrating that grazing will not unduly harm the range.
13. Promote the prompt rehabilitation of harvested areas and areas affected by wildfire, including salvage logging operations. Temporary roads are allowed and access to additional areas is available through these temporary roads.
14. Coordinate with the County in mapping and management of coal-seam fires.



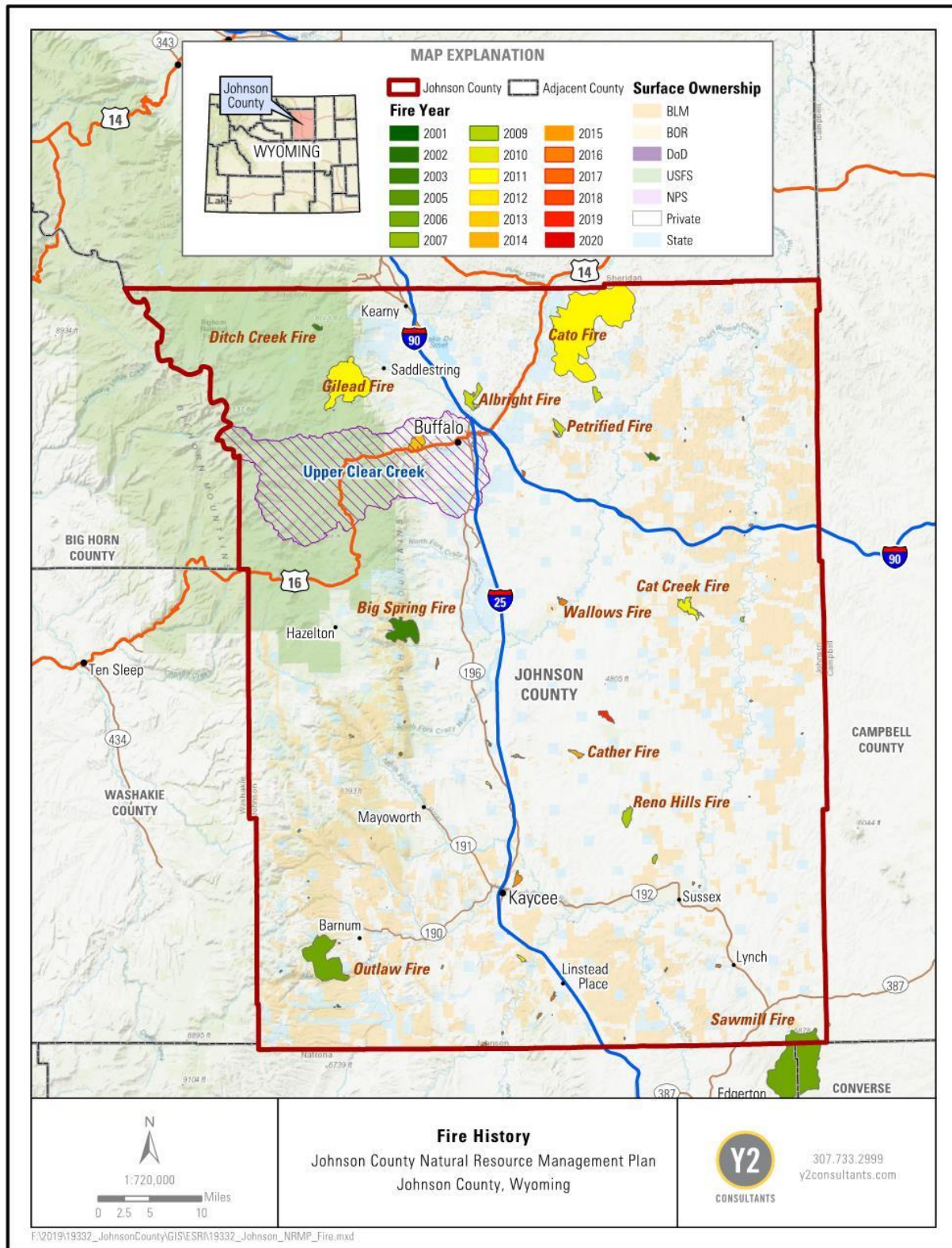


Figure 4. Fire History of Johnson County.



## 2.5 FOREST MANAGEMENT

### History, Custom, and Culture

The beneficial use of forest natural resources has always been a part of Johnson County's economy, customs, and culture. Early citizens relied on forest resources for timber for buildings, corrals, fences, and fuel. Logging occurred through the years on both federal and private lands. Johnson County recognizes that historic logging took place within the County as part of a historic stable timber-harvesting program. A healthy forest ecosystem provides employment and economic benefit for individuals and businesses in the County.

The Bighorn Forest Reserve was established in 1897 and was managed by the Department of Interior until 1905, when the USFS was established. In 1905, the Forest Reserve became the Bighorn National Forest. Timber harvesting in the County historically paid for the maintenance of forest roads and allowed more public access and multiple use of the forests. Johnson County historically had two sawmills on USFS lands which are currently inactive. Currently, the main harvesting of forest products includes commercial timber harvest, firewood, posts and poles sawtimber, sawlogs, and Christmas trees (USFS, n.d.-d). However, several timber sale contracts have been issued and fuels mitigation projects in the wildland urban interface are being conducted.

In 2019 the Bighorn National Forest offered 17,903 cubic feet of timber and 3,256 cords of firewood for sale. Additionally, there were 2,584 Christmas tree permits issued. (USFS, n.d.-a)

### Resource Assessment and Legal Framework

Forested lands within Johnson County are 75% federal and 25% State and private. Most forested public lands are concentrated in the southern Bighorn Mountains and along the eastern face of the Bighorns. Forested public lands are valuable for wildlife habitat and protection of watershed and recreational values. Commercial species on forested BLM lands include ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), Englemann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), and lodgepole pine (*Pinus contorta*). There are currently 329,986 acres of USFS forested lands, 58,259 acres of BLM forested lands, and 92,729 acres of State and private forested lands. Out of the 329,986 acres of USFS forested lands approximately 32% (104,011 acres) are in Wilderness and an additional 134,428 acres (41%) are in Roadless Areas, meaning that 73% of USFS forested lands in Johnson County are not managed for commercial timber resources. Out of the 58,259 acres of BLM forested lands, 26,741 acres or 46% are in Wilderness Study Areas and Lands with Wilderness Characteristics. Of the 388,24 acres of federal forested lands within the county approximately 68% or 265,180 acres are not available for commercial timber harvesting. (Wyoming State Forestry, personal communication, 2020)

Within the Buffalo Municipal Watershed there are 71,865 acres of which 47,802 acres or 67% are in Wilderness or Roadless designation. More information on roadless areas within the county can be found in the above [Section 2.3 Special Designation and Management Areas](#).





### Resource Management Objective:

- A. Forest lands are managed under multiple use that promotes the timber industry, grazing, fuels management and recreation and benefits the economy of the county's communities.

### Priorities:

1. Encourage policies that support the timber industry and provide continued economic benefit to the citizens of Johnson County. Forest management shall follow the mandates of the OAA and adhere to MUSY, as well as the NFMA, NEPA, and the ESA.
2. It is the desire of the County to sustain all forest roads within the designated 2005 RACR, so there is no net loss of roads within these designated areas.
3. Forest management should support coordinated timber harvest and thinning methods and/or prescribed fire to promote forest health, reduce disease and insect infestation, reduce wildfire impacts, and prevent waste of forest products while supporting the economy of Johnson County for future generations.
4. Salvage harvest when necessary due to insect/disease epidemic, blowdown, or post-fire situations using the appropriate categorical exclusions.
5. The County supports federal Payments in Lieu of Taxes (PILT) to Johnson County.
6. Access to forest products such as firewood, building materials, and Christmas trees should be ongoing. Access to these sites should be through an open roads and cross-country travel system.
7. Agencies within the County use the authority granted under the Healthy Forests Restoration Act, Healthy Forests Initiative and Good Neighbor Authority to expedite cross-boundary/agency planning, collaboration processes and project implementation to economically and efficiently treat and protect timber resources within Johnson County.
8. Forest management projects are coordinated and communicated among local land management agencies, including federal, state, private, and county lands to improve the scale and scope of each project.
9. Support the use of the Wyoming Forestry Best Management Practices (BMPs) and Water Quality Protection Guidelines for vegetation treatments.



## 2.6 LAND EXCHANGES

### History, Custom, and Culture

Exchanging private land or state land for public land is one way that agencies can improve their management of public lands and allow public access to said lands. FLPMA granted the USFS and BLM power to conduct land exchanges with private property owners and established five requirements for the process:

1. Acquisitions must be consistent with the mission and land use plans of the agency
2. Public interests must be served by the land exchange
3. An agency may accept title to non-federal land if the land is located in the same state as the federal land for which it is being exchanged and the agency deems it proper to transfer the land out of federal care
4. The lands to be exchanged must be equal in value or equalized through the addition of a cash payment, but a cash payment may not exceed 25% of the total value of the federal land
5. Land may not be exchanged with anyone who is not a U.S. citizen or a corporation who is not subject to U.S. laws (BLM Handbook, 1-1, 1-2)

The process for land exchanges begins with a proposal (by an agency or private landowner) of an exchange by an agency to a private landowner. The proposal then goes through multiple analysis and review phases to assure its compliance with the laws and regulations controlling such an exchange. After the review process is complete, an agreement to initiate is signed by both parties which outlines the scope of the exchange and who will be responsible for what costs in the procedure. (USFS Guide to Land Exchanges)

The parties are expected to share equally in the costs of a land exchange, but specific requirements may vary between agencies. The USFS requires private landowners to pay for title insurance, advertising, hazmat cleanup, and land surveys at a minimum. The Forest Service usually pays for appraisals. (USFS Handbook, 27-28). However, the BLM may share in some of these specific expenses if the total costs are apportioned in an equitable manner. (BLM Handbook, 3-1 through 3-8).

Next, an appraisal must be done on each parcel to determine their respective values and assure that the properties are capable of being exchanged. At this point the agency and private landowner sign a formal exchange agreement binding them to the exchange. The plan is then subject to final review before being completed. During the exchange process NEPA review must also be completed. The exchange must follow NEPA procedures to determine environmental impacts of the exchange, including scoping, environmental assessment, notice and comment, and appeals. (USFS Guide to Land Exchanges).

The USFS can also perform land exchanges under Title III of the Bankhead-Jones Farm Tenant Act (BJFTA) for parcels situated in National Grasslands. These lands are commonly called "Title III Lands." Title III requires the USFS to determine that an exchange will not conflict with the





purposes of the BJFTA and that the values of the properties are “substantially equal.” If the USFS can show through a determination of consistency that the exchange does not conflict with the purpose of the BJFTA, it “may be completed without a ‘public purpose’ reversionary clause.” (USFS Handbook, 21).

Land exchanges can be used to alter the checkerboard of federal and private land, allowing lands to be consolidated by ownership type and reducing the amount of federal land that is isolated from other public ground. This allows for a more uniform management plan of USFS and BLM land and can create public access opportunities that were previously impossible due the landlocked nature of such parcels and the lack of easements on neighboring private lands. Land exchanges can also be used to allow community development or other purposes that provide great value to the public interest. Exchanges usually take two to four years, but the process can be extended considerably if complications arise with NEPA, land valuation, or ESA.

Several land exchanges between private, State, and public lands have occurred within Johnson County in recent years which has allowed more public access to areas. In most cases the surface ownerships are exchanged but the sub-surface mineral rights stay with the private landowner.

### **Resource Assessment and Legal Framework**

The Bighorn National Forest RMP considers the possibility of land exchanges, outlining the need to balance resource values, pursue management goals, and consider effects on sensitive species. The plan also highlights the usefulness of land exchanges in reducing adverse impacts to lynx. The RMP provides guidelines for land adjustment activities:

- Reduction of Forest Service administrative costs and improvement of management efficiency. This includes: reducing miles of landline boundaries and number of corners, eliminating potential encroachments, special uses, title claims, rights-of-way grants and easements, numbers of allotments and intermingled ownership livestock pastures, and other factors which decrease administrative costs and improve management efficiency.
- Reduction of conflicts between Forest Service and private landowner objectives, especially when conflicts are adversely impacting National Forest System management. (Bighorn National Forest RMP, 1-45, 1-62, 1-63).

### **Resource Management Objective:**

- A. Land exchanges that are mutually beneficial to private landowners, Federal and state agencies, and the public are completed in a timely and cost-efficient manner.

### **Priorities:**

1. Federal agencies proactively identify potential land exchanges that will consolidate land ownership type and reduce isolated federal land parcels.
2. Federal agencies prioritize land exchanges in areas where there may be resource or management conflicts between federal managers and the neighboring private or state landowners.



3. Voluntary land exchanges and or other similar programs are pursued as a primary way to encourage access to landlocked federal lands as opposed to the use of eminent domain or other involuntary methods.
4. Federal agencies should attempt to consolidate and combine land exchanges when possible to reduce overall costs. However, such consolidations should not cause undue delay on smaller land exchange proposals.



## CHAPTER 3: GEOLOGY, MINING, AND AIR

### 3.1 GEOLOGY

Johnson County has a rich geologic history. There are many locations throughout the County where geologic formations exist and display the history of the area. These canyon and mountain formations contain cultural and recreational value.

Paleozoic Era rock reflects a marine transgressive/regressive deposition; these formations are dominated by marine formations with occasional sandstones and shales from beach and shore conditions. Erosion during this time created gaps in the formations. The early Mesozoic Era was characterized by shallow seas that deposited sandstones, siltstones, and shales. These depositions are the Dinwoody, Chugwater, Gypsum Springs, and Sundance formations. (Libra et al., 1981)

A transition to a terrestrial environment occurred during the Jurassic Period, and shales and sandstones of the Morrison Formation were deposited in shallow marine and marshy environments. During the Cretaceous Period thousands of feet of interbedded sandstones and thick shales were deposited under terrestrial, eolian and fluvial conditions. These Cretaceous formations include; the Cloverly, Mowry – Thermopolis, Frontier, Cody, Mesaverde, Meeteetse, and Lance formations. (Libra et al., 1981)

The Bighorn Mountains were formed in the late Cretaceous period. Mountains uplifted by compressional forces, provided a source for the more than 10,000 feet of Tertiary sediments. These deposits are comprised of conglomerates, sandstones, and shales that were deposited in alluvial fans, streams, or lake environments. (Blackstone, Jr. & Huntoon, 1984)

The Bighorn Mountains in the northwest portion of Johnson County contain older Pre-Cambrian rock as well as Paleozoic and Mesozoic sedimentary rocks. From the southwestern County border to Interstate 25 Mesozoic sedimentary rocks dominate the geology. Cenozoic sedimentary rocks characterize the rest of the County. (Clear Creek Conservation District, 2017)

The most recent deposits are primarily alluvial and terrace deposits, with glacial influence, occurring primarily in the Pleistocene and Quaternary periods.



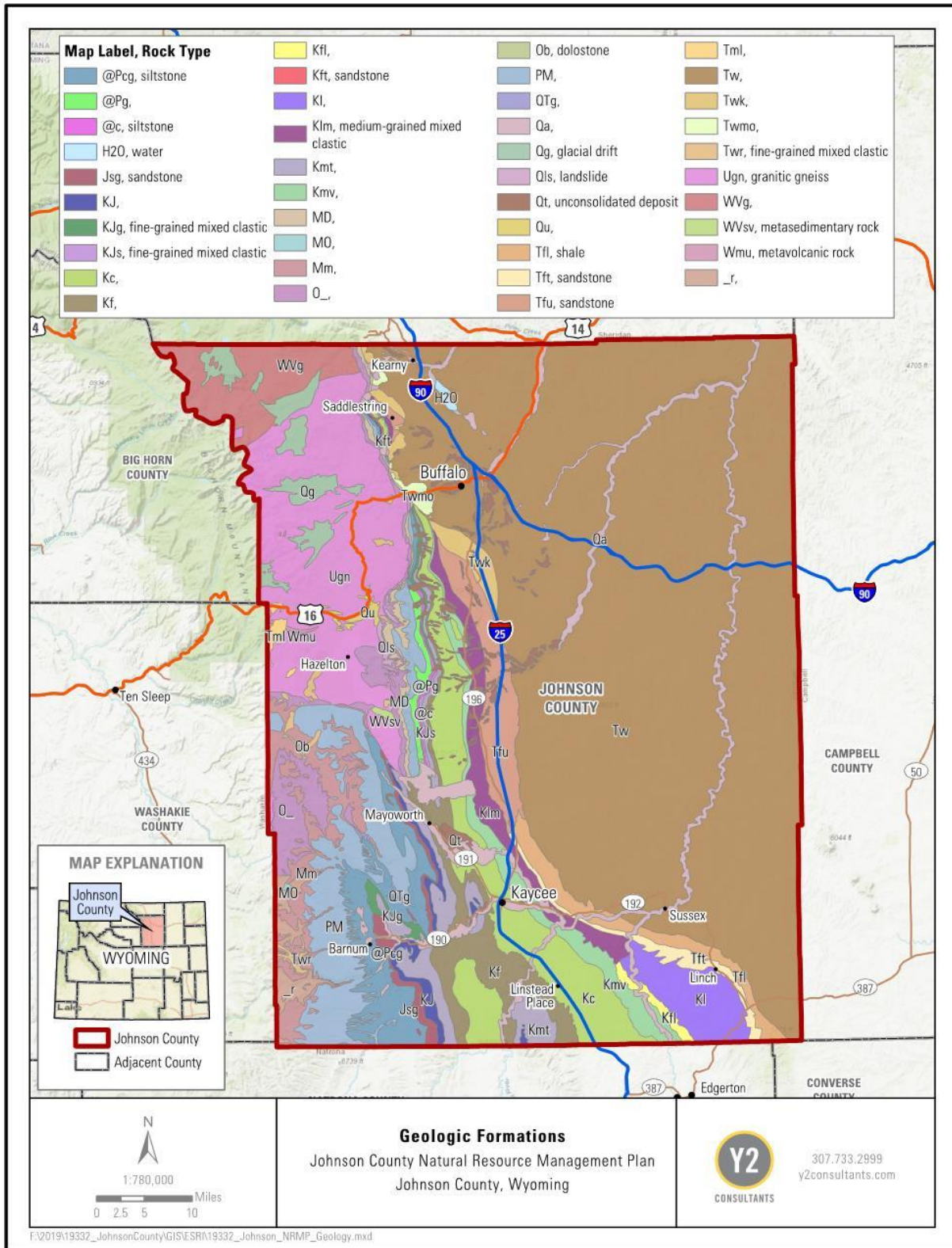


Figure 5. Johnson County Geologic Formations.



## 3.2 SOILS

### History, Custom, and Culture

Healthy soils sustain plant communities, keep sediment out of streams, and dust out of the air. Land managers of federal lands are mandated to manage soils and vegetation to ensure land-health standards are maintained and to safeguard sustainable plant and animal populations (NRCS, 2018). Soil type dictates the vegetation within an area, which determines the area’s uses, productivity, resistance to disturbance, and scenic quality. The two Conservation Districts within Johnson County work to promote the conservation of soil and water resources within the districts. See [Section 2.1 Land Use](#) for more information.

Anthropogenic land disturbance as well as wildfire can influence soil quality. Soil issues arising from both anthropogenic and natural causes include erosion, drainage, invasive species, soil compaction, salination, and loss of vegetation. (NRCS, 2018)

### Resource Assessment and Legal Framework

#### *Soil Surveys*

Soil surveys provide detailed information on soil limitations and properties necessary for project planning and implementation. Soil surveys document soil properties and distribution to monitor and understand the impacts of various uses. There are five levels or “Orders” of soil surveys depending on the level of detail involved. Order three is typical for most federal lands projects which do require onsite investigations by expert soil scientists for site specific project related activities or projects (USDA: Soil Science Division Staff, 2017). Soil survey reports, which include the soil survey maps and the names and descriptions of the soils in a report area, are published by the USDA NRCS and are available online through Web Soil Survey (NRCS, n.d.-b). The soil survey mapping of Johnson County is current and published to Web Soil Survey (NRCS, n.d.-a). The Bighorn National Forest also has a soil survey that was completed in 1986 (Nesser, 1986). The general soil map units for Johnson County are depicted in Figure 6 below.

#### Resource Management Objective:

- A. Soil quality and health is maintained and conserved through best management practices.

#### Priorities:

1. Support projects and policies which improve soil quality and ecology.
2. Support erosion control as a means of flood control.
3. For new soil disturbing projects, support implementation of BMPs to manage runoff, preservation and maintenance of topsoil, and stabilize soils on site.
4. Land use designations that eliminate or reduce the opportunity for implementation of practices that can improve soil health are not supported.
5. Johnson County supports and encourages the use of natural processes as key to site reclamation for soil health and biodiversity. Encourage the implementation of BMPs for watershed management.
6. The County encourages the removal of drill mud from drill sites to designated waste sites.





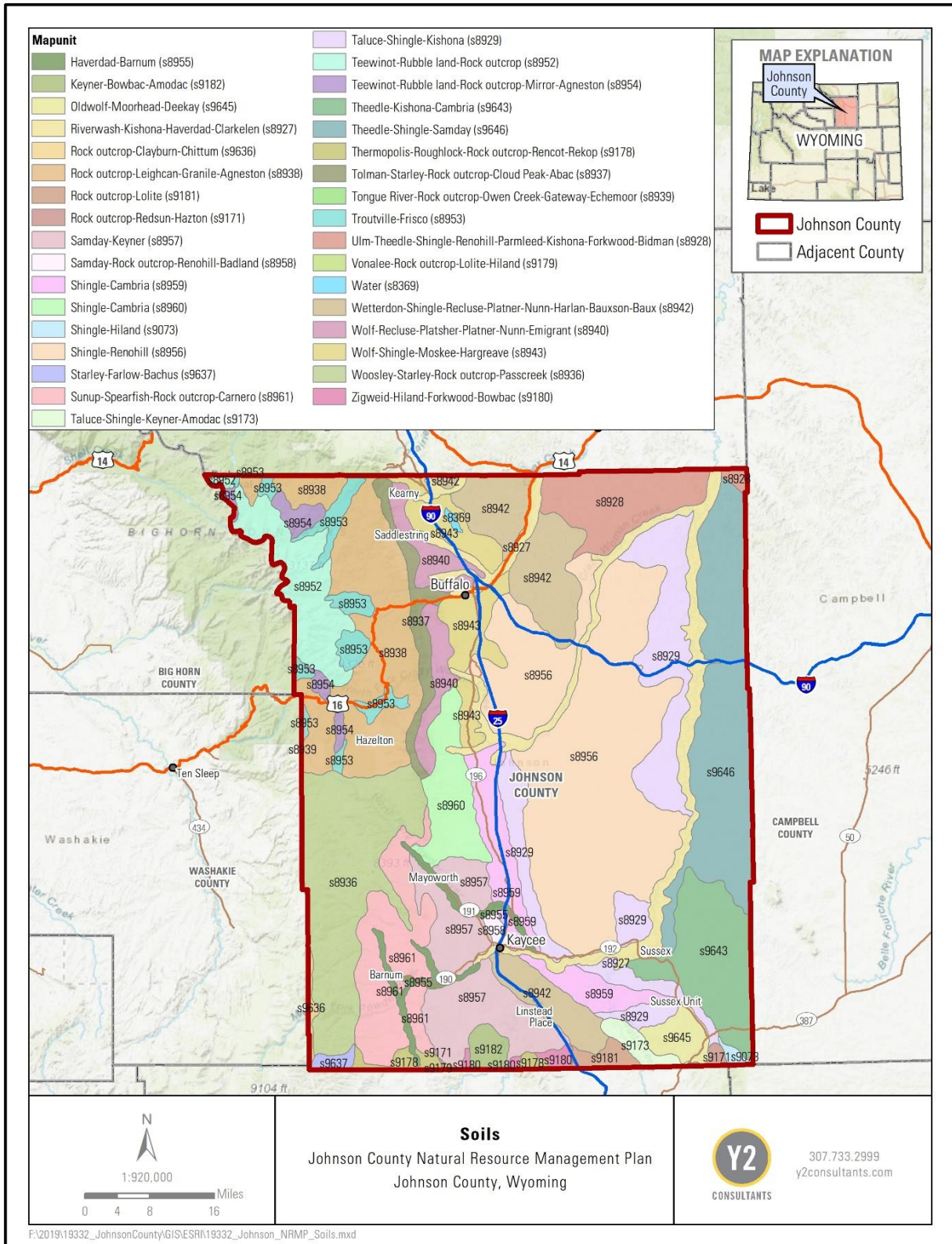


Figure 6. Soils Mapped for Johnson County.



### 3.3 MINING & MINERAL RESOURCES

#### History, Custom, and Culture

Mineral production, namely coal, has been part of Johnson County's culture for over 100 years. Mining is one of the historical uses of federally managed lands, predating the establishment of the USFS and BLM. Maintenance of such use is statutorily compatible with multiple use principles. Energy (i.e. coal, oil, and gas) production is a large corner of industry in Johnson County and provides jobs to hundreds of people throughout the region. This industry serves a crucial role in the development of the County.

Production of minerals, and associated economic and cultural activity, have historically waxed, and waned with demand and pricing, but mining remains a significant portion of Johnson County's domestic production. There are 21,000 records of mining claims managed through the BLM and 348 records of mines listed under U.S. Geological Survey (USGS). Of the listed claims, 7% are active (The Diggings, 2020).

Other minerals present in the County include uranium, bentonite, granite, limestone, scoria, sand and gravel, marble, gneiss, gypsum, and amphibolite (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005).

#### *Coal*

Coal seams in Johnson County are too deep for strip mining. However, there has been exploration and some production spikes from coal-bed methane. In the early 2000s, coal-bed methane was huge in the Powder River Basin and for a time this area was the largest producing natural gas field in the state, at more than 1 billion cubic feet per day. (Bleizeffer, 2015; Farquhar, 2014)

#### *Uranium*

Uranium was first discovered in the Pumpkin Butte area in 1951, by J.D. Love of the U.S. Geological Survey (Gregory, 2016). Uranium deposits in Johnson County are located within the Fort Union and Wasatch Formations. The uranium occurs in roll front type deposits found at the boundary between reduced and oxidized sandstone. To date, approximately 7 million pounds of uranium have been recovered from within Johnson County. There are currently two permitted uranium in-situ recovery (ISR) facilities within Johnson County, Willow Creek ISR Project and Nichols Ranch ISR Project. In addition, there are several known prospects within the Pumpkin Butte and Kaycee Mining Districts. ISR mining utilizes in-situ chemical dissolution to recover uranium using injection and production wells completed in the mineralized sandstone.

#### *Bentonite*

Bentonite deposits in Wyoming comprise about 70 percent of the world's known deposits (Sutherland, 2014). Bentonite mining within Johnson County occurs in the Kaycee District, located west and southwest of Kaycee. Deposits can be found in the Frontier Formation, Carlile Shale, Greenhorn Formation, Belle Fourche Shale, Mowry Shale, Aspen Shale, Muddy Sandstone, Newcastle Sandstone, Thermopolis Shale, Skull Creek Shale, and Bear River Formation. The





highest quality Wyoming bentonite is found primarily in the Upper Cretaceous Mowry Shale (Clay Spur Member).

Bentonite is a fine clay material mined from the earth, formed by the decomposition of volcanic ash deposited millions of years ago in an ancient inland seaway. It is widely used as a drilling mud additive for oil, natural gas, and water wells; other uses include cat litter, cosmetics, a binding agent in animal feed, and a foundry-sand bond in iron and steel foundries. For economic reasons, surface mining generally extends to depths no greater than 50 feet. Bentonite mined from open pits is blended, ground, dried, and processed into various products at several mills in the state.

### ***Granite***

Granite is found in the northwest corner of Johnson County in the Big Horn Mountains. This rock material is suitable for use as decorative and dimension stone, as well as decorative construction aggregate. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

### ***Gneiss, Amphibolite, Marble, and Other Minerals***

Rock outcrops of gneiss, amphibolite, marble, and other minerals are also evident in much of the Bighorn National Forest, as well as on some private and State lands between Buffalo and the Bighorn National Forest. These materials are also suitable construction aggregate, e.g. railroad ballast. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

### ***Limestone***

Limestone-bearing outcrops are primarily located along the west border and southern half of Johnson County. Limestone is a calcareous chemical precipitate. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

### ***Scoria***

Scoria is derived from coal-bearing rocks that are baked or partially melted by naturally ignited coal fires. This process is considerably more prevalent in areas where coal occurs at or near the surface of the land. Most scoria material in Johnson County is situated within 10 to 15 miles north and east of Buffalo. Scoria is used for construction aggregate and some decorative uses. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

### ***Sand and Gravel***

Larger sand and gravel deposits are found from 8 to 15 miles northwest of Kaycee. However, other deposits are found along and within the Powder River drainage, Clear Creek, Crazy Woman Creek, Salt Creek, and Piney Creek.

The use of sand and gravel is well known for the construction of building foundations, roads and highways, and other site work. In Johnson County, roughly 70% of the county roads are constructed of gravel. Johnson County has been able to use gravel for most county road construction because of the availability and accessibility to gravel in the general vicinity of



Buffalo. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

### **Resource Assessment and Legal Framework**

The County supports the production of all minerals in an environmentally responsible manner by providing infrastructure and services such as roads, bridges, medical services, and law enforcement. The existing governmental regulatory process has limited development due to necessary collaboration between Local and State authorities. Entities such as the Wyoming Oil and Gas Conservation Commission (WOGCC), BLM, USFS, and Wyoming Department of Environmental Quality (WDEQ) are critical to the development of hydrocarbon reserves but can potentially hinder the development of these resources. Improved relations with these agencies are a crucial element for increasing access to new reserves. To secure economic longevity and prosperity of the County, these challenges and interface issues need to be streamlined.

The Congressional Act of July 26, 1866 and the General Mining Act of 1872 granted all American citizens the right to go into the public domain to prospect for and develop minerals. Every mining law or act enacted since then has contained a “savings clause” that guarantees that the originally granted rights will not be rescinded. These laws are applicable in Johnson County. Johnson County’s policies for mineral development are structured to increase the exploration, development, and production of mineral and energy resources within the political jurisdiction of the County. Primary objectives of the County are to establish partnerships with mineral industries and Federal agencies, to increase and share knowledge of the mineral estate, and to develop and foster trust among partners. Through these relationships, the County plans to encourage development of mineral and energy production countywide.

#### **Coal**

Most coal reserves in Johnson County are located east of Interstate 25 in the Powder River Basin. The depths to coal deposits vary greatly throughout the county and are generally not considered mineable. However, there are many coal seams which may contain significant natural gas reserves that could contribute to the economy of Johnson County. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005) There are 39 listed coal leases on public lands in Johnson County. All leases are closed. (Coal Fields, n.d.) Currently, there are 4,980 permits that have been issued for coal-bed methane within Johnson County on federal lands. However, the majority of these are completed wells or expired permits. (WOGCC, 2020)

#### **Uranium**

BLM is responsible for administering the laws and regulations regarding the availability of all locatable minerals on federal lands, including uranium, as specified under the General Mining Law of 1872, as amended, 43 CFR Parts 3700 and 3800, and the FLPMA. Under these laws and regulations, the BLM is obligated to allow claim holders to develop their claims subject to reasonable restrictions including the restriction that unnecessary or undue degradation may not occur [43 CFR § 3809.411(d)(3)].



BLM authority for land management is derived from the FLPMA. General BLM regulations are described in 43 CFR Subtitle B - Regulations Relating to Public Lands, Chapter II - BLM, USDO. The BLM regulations for the management of mining are included in 43 CFR Subpart 3809, Surface Management, and derive their mandate from Sections 302 and 303 of the FLPMA. Subpart 3809 established procedures and standards for mining claimants to prevent public land degradation and requires reclamation of disturbed areas. It also requires coordination with applicable Federal and State agencies. For operations on public lands other than casual use, 43 CFR 3809 requires BLM approval of a Plan of Operations, a full environmental review, and reclamation bonding.

Uranium mines in Wyoming are permitted through the Wyoming Department Environmental Quality (WDEQ) Land Quality Division and licensed through the WDEQ Uranium Recovery Program.

### ***Bentonite***

All bentonite mines in Wyoming are required to obtain a mining permit from WDEQ-LQD. Small mining permits limit operations to not more than thirty-five thousand (35,000) yards of overburden, excluding topsoil, and ten (10) acres of affected land in any one year.

General mining law discussed above is relevant for bentonite mining as well.

### **Resource Management Objective:**

- A. The extraction of coal, oil, gas, bentonite, uranium, and other minerals within the County are continued in a sustainable and ecologically healthy way.
- B. Use of clean and efficient coal powered electricity continues in the County for as long as coal is the most affordable and efficient source of power in the County.

### **Priorities:**

1. Support streamlining permitting processes for new activities within Johnson County to allow for more exploratory drilling and mining and improved access to reserves.
2. Support consideration of all lands within the political jurisdiction of Johnson County as open to mineral exploration and extraction unless specifically precluded by federal, state, or local law.
3. Proposals and decisions to close lands to mineral exploration or extraction is coordinated with the County prior to closure to consider the impact such closure will have on the County's economic viability and resolve potential conflicts with County plans and policies, as required by federal and state law.
4. Decisions pertaining to mining and energy resources within the County affect the health, safety, and welfare of its citizens and the County requests to be notified and be allowed to join as a cooperating agent for proposals affecting mining and mineral resources as early in the process as is allowed by federal law.
5. Require that public lands will be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands, including implementation of the Mining and Minerals Policy Act of 1970.



6. Require regular (where regular is defined as not less than bi-monthly) updates on the permit status for current and proposed projects within the County's jurisdiction and support reasonable timelines and explanations for issuance of delays from permitting agencies.
7. Federal land use and management plans should contain a thorough discussion and evaluation of energy and mineral development, including the implications such development may have on surface land uses and the County economy. Additionally, all plans should demonstrate an understanding of the County's plans and policies and resolve conflicts with the County's plans.
8. Exploration, development, and mining on federal lands in the County with mineral or energy potential should be governed by adherence to laws which pertain to mining and energy development and production, including but not limited to the General Mining Law of 1872, as amended, FLPMA, and 43 C.F.R. § 3809.
9. Lands not lawfully withdrawn from mineral exploration and development remain available for their designated use. These lands are developed in an orderly manner to accommodate exploration, development, and production. These activities are performed in a manner consistent with the Mining and Mineral Policy Act of 1970.
10. Relevant agencies shall protect the rights of access, occupation, and property of anyone prospecting and/or developing minerals within Johnson County as required by federal and state law so long as protection of such rights do not infringe upon the rights of surface owners through the Wyoming Split Estate Act.
11. The County should be notified early of any proposed closures of prospect and mining of mineral resources and closures shall be coordinated with the County as a cooperating agency.
12. Encourage simultaneous or sequential mineral development with other resource uses in accordance with multiple use management principles in Johnson County, weighing and balancing established mineral rights with other multiple uses in the development coordination process.
13. Encourage mining reclamation to use best management practices (BMPs) instead of requiring restoration to as near the same condition as original. Consider nonnative seeding where beneficial. Mining reclamation and restoration in special management areas is considered on a case-by-case basis.
14. Federal agencies consult with the Johnson County Weed and Pest District to develop a weed management plan for mining and reclamation activities.
15. The County is informed of proposed timelines for decisions involving minerals.
16. The County supports following Secretary of the Interior Order 3355.
17. Ensure that existing air, water, and land quality be maintained and not diminished because of new mineral development activities.
18. Encourage Federal and State agencies to inform the County of mining claims, exploration permits, and applications for permits to drill to the extent allowed by law.
19. Support the continued responsible use of coal as an energy source and its transmission into the area.



20. Encourage implementation of new technology to provide for cleaner, more efficient use of coal in the refinement process.
21. Support the continued use of coal energy.
22. Support the development and improvement of current and future infrastructure for the transmission of coal powered energy.
23. Support and encourage research and development of other uses for coal beyond energy.
24. Energy generated from coal should be transmitted and stored in ways that limit risks to the environment and residents of the County.
25. The County should be involved as a cooperating agency as early as possible in Federal agency action intended to downsize the coal industry in the County.
26. Federal agencies should make the County aware of decisions or actions that could limit, impede, or increase the cost of coal energy brought into the County and allow the County to participate as a cooperating agency early in the process for all such decisions.
27. Encourage proper mitigation of closed mines throughout the County using existing ecological sites to help determine mitigation methods of the area.
28. The County does not support Superfund sites (overview of Superfund can be found [here](#)).

## 3.4 ENERGY RESOURCES

### Oil and Gas

#### *History, Custom, and Culture*

Oil and gas production have contributed to Johnson County's taxable income for over 100 years. In the late 1880s oil exploration began in the Salt Creek Basin. Gas production started in the Billy Creek Field, southwest of Buffalo, in 1923, in the Sussex Field in 1948, and two years later in the Meadow Creek Field. The West Sussex Field followed in 1952. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

In the past decade there have been developments in secondary and tertiary production methods that have made previously depleted fields economically feasible to re-produce and re-complete. From these advances there has been an increase in statewide oil production in the past decade. Conversely, overall natural gas production has declined. The County has seen gradually decreasing trends in overall oil production over the past 35 years. Prior to 2000, gas production fluctuated near one million MCF (million cubic feet); from 2000 to 2009 gas production grew rapidly, peaking at 359 million MCF in 2009. Since its peak gas production has declined, producing only 5.5 million MCF in 2019. (Figure 6) (Drilling Edge, 2020) These trends in decline and growth are tied to existing economic conditions at the county, state, and national levels (see Figures 7 and 8).



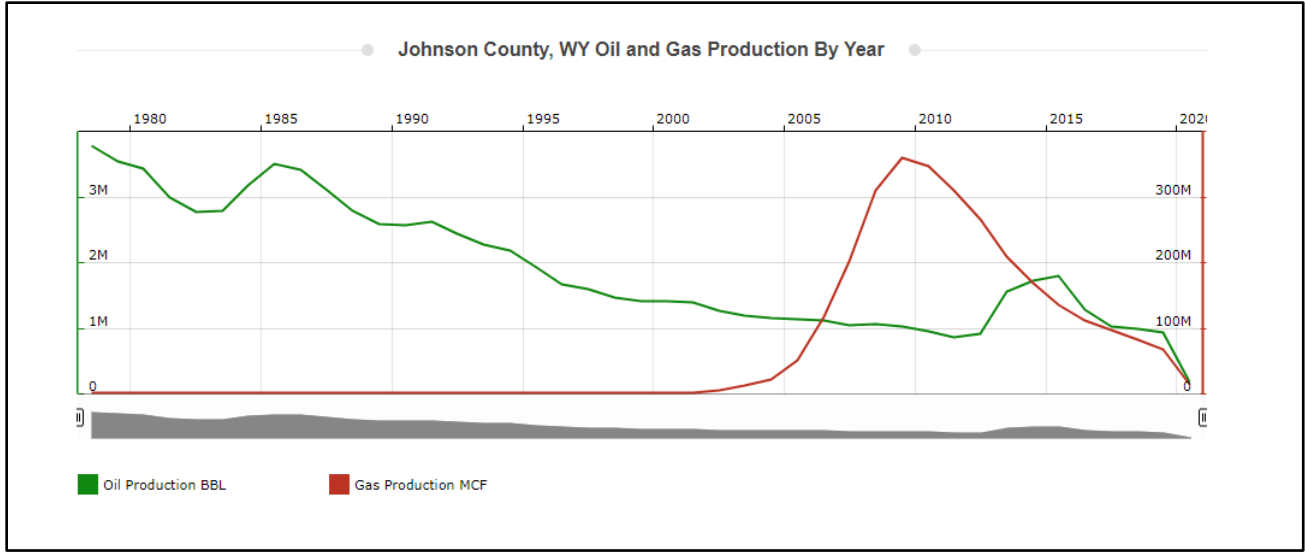


Figure 7. Oil and Gas Production in Johnson County from 1980 to 2020

### Wyoming Oil Production for 1978-2018

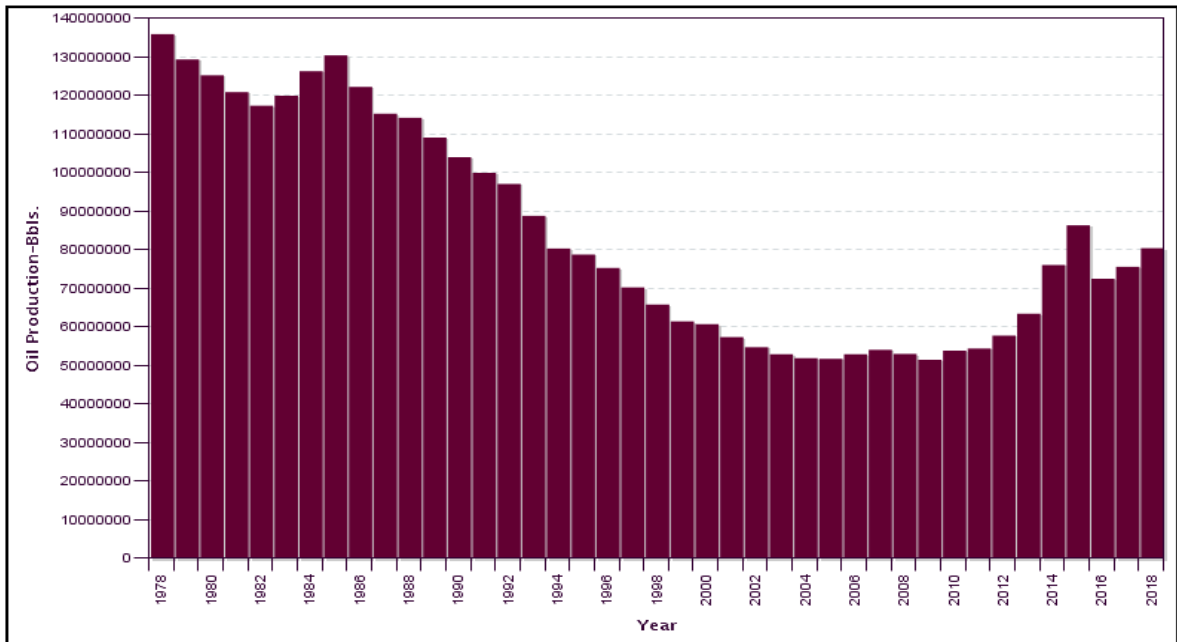


Figure 8: State of Wyoming Oil Production Trends (1978-2018). (WOGCC, n.d.-a)



## Wyoming Gas Production for 1978-2018

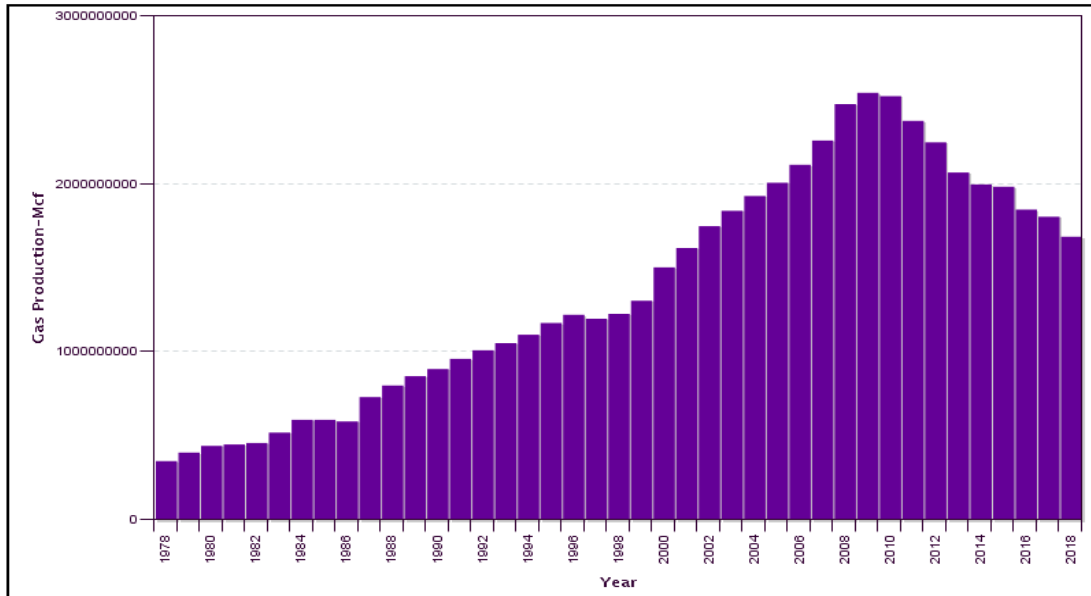


Figure 9: State of Wyoming Gas Production Trends (1978-2018). (WOGCC, n.d.-b)

### Horizontal Wells

Horizontal development for oil and gas began in the late 1990's with technology accelerating in the mid-2000's. Currently there are 69 horizontal wells in Johnson County (WOGCC 2020). These wells have produced approximately 6.8 million barrels of oil and 9.3 million cubic feet of gas. Wells within Johnson County are completed in the Sussex Sandstone, Curtis, Mowry Shale, Niobrara Formation, Tensleep Formation, Frontier Formation, and Shannon Sandstone. Horizontal wells are permitted through the Wyoming Oil and Gas Conservation Commission (WOGCC). Wells completed on federal surface or producing from federal minerals also require permitting through the appropriate Federal agency.

### **Resource Assessment and Legal Framework**

The extraction of oil and natural gas from deposits is accomplished in three central phases of recovery: primary, secondary, and enhanced or tertiary recovery. Primary recovery relies on initial underground pressure to drive the product to the surface. As pressure falls, artificial lift technologies are used to bring the product to the surface. Occasionally the need for artificial lift is eliminated in the case of the artesian, or over-pressured, reservoir. Typically, only 10% of a reservoir's original oil in place is produced through primary recovery. Secondary recovery methods, such as water or gas injection, can extend a field's productive life and result in the extraction of an additional 20-40% of the original oil in place. Enhanced oil recovery techniques offer the potential to produce 30-60% more oil. These techniques include thermal recovery, hydraulic fracturing, gas injection, chemical flooding, or horizontal development.

Horizontal development is likely the future of oil and gas in Johnson County. There have been a few extremely productive horizontal developments within the county.





Gas production is similar to that of oil. The primary phase of production is driven by initial reservoir pressure and decreases as this pressure and reserves in place are reduced. The production of gas can be augmented in a manner similar to oil. Enhanced or tertiary recovery of gas can be further augmented through the utilization of fracturing and other stimulation methods. Enhanced recovery methods are limited by costs and unpredictable effectiveness. These methods have improved drastically over the past decade allowing for more cost-effective and efficient recovery.

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give the BLM responsibility for oil and gas leasing on BLM, USFS, and other federal lands, and on private lands where mineral rights have been retained by the Federal government (split estates). The BLM is a multiple use agency and must balance the development of mineral resources in the best interest of the country. The BLM must manage for uses like livestock grazing, recreation, and development and conservation of wildlife habitat. The USFS regulates all surface-disturbing activities on USFS land, (30 U.S. Code § 226 (g)). The USFS is the lead agency applying stipulations on leasing of USFS land and conducts environmental analysis for leasing and permitting activities on these lands.

***Resource Management Objective:***

- A. Oil and gas extraction are managed in a responsible way that promotes the County's economic viability along with the health of ecosystems and citizens of the County.

***Priorities:***

1. Support streamlining permitting processes for new drilling activities within Johnson County to allow for more exploratory drilling and improved access to reserves.
2. The County is informed of potential uses of county roads and resources from oil and gas activities and the associated impacts to those resources.
3. Pursue opportunities to encourage the nomination of more leases for sale.
4. Prioritize approval of secondary and enhanced (tertiary) recovery methods where possible (e.g., fluid, gas, and steam injection) to extend the production life of a field, while maintaining air quality and available water for agricultural and domestic use.
5. Encourage implementation of new technology and advanced production techniques to improve access to reserves in place, including long length horizontal wells.
6. Encourage coordination among Federal agencies to facilitate hydrocarbon production permits in a timely manner, as prescribed in federal law.
7. Support the use of enhanced oil recovery and infrastructure (e.g., carbon dioxide pipelines, processing plants, steam flood facilities).
8. Support the utilization of enhanced production techniques and development of infrastructure to provide material supply and support for further development in Johnson County.
9. Encourage Federal agencies to approve oil and gas leases in a timely manner and encourage justification in deferring lease applications.
10. Discourage the disposal of oil and gas produced water into surface waters of Johnson County.



11. The County encourages alternatives to flaring, such as the use of pipelines, etc.

## Renewable Energy

### *History, Custom, and Culture*

Johnson County does not have an extensive history or culture associated with renewable energy. However, the renewable energy industry is growing rapidly in Wyoming. The County understands that development of renewable energy is a component of energy infrastructure development. Wyoming currently does not have a renewable portfolio standard goal to generate a certain amount of the state's electricity from renewable energy (National Conference of State Legislatures, 2019).

### *Resource Assessment and Legal Framework*

There are no wind energy developments within Johnson County, however County does have average annual wind speeds of 7.5-9 miles per second which has opportunity for wind energy development (USGS, 2012).

Solar energy has been implemented on a small scale on private lands within the County with two studies being completed on private lands. There is an opportunity in the future for solar energy development on federal lands.

New development of renewable energy in the County will be considered based on expanding existing available energy infrastructure.

### *Resource Management Objective:*

- A. Development and management of renewable energy occur in a responsible manner that considers the economic viability of Johnson County along with the health, safety, and welfare of the County's citizens and the health and sustainability of the County's natural resources.

### *Priorities:*

1. Coordinate with Johnson County during regulatory processes for renewable energy that may impact the cultural and economic stability of the County.
2. Encourage renewable energy development in coordination with the County and stakeholders.
3. Encourage renewable energy to further develop energy infrastructure and energy independence without encumbering underlying mineral estate.
4. Reclamation is considered prior to project approval.
5. Renewable energy should be given equal priority to other multiple uses in the County.
6. Agencies consider the effects of renewable energy developments on other land uses and potential nuisances, such as noise, blinking lights, and detriments to views, wildlife, and neighboring properties before approving any proposed projects.



## Pipelines

### *History, Custom, and Culture*

Due to the development of oil and gas within Johnson County there has been significant development of oil and gas transmission pipelines throughout the County and the Powder River Basin. The development of pipelines in the County began in the early 1920s. The County has long been a proponent of pipeline development. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005; Surdam et al., 2007)

### *Resource Assessment and Legal Framework*

Pipeline infrastructure plays a crucial role in the development and transmission of hydrocarbons at the national, state, and county levels. It is crucial that these avenues for transmission can thrive and develop within Johnson County. Pipelines offer a safe and effective means for delivering large amounts of hydrocarbons across extended distances with some risk for spills (Global Energy Institute, 2013).

Contrary to popular belief, there is little federal regulation of most pipelines. Permitting for interstate natural gas pipelines and interstate liquefied natural gas (LNG) pipelines fall under Section 7 of the Natural Gas Act and are reviewed by the Federal Energy Regulatory Commission (FERC), which also gives pipeline companies their national condemnation authority. However, the Natural Gas Act does not regulate oil or natural gas liquid (NGL).

The Federal government has explicitly avoided drafting regulations concerning pipeline land-use issues. “Congress has failed to create a federal regulatory scheme for the construction of oil pipelines and has delegated this authority to the states.” *Sisseton-Wahpeton Oyate v. U.S. Dep’t of State*, 659 F. Supp. 2d 1071, 1081 (D.S.D. 2009)(“Generally, state and local laws are the primary regulatory factors for construction of new hazardous liquid pipelines.”). Even for gas pipelines, the Federal Energy Regulatory Commission “FERC” requires gas pipeline companies to comply with state and local regulations as a condition of their federal certificates. *See NE Hub Partners, L.P. v. CNG Transmission Corp.*, 239 F.3d 333, 339, 346 n. 13 (3d Cir.2001) (concluding that the field of natural gas regulation was occupied by federal law, but that FERC required the gas company to comply with local regulations through conditions in certificate). Thus, unless pipelines cross federal lands and trigger NEPA review, interstate pipelines remain mostly unregulated by the Federal government.

One aspect of pipelines that is federally regulated outside of federal lands is pipeline safety. In 1994, Congress passed the Pipeline Safety Act “PSA,” 49 U.S.C. § 60101–60137, recodifying without substantive changes the Natural Gas Pipeline Safety Act of 1968 and the Hazardous Liquids Pipeline Safety Act of 1979. Among other things, the PSA expressly preempts state law concerning “safety standards for interstate pipeline facilities or interstate pipeline transportation” and delegates the authority to draft pipeline safety regulations to the Pipeline and Hazardous Materials Safety Administration (PHSMA). 49 U.S.C. § 60104(c).

However, regulations that concern a county’s purview (the general welfare of its constituents) are not necessarily preempted if they indirectly affect pipeline safety. *See, e.g., Tex. Midstream*



*Gas Svcs., LLC v. City of Grand Prairie*, 608 F.3d 200, 212 (5<sup>th</sup> Cir. 2010) (holding a setback requirement for compressor stations was primarily motivated to preserve “neighborhood visual cohesion, avoiding eyesores or diminished property value”). In order that the regulations are not preempted by the PSA, the regulations must affect aesthetics or other non-safety police powers. *Id.* at 212; *see also, e.g., Am. Energy Corp. v. Tex. E. Trans., LP*, 701 F. Supp. 2d 921, 931 (S.D. Ohio 2010) (“The PSA does not preempt Ohio property or tort law.”). Regulations directly affecting reclamation, water crossings, cleanup, or other similar matters important to landowners that affect their environment would likely not be preempted by the PSA.

**Resource Management Objective:**

- A. Pipeline development is managed responsibly and takes into consideration the health, safety, and welfare of the County’s citizens and natural resources.

**Priorities:**

1. Support the development of future and improvement of existing pipeline infrastructure for the transmission of materials in and through Johnson County when it will not affect pre-existing uses or rights.
2. Support the development of pipelines as an alternative to flaring.
3. The County supports streamlined decisions regarding pipelines so long as it does not harm pre-existing uses or rights.
4. Encourage pipeline development to be in the most direct path regardless of land ownership, with a preference to placement on federal lands, except where special designation prohibits or limits surface disturbance.
5. Encourage reclamation of surface disturbance after pipeline construction using weed free native and introduced seed mixes appropriate to the ecological site. Weed mitigation plans for reclamation sites are encouraged.

## 3.5 AIR QUALITY

### History, Custom, and Culture

Clean air in the County is important to citizens and visitors. Wildfires in the summer and fall can create air quality issues. Dust from roads and rangelands can negatively impact air quality, mostly during drought conditions. Clean air is key to people living in this County and to those who visit and wish to live here.

### Resource Assessment and Legal Framework

Air quality is important to the health, safety, and welfare of Johnson County’s residents. Under the Clean Air Act of 1970 (42 U.S.C. §7401 et seq.), the U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing National Ambient Air Quality Standards (NAAQS). Standards were established for total suspended particulate matter, carbon monoxide, ozone, nitrogen dioxide, and sulfur dioxide. The EPA, working with states and tribes, identifies areas as meeting (attainment) or not meeting (nonattainment) the NAAQS standards. The Clean Air Act requires states to develop a plan to attain air quality standards in their state. These plans are called State Implementation Plans (SIPs) (O. EPA, 2014).



In Wyoming, local enforcement of many air pollutant regulations is delegated to the WDEQ (R. 08 EPA, 2014). DEQ's Air Quality Division has established standards for ambient air quality necessary to protect public health and welfare; ambient air refers to that portion of the atmosphere, external to buildings, to which the general public has access (WDEQ, 2018b). DEQ has also established limits on the quantity, rate, and concentration of emissions of various air pollutants from various sources including, but not limited to:

- Vehicle engines
- Construction/Demolition activities (asbestos)
- Handling and transport of materials
- Fuel-burning equipment
- Oil and gas operations
- Manufacturing operations

The degradation of air quality in Johnson County comes from both natural and man-made sources:

- Wind-carried dust (especially during periods of drought)
- Wildfire emissions
- Emissions from the open burning of vegetation
- Emissions from industrial operations
- Dust from unpaved roadway use

The WDEQ Air Quality Division maintains an air quality monitoring location northeast of Kaycee. The monitoring objective of the Johnson County Monitoring Station is to obtain ambient air quality and meteorological data in an oil and gas development area intermingled with rural residential populations. (Wyoming Air Quality Monitoring Network, 2020) The Big Horn National Forest sets the standard to meet state and federal air quality standards, and comply with local, state, and federal air quality regulations and requirements, either through original project design or through mitigation. The Forest's guideline is to minimize effects and impact of smoke for each fire management activity on identified smoke-sensitive areas using "best available control measures" monitoring smoke impacts, and following smoke management requirements established by the WDEQ. (Forest Service: Rocky Mountain Region, 2005) The Buffalo BLM Field Office Resource Management Plan lays out objectives to meet state and federal air quality standards for all projects (BLM, 2015).

### **Resource Management Objective:**

- A. Management of federal lands considers clean air practices and limits air pollution within the County without expansion of rules and policies that would act as an impediment to economic development.

### **Priorities:**

1. Work with Federal, State, and Local agencies to educate stakeholders and develop best management practices (BMP), concepts, and plans to protect air quality in the County.



2. Support the development and implementation of educational programs to provide best management practices on burning to improve air quality when fires occur.
3. Encourage Federal agencies to take aggressive action and implement BMPs for forest management to decrease summer wildfires.
4. Acknowledge that wood burning is a "necessity of life" for the health, safety, and welfare of the County's citizens and should be maintained as an acceptable activity.
5. Ensure there is a balance in which air quality is not compromised at the expense of economic development activities (i.e. mining, oil and gas development) without harming business in Johnson County.
6. Dust mitigation should be required in all development and reclamation plans.
7. The County supports alternatives to flaring to decrease its impact on air quality within the County.

## 3.6 CLIMATE CHANGE

### History, Custom, and Culture

Johnson County relies heavily upon agriculture and energy industries to support the local economy. Climate change including increased temperatures, reduced precipitation, and changes in airflow have the potential to drastically affect the economy of Johnson County. Johnson County is committed to preserving the health of its citizens and its economy and, as such, requires cooperation and open communication with Federal agencies when assessing the effects of proposed federal actions and climate change analysis policies within Johnson County.

### Resource Assessment and Legal Framework

Climate change has been defined as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. Climates are defined by long-term patterns of temperature, humidity, atmospheric pressure, precipitation, and airflow generally over years, decades, and/or centuries.

Paleoclimatology, the study of past climates via ice cores, tree rings, sediment cores, etc., has shown that climates vary naturally over time and are subject to the cyclical phenomena of El Niño-Southern Oscillation (ENSO), Pacific Decadal Oscillation (PDO), and North Atlantic Oscillation (NAO). These phenomena, among others, cause yearly variations in precipitation and temperatures.

Although Executive Order 13783 withdrew guidance on the consideration of the effects of climate change and greenhouse gas (GHG) emissions, in favor of promoting energy independence and economic growth, Federal agencies must still assess the effects of major federal actions on the environment. NEPA-compliant documents may include the following analyses of the proposed action regarding climate change:

- The extent to which the proposed action and all reasonable alternative(s) contribute to climate change through GHG emissions.





- The effect of a changing climate over the life of a project on the proposed project including flooding considerations and changes in precipitation; and
- Implications of climate change on the proposed project including cumulative impacts to resource availability (Exec. Order No. 13783, 3 C.F.R., 2017).

Agencies are required to consider direct, indirect, and cumulative effects when analyzing any proposed federal action and its environmental consequences. When assessing direct and indirect climate change effects, agencies should take account of the proposed action, including “connected” actions, subject to reasonable limits based on feasibility and practicality. In addition, emissions from activities that have a reasonable nexus to the federal action (e.g. cumulative actions), such as those activities that may be required either before or after the proposed action is implemented, must be analyzed (National Environmental Policy Act 1969, 1969).

Council on Environmental Quality (CEQ) recognizes that land management practices such as prescribed burning, timber stand improvements, fuel load reductions, can result in both carbon emissions and carbon sequestration.

**Resource Management Objective:**

- A. Climate change analysis is conducted on a regional level that does not give deference to potential long-term effects of climate change compared to immediate harms that the decision may have to the community.

**Priorities:**

1. Coordinate with the County when discussing the climate effects of proposed actions within Johnson County.
2. Support climate change analysis conducted on a regional level rather than a national or global level. The region should be identified through consultation and coordination with Johnson County.
3. Require a full analysis of the impact each “decision” or federal action will have on the local economy. If it is determined that the decision will have significant negative impact on the local economy, the Federal agency should work with the County to develop an alternative solution.
4. Regulation of greenhouse gases through climate change analysis is not supported.



## CHAPTER 4: WATER RESOURCES

### Overview

Healthy watersheds contain forests that are in good health, have minimal weed infestations, functioning riparian areas, rangelands with a variety of vegetation, and valleys that support farming and urban developments. Healthy watersheds provide recreation opportunities for residents and visitors, serve cultural needs, and provide habitat for native plants, wildlife, and fisheries. The health of Johnson County's watersheds directly affects the current and future availability of quality water resources and water-dependent natural resources, as well as the ability of watersheds to adapt to climate variability, such as periods of drought or high rainfall and rain-on-snow events. The Buffalo Municipal Watershed Project is a USFS project to clear-cut units to improve forest health and watershed health.

Johnson County's watersheds are diverse and dynamic. They consist of a variety of vegetation and topography, including uplands, floodplains, wetlands, channels, springs, lakes, and reservoirs. These watersheds continue to evolve under the influence of climate, floods, landslides, erosion, and human land use. A successful management strategy for Johnson County's watersheds must consider how the various watershed components and uses interrelate and influence each other from ridgeline to stream, and across adjacent watersheds.

Primary watershed areas within the County are the Clear Creek, Crazy Woman, Upper Powder River, and Middle Fork Watersheds. The Clear Creek Watershed is a municipal watershed and surface water source for the City of Buffalo. (Clear Creek Conservation District, 2017)

There are five aquifer systems that feed Johnson County, including the Madison, Dakota, Fox Hills/Lance, Quaternary Alluvial Aquifer System, and Fort Union/Wasatch. The Madison Aquifer System yields up to 400 gpm (gallons per minute) from the Tensleep Sandstone with highly variable quality. The Dakota Aquifer System, located in the Muddy Sandstone and the Cloverly Formation, is primarily used for domestic and livestock water. The primary dissolved solid in the aquifer is sodium bicarbonate between 300 and 3,000 mg/L. The Fox Hills/Lance Aquifer is used for livestock and domestic use (Lance Formation), and municipal, domestic, and livestock use (Fox Hills Formation). Both formations yield <15 gpm. The water quality is considered undesirable for domestic use and poor-good for livestock due to iron, manganese, and sulfate levels. Quaternary Alluvial Aquifer is a thin aquifer within alluvium and terrace deposits and is used widely. Yields in this aquifer are from 50 to 300 gpm. The Fort Union/Wasatch Aquifer System is used for domestic and livestock water. The Wasatch Formation is 500 to 2,000 feet thick and the Fort Union Formation is 1,200-3,900 feet thick. The water quality for this aquifer is variable; refer to the LCD Long Range Natural Resource Land Use Plan. (Clear Creek Conservation District, 2017; HKM Engineering Inc. et al., 2002)

Watershed plans relevant to Johnson County include the Upper Big Goose Creek Watershed Management Plan, Helena Tenmile WTP LT2 Watershed Control Plan, Clear Creek and the Powder/Tongue River Basin Plan Final Report.



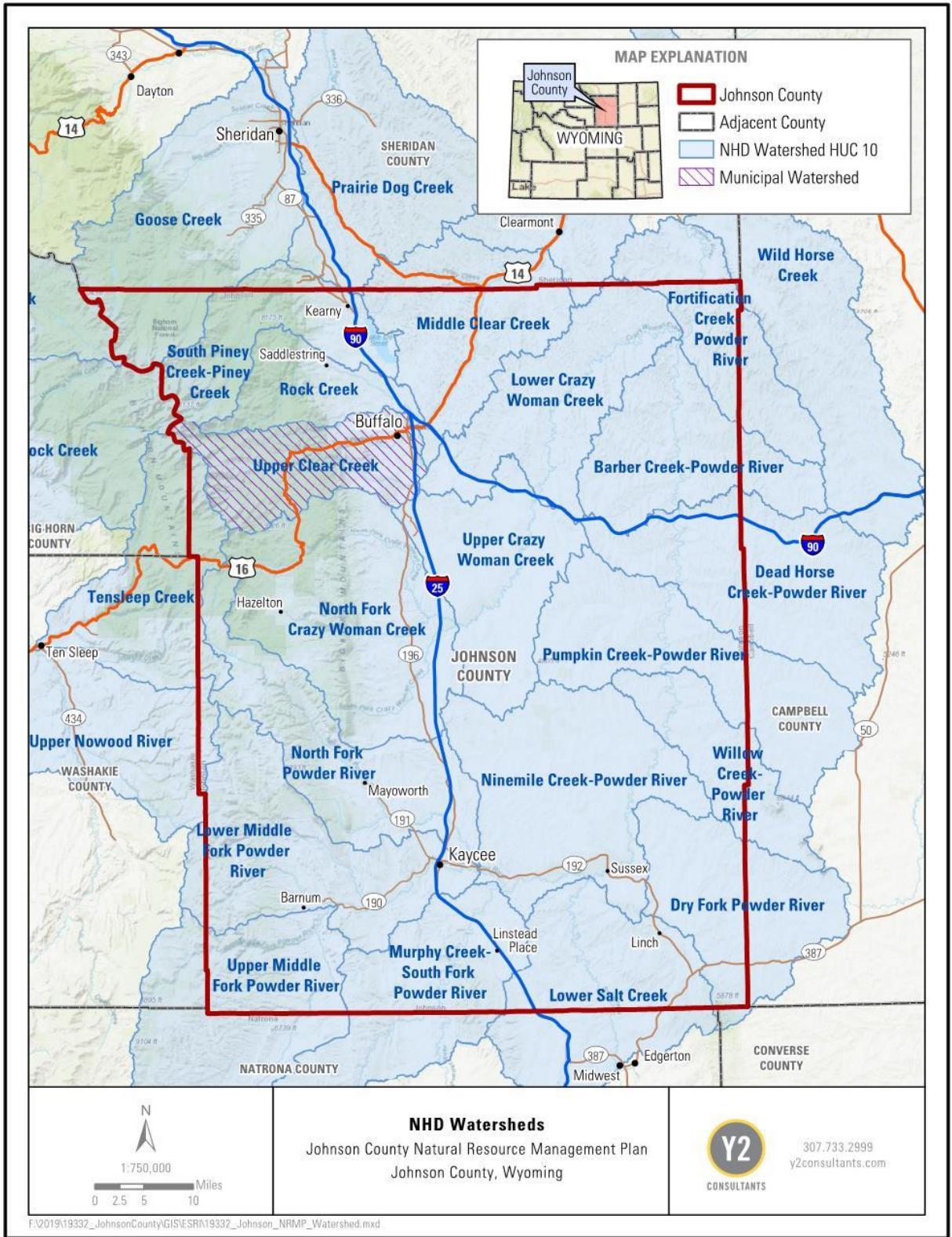


Figure 10. Johnson County Watersheds.



## 4.1 IRRIGATION AND RELATED INFRASTRUCTURE

### History, Custom, and Culture

The primary use of irrigated land in the Powder/Tongue River Basin is for forage production. Many ranchers in the area have depended on irrigated forage production for winter feed since the early development of irrigation in the basin. By the late 1800s bottomland irrigation for forage production was relatively common. In 1972 over 80% of water use in northeast Wyoming was for irrigation. (HKM Engineering Inc. et al., 2002)

In 2002 there were 41,328 acres of full-service irrigated land and 30,002 acres of partial service irrigation (typically receiving reduced water supply) within the Powder/Tongue River Basin. Benefit irrigation acres totaled 169,641. Most irrigation water is sourced from surface waters; less than 0.25% of irrigated lands in the basin use ground water. Within the Powder/Tongue River Basin forage crops dominated active irrigated acres with alfalfa and grass making up 58% and 30% of irrigated crops respectively, while grain and corn production acres totaled 12% combined. (HKM Engineering Inc. et al., 2002)

Additional information on crop production is available in [Section 7.1 Agriculture Production](#).

### Resource Assessment and Legal Framework

According to the USGS Water Resources Report, irrigation influences the flow rates and timing of both perennial and ephemeral streams in the County. Return-flow from irrigation can maintain perennial flow in naturally ephemeral streams. During non-irrigation seasons both perennial and ephemeral streams in irrigated areas experience low flows. The use of reservoirs for retaining irrigation water can lower peak flow rates in systems downstream. This water retention can also extend how long spring and early summer runoff is held in the system before being released downstream. This can extend the season prior to low flow and increase low flow rates during the non-irrigation season for downstream systems. The result is peak and low flows that are more moderated; this decreased flow fluctuation can influence the ecology of downstream fisheries and habitat. (Plafcan et al., 1993)

Additional information regarding irrigation acres, conveyance, and capacity can be found in the Wyoming Water Development Commission Irrigation Survey System Reports located [here](#)<sup>6</sup>. (Wyoming Water Development Office, 2019).

### Resource Management Objective:

- A. Irrigation and water systems are managed, maintained, and improved to ensure current and future access to irrigation water and promote the health, longevity, and sustainability of the County's water.

### Priorities:

1. Support the update and improvement of irrigation infrastructure throughout the County to improve overall watershed health.
2. Support the development, improvement, and continued use of irrigation and related infrastructure.





3. Work with appropriate partners and agencies to promote the efficient delivery and use of irrigation water.
4. Support the development of off channel storage facilities that would allow excess spring runoff to be captured and used later in the growing season, with support from surrounding landowners and water users.
5. Encourage and allow consumptive water right owners to improve water quality and water-use efficiency to provide additional water for economic development and agriculture.
6. Support consideration of the effects of irrigation infrastructure while allowing for other multiple uses on federal land.
7. Encourage negotiation of surface use agreements on split estate lands and support siting of oil and gas facilities off irrigated lands, unless otherwise agreed upon by surface user/owner.
8. Support the continued use and protection of historic irrigation ditch rights-of-way through federal lands whether those rights are permanent or require periodic renewal.
9. Any renewal of rights-of-way for irrigation ditches crossing federal lands should be done expeditiously with as little impact to the historical use as is allowed by law.
10. The County does not support the imposition of instream flows as a condition precedent for renewal of historic irrigation ditch rights-of-way.

## 4.2 DAMS AND RESERVOIRS

### History, Custom, and Culture

Dams and reservoirs are located across Johnson County and used for various functions, including storage for irrigation, recreation, industrial, municipal, flood control, and fish propagation. The Wyoming Water Development Office's (WWDO) Dam and Reservoir Planning division works to promote dam and reservoir maintenance and improvement. Funding from the Dam and Reservoir Division account is available for the development of new reservoirs that are 2,000 acre-feet (AF) or larger, or the enlargement of currently existing reservoirs (minimum of 1,000 AF increased capacity). Funding is also available to Level I and Level II feasibility studies identifying possible water storage projects. (WWDC, n.d.)

### Resource Assessment and Legal Framework

The Powder/Tongue River Water Plan evaluated all reservoirs considered 'major reservoirs' within the surface water assessment, as well as 189 other reservoirs that did not meet the 'major reservoir' designation. Major reservoirs are defined as reservoirs with equal to or greater storage capacity than 500 acre-feet. There are fourteen major reservoirs listed in the Powder/Tongue River Basin Water Plan, eleven of which are within Johnson County (Table 3). Several dams associated with these reservoirs are classified as dams with high hazard potential where failure or mis-operation of the dam will likely cause loss of human life. Currently, there are no dams that provide hydroelectricity within the County. The Healy Dam, located on State ground, does have future potential to provide hydroelectricity.



**Table 3. Powder/Tongue River Basin Major Reservoirs and Holding Capacities. (HKM Engineering Inc. et al., 2002)**

<b>Major Reservoirs in the Powder/Tongue River Basin</b>	<b>Reservoir Capacity (Acre Feet)</b>
Big Goose Park (Park) Reservoir	10,362
Big Horn Reservoir*	4,624
Cross Creek Reservoir	798
Cloud Peak Reservoir*	3,570
Dull Knife Reservoir* (privately owned)	4,345
Healy Reservoir (State owned)	5,140
Kearney Reservoir*	6,324
Lake DeSmet*	234,987
Muddy Guard No. 2 Reservoir	1,934
Tie Hack Reservoir* (municipal watershed)	2,435
Willow Park Reservoir	4,457

\*High hazard dam requirements.

### Resource Management Objectives:

- A. Quality of dams and reservoirs is preserved, and water resources are developed responsibly to provide well maintained, accessible, and functional dams and reservoirs.

### Priorities:

1. Johnson County is consulted regarding federal land management proposals and decisions for their potential impact on water quality, yields, and timing of those yields; impacts on facilities such as dams, reservoirs, delivery systems, or monitoring facilities; and any other water-related concerns.
2. Support the construction of water storage facilities and structures.
3. Support the development of hydroelectricity on dams capable of producing this renewable energy source.
4. Support the proper management, maintenance, and improvements of all dams, especially high hazard dams.
5. Maintain the primary use of all reservoirs within the County for the purpose for which they were originally intended, with the understanding that such use should consider and maintain the highest and best use for citizens within the County and protect current water rights.
6. Support recreational and consumptive use of water to enhance the local economy in a manner that maintains the quality and quantity of the resource.
7. Support the development of small hydroelectric generators in ditch pipes and water pipes on public lands so long as it does not affect pre-existing water rights.

## 4.3 WATER RIGHTS

### History, Custom, and Culture

Wyoming water laws and statutes are governed by Title 41. By Wyoming law, all surface and groundwater belong to the State. The Wyoming State Engineers Office is responsible for management of these waters and protecting existing water rights and resources.





## Resource Assessment and Legal Framework

Wyoming is a Prior Appropriation Doctrine state, meaning that water rights are established by actual use of the water, and maintained by continued use and need (Wyo. Stat. §41-3-101). Wyoming prioritizes water uses as “preferred uses” and all other uses. Wyo. Stat. § 41-3-102. Preferred uses include “rights for domestic and transportation purposes, steam power plants, and industrial purposes.” *Id.* Preferred uses have the right of condemnation against all other water uses and those lesser preferred uses. *Id.* Wyoming ranks uses in the following order: (1) Water for drinking purposes for both man and beast; (2) water for municipal purposes; (3) Water for the use of steam engines and for general railway use, water for culinary, laundry, bathing, refrigerating (including the manufacture of ice), for steam and hot water heating plants, and steam power plants; and (4) industrial purposes. *Id.*

In Wyoming, a water right is a right to use the water of the state, when such use has been acquired by the beneficial application of water under the laws of the state relating thereto, and in conformity with the rules and regulations dependent thereon. Beneficial use shall be the basis, the measure and limit of the right to use water at all times. Thus, in Wyoming, a person must (1) obtain a permit; (2) demonstrate a Beneficial Use and (3) use the water in conformity with the permit in order to have a valid water right. Wyo. Stat. § 41-3-101. Wyoming case law also generally holds that water rights appurtenant to land and the means of conveyance of the water (i.e. ditches, pipes, and conduits) pass with the transfer of the land. *See Toltec Watershed Improvement Dist. V. Associated Enterprises, Inc.*, 829 P.2d 819 (Wyo. 1992); *Frank v. Hicks*, 35 P. 475 (Wyo. 1894). Wyoming also allows for temporary change in water use of a currently valid water right for up to two years with approval from the Wyoming State Engineers Office, so water right users may transfer their water rights for other uses on a temporary basis. Wyo. Stat. § 41-3-110.

Although all surface and groundwater in Wyoming belongs to the state, water rights are considered a property right that can be conveyed or reserved in the same manner as real property. Thus, water rights are widely accepted as property of the holder and can be protected under the 5<sup>th</sup> and 14<sup>th</sup> Amendments of the United States Constitution when taken through regulation (*See Klamath Irrigation Dist. v. United States*, 113 Fed. Cl. 688, 691 (2013)).

A large portion of the groundwater resources in Johnson County have been lost due to domestic use, agricultural use, and natural gas production during the coal bed methane boom in the early 2000s. Though these groundwater resources are renewable in the long-term through snowmelt and surface water seepage, it can take many decades for subsurface aquifers to fully recharge. As groundwater is used in excess of the annual renewal rate the resource is lost for many future generations.

### Resource Management Objective:

- A. State water right laws and policies are supported for all waters on public and private lands.



## Priorities:

1. Support the preservation and improved management of Johnson County's groundwater resources.
2. Placing water rights in the name of any State or Federal agency when the water right is applied for and proved upon by a private individual or corporation, or as the condition of any permit, is not supported.
3. Support recognition of water rights as a private property right that may be owned separately from land.
4. Support the state of Wyoming's prior appropriation principle for water right allocation.
5. Water rights should not be acquired through exactions, including claims of beneficial use by a Federal agency.
6. The reduction of water districts and senior water right holders' allocations below historic levels is not supported.
7. Support protection of senior water right holders' allocations.
8. Support the prohibition of water right exactions for right-of-way and ditch permits. It is the position of the County that in stream flow requirements are exactions.
9. Encourage the protection of water rights in relation to the Yellowstone River Compact and future compacts that may be formed within the County.
10. Johnson County opposes over-reaching federal regulations on Wyoming Waters; we support Wyoming control of Wyoming water.

## 4.4 WATER QUALITY

### History, Custom, and Culture

Water quality is important to the health and quality of life of Johnson County residents. The EPA and WDEQ establish, administer, and monitor standards, policies, rules, and regulations for ground and surface water quality. Johnson County is located in the northeast WDEQ District.

### Resource Assessment and Legal Framework

#### *Surface Water Quality*

The Clean Water Act (CWA) is the federal regulatory mechanism that regulates surface water quality. The CWA gives the EPA and U.S. Army Corps of Engineers (USACE) regulatory jurisdiction over all "navigable waters" also known as "Waters of the United States." The CWA makes it illegal to discharge a pollutant from a point source into a navigable water unless a permit is obtained. The definitions surrounding what a "navigable water" or "Water of the United States" has been a creature of controversy in the past several years and there is still some uncertainty as to what bodies of water constitute as Waters of the United States and what qualifies as a "point source." From the earliest rulemaking efforts following adoption of the CWA in 1972 to the agencies' most recent attempts to define "Waters of the United States" in 2015, the lack of a tangible statutory definition has generated hundreds of cases spanning dozens of courts to ascertain the span of the EPA's jurisdiction. See Federal Register Vol. 85, No. 77 22255 (April 21, 2020). As of the writing of this Plan, the EPA has finalized new CWA regulations that are intended to clarify some of the definitions and clearly set forth the jurisdictional limits of the CWA. The goal of the final



regulations is to (1) include four simple categories of jurisdictional waters; (2) provide clear exclusions for many water features that traditionally have not been regulated; and (3) defines terms in the regulatory text that have never been defined before. Plainly, under the new CWA regulations, (1) territorial seas and navigable waters, (2) tributaries of jurisdictional waters, (3) lakes ponds and impoundments that contribute surface water flow to a jurisdictional water in a typical year, and (4) wetlands adjacent to non-wetland jurisdictional waters all fall under the jurisdiction of the CWA. *Id.* at 2281.

Wyoming surface water quality standards (Water Quality Rules and Regulations, Chapter 1) are developed with the federal Clean Water Act (CWA) and the Wyoming Environmental Quality Act (WEQA). These standards include water quality criteria, antidegradation provisions, and designated surface water uses (WDEQ, 2018a). The Wyoming Water Quality Assessment Program prepares and submits the Integrated 305(b) and 303(d) *Report to the EPA* biennially to maintain compliance with the CWA (WDEQ, n.d.-e). Policies for antidegradation were last updated in September 2013; Surface Water Quality Standards were last updated in April 2018. Surface Water Quality Standards are reviewed triennially as per the requirements of the CWA (WDEQ, n.d.-d). Surface water designated uses are separated into classes and recreational designated uses. For more information on these classifications refer to the Wyoming Surface Water Classification List and the Recreation Designated Uses Web Map located [here](#)<sup>7</sup>. (WDEQ, n.d.-b, 2013).

The WDEQ’s Wyoming Pollutant Discharge Elimination System (WYPDES) program provides permits that contain limitations and conditions that will assure that the state’s surface water quality standards are protected. Through this program, operators of a point source discharge are required to receive coverage under a WYDPDES discharge permit. (WYDEQ, n.d.)

### ***Groundwater Quality***

The Water Quality Division (WQD) Groundwater Program works to protect and preserve Wyoming’s groundwater by permitting facilities to prevent contamination and investigating and cleaning up known releases.

### ***Groundwater Pollution Control Program***

The WQD Groundwater Pollution Control (GPC) Program tracks potential impacts to Wyoming’s groundwater through evaluation of activities permitted at federal, state, and local levels. The GPC Program assists Federal agencies with the NEPA process on large projects such as the Moneta Divide and the Pinedale Anticline. This program also assists private landowners with suspected contamination of their wells. The GPC Program also evaluates the adequacy of water supply sources and wastewater collection and treatment facilities during subdivision applications to ensure groundwater will not be impacted. (WDEQ, n.d.-a)

The Supreme Court recently opined that groundwater can be a point source to transfer pollutants to Waters of the United States when the groundwater is a “functional equivalent of a direct discharge...” *County of Maui, Hawaii v. Hawaii Wildlife Fund*, 140 d. 1462, 1468 (2020). To determine whether groundwater is a functional equivalent of a direct discharge, the Supreme Court clarified that “distance and time” to surface water are major factors in determining if a



CWA permit is required for any groundwater discharges. *Id.* at 76-77. Thus, there can be some circumstances in which some groundwater discharges may require CWA permitting.

**Impaired Waters**

There are several impaired waters within Johnson County, mostly along the Powder River. Table 4 shows the segments listed. The Wyoming 2016/2018 Integrated 305(b) and 303(d) Report includes the Powder River Basin and was completed in 2018. This report includes the 305(b) stream classification/designation list and the 303(d) use and contaminate lists for the Powder River Basin. (WDEQ & WQD, 2018)

**Table 4. Lists 303(d) Water Segments within Johnson County. (WDEQ & WQD, 2018)**

Waterbody	Location	Miles	Causes for Impairment	List Date	TMDL Date
Powder River	From the confluence with Salt Creek upstream to the confluence with the South Fork Powder River	15.9	Selenium	2000	>2022
Powder River	From the confluence with Salt Creek downstream to the confluence with Soldier Creek	19.3	Chloride	1998	>2022
		19.3	Selenium	2000	>2022
		19.3	Arsenic	2012	>2022
Powder River	From the confluence with Soldier Creek downstream to the confluence with Crazy Woman Creek	100.6	Selenium	2000	>2022
			Arsenic	2012	>2022
Middle Prong Wild Horse Creek	From the confluence with Wild Horse Creek to a point 4.6 miles upstream	4.6	<i>E. Coli</i>	2006	>2022
South Fork Powder River	From the confluence with Cloud Creek to a point 47.2 miles downstream	47.2	Selenium	2006	>2022
Willow Creek	From the confluence with the South Fork Powder River to a point 10.5 miles upstream	10.5	Selenium	2006	>2022
Posey Creek	From the confluence with the South Fork Powder River to a point 8.0 miles upstream	8.0	Selenium	2008	>2022
Murphy Creek	From the confluence with the South Fork Powder River to a point 12.2 miles upstream	12.2	Selenium	2008	>2022



Salt Creek	From the confluence with the Powder River to a point 45.3 miles upstream	45.3	Selenium	2008	>2022
		45.3	Oil Spills	1996	>2022
Crazy Woman Creek	From the confluence with the Powder River to a point 9.2 miles upstream	9.2	Manganese	2002	>2022

### ***Cryptosporidium***

Microorganisms such as cryptosporidium, giardia, and e. coli maybe present in municipal water sources. Treatment for these microorganisms can be difficult, especially cryptosporidium. Annually, an estimated 748,000 cryptosporidium cases occur in the U.S. Cryptosporidium protozoa are most commonly spread through fecally contaminated water and can be spread from livestock and wildlife to people. This parasite is tracked by 50 different State agencies using the Center for Disease Control (CDC) National Notifiable Diseases Surveillance System (NNDSS).

There are two watershed plans aimed toward the identification and management of cryptosporidium sources within the Johnson County area. Those plans are the Upper Big Goose Creek Watershed Management Plan, centered just north of the County, and the Helena Tenmile WTP LT2 Watershed Control Plan. (City of Helena, 2011; Painter et al., 2015; VELA Environmental & City of Sheridan, 2015)

### ***Subdivision Review***

The WQD Water & Wastewater Program (W&WP) works to ensure safe and adequate supplies of drinking water and the proper disposal of wastewater. Subdivision reviews are governed by Water Quality Rules and Regulations, Chapter 23, and Wyoming Statutes 18-5-301 to 315. The DEQ reviews subdivisions within Johnson County.(WDEQ, n.d.-c)

### **Resource Management Objectives:**

- A. Water quality within the County is maintained or improved for current and/or future uses using legally obtained credible data.

### **Priorities:**

1. The County reserves the right to refer subdivision water quality reviews to the DEQ in special circumstances.
2. Prioritize locally led efforts to monitor and improve water quality, and where feasible, complete in conjunction with existing State and Federal agencies with the same mandate.
3. Require baseline water quality sampling and cataloguing of collected data for wells (including injection wells) on federal lands.
4. Consult Johnson County regarding federal land management decisions for their potential impact on water quality, yields and timing of those yields; impacts on facilities such as dams, reservoirs, delivery systems, or monitoring facilities; and any other water-related proposal.
5. All water quality data considered by agencies should be credible data as is specified in agency handbooks.



6. The County supports the Data Trespass Act (W.S. 6-3-303) and data collected via trespass should not be considered by agencies.
7. Any action, or lack of action, or permitted use that results in a significant or long-term decrease in water quality or quantity is not supported.
8. Support implementation of land management actions and practices that contribute to or maintain healthy drainages and watersheds.
9. Encourage good management and maintenance of watersheds to retain and slowly release water for desired plant, animal, and human uses, and to reduce the risk of flash floods.
10. Encourage coordination with the USFS, BLM, BOR, EPA, DEQ, and other relevant public agencies to ensure that management of watersheds, including municipal watersheds, meets the multiple needs of residents and promotes healthy forests and rangelands.
11. Support reclamation activities on mined lands that improve soil productivity and water quality and the function of streams channels, floodplains, and wetlands for better productivity.
12. Support construction and management of roads, bridges, culverts, cut slopes, fill slopes, and artificial surfaces to minimize water concentration, erosion, and delivery of polluted water and sediment to streams.
13. Implement land use improvements and practices that promote healthy drainages and watersheds.
14. Expect Federal agencies to implement already established state BMPs in coordination with the County and other local governments to mitigate water pollution caused by heavy erosion and sedimentation from public lands under their management, and work with the County, local conservation districts, and other local governments in accomplishing these BMPs. Those BMPs can be found [here](#)<sup>8</sup>.
15. Encourage and allow consumptive water right owners to improve water quality and water-use efficiency to provide additional water for economic development and agriculture.
16. Support policies to improve groundwater health for consumptive use.
17. Ensure recovery plans, habitat management plans, critical habitat designations or and other plans proposing an “in stream flow” requirement adequately considers local existing and anticipated future water uses, local custom and culture, local economic and individual needs and is consistent with Wyoming water laws.

## 4.5 FLOOD PLAINS

### History, Custom, and Culture

#### *Federal Emergency Management Agency’s (FEMA)*

At the time this document was written, Johnson County was participating in the National Flood Insurance Program (NFIP) (FEMA, 2020). Communities that participate in NFIP and implement the floodplain management regulations, are eligible for the FEMA Community Assistance Program – State Support Services (CAP-SSE) (FEMA, n.d.-a)). The CAP-SSE provides support and funding for strategic planning, ordinance assistance, technical assistance, mapping coordination,





state program and agency coordination assistance, and general outreach and training (FEMA, n.d.-a). Where CAP-SSE provides general preparedness funding, planning, and management, the Risk Mapping and Assessment Planning (Risk MAP) projects develop high quality maps and data to assess the factors contributing to increased risk of flooding in an area, and then develops plans to reduce risk (FEMA, n.d.-d). There are currently active Risk MAP projects within Johnson County (FEMA, n.d.-c). For more information on flood hazard mapping within Johnson County refer to FEMA's National Flood Hazard Layer (NFHL) viewer, accessible [here](#)<sup>9</sup>. (FEMA, n.d.-b).

### **Resource Assessment and Legal Framework**

Flood and floodplain management are important to the safety, economy, and ecological health of Johnson County. Flooding is a significant natural hazard within the state of Wyoming and can cause significant damage. From 1905 to present there have been approximately \$126.7 million in damages across the state from flood damage (University of Wyoming, n.d.). Between 1960 and 2015 Johnson County experienced 21 flood events which incurred \$267,000 in crop damage and \$2,176,472 in property damage. Johnson County is categorized as 'High Risk' for flooding in the Wyoming State Mitigation Plan (Wyoming Office of Homeland Security, n.d.). All of Johnson County lies within Zone X, indicating that the area has a low to moderate flood hazard, usually between the limits of the 100-year and 500-year floods.

### **Resource Management Objective:**

- A. Storm water is managed to ensure the health, safety, and welfare of all residents within the County.

### **Priorities:**

1. Support projects and encourage policies which manage storm water, run-off, and flooding on public lands.
2. The County is consulted where flooding and storm water run-off could impact the County.
3. Encourage development of oil and gas facilities outside of the flood plains.

## **4.6 RIVERS AND STREAMS**

### **History, Custom, and Culture**

Rivers and streams are important surface water resources for Johnson County. The County's surface water quality and health are integral to multiple industries, including livestock and crop production, recreation, and tourism. Surface waters are especially integral to forage irrigation and fisheries in Johnson County. (HKM Engineering Inc. et al., 2002)

### **Resource Assessment and Legal Framework**

The Powder River, and associated waterways, is the main river network in Johnson County. The Powder River is approximately 375 miles long and flows from south to north through the eastern quarter of the County before eventually ending up in Montana and the Yellowstone River. There are three forks to Powder River, the North and Middle Fork flow along the east slope of the



Bighorn Mountains while the South Fork flows on the southern slopes of the Bighorn Mountains west of Casper. The three forks meet in the foothills east of the Bighorn Mountains near Kaycee. The Middle Fork of Powder River was classified as a Special Recreation Management Area (SRMA) in the 2015 BLM RMP. Powder River and the associated stream network is important to agriculture and crop production in the eastern two-thirds of the County as precipitation is significantly lower than along the western border. (HKM Engineering Inc. et al., 2002; National Wild and Scenic Rivers System, n.d.)

Powder River is part of the Yellowstone River Compact. The Yellowstone River Compact divides waters of the tributaries of the Yellowstone River (Clarks Fork, Big Horn, Tongue, and Powder) among the States of Wyoming, Montana, and North Dakota. The compact was negotiated in 1950 and includes the following provisions:

- Existing rights as of January 1, 1950 maintain their status quo.
- Existing and future domestic and stock water uses, including stock water reservoirs up to a capacity of 20 acre-feet, are exempted from provisions of the Compact.
- Devices and facilities for the control and regulation of surface water are exempted from the provisions of the Compact. (USGS, n.d.)

The unappropriated or unused total divertible flow of the Powder River, after needs for supplemental supply for existing rights are met, is allocated 42% to Wyoming and 58% to Montana. (USGS, n.d.)

There are many streams within the County that are important water resources. A list of streams within Johnson County can be found [here](#)<sup>24</sup>.

### Resource Management Objective:

- A. Rivers and streams are managed to maintain water quality, proper ecologic function needs, municipal use to control flooding, and for recreational and industrial use including irrigation.

### Priorities:

1. Support management of rivers and streams to meet “in-stream” flow requirements.
2. Any new or changed priorities regarding in-stream flows should be coordinated with the County.
3. Support continued use of rivers and streams by all users.
4. The County is consulted when impacts to rivers and streams are a potential outcome of a federal action or decision.
5. Support projects and policies which improve or maintain the current ecological function of rivers and streams within the County.
6. The County does not support new interstate water diversions, transfers, or obligations outside of those originally agreed to in the Court Decree of the Yellowstone River Compact.
7. Support the recreational and consumptive use of water to support the local economy.



## 4.7 WETLANDS AND RIPARIAN AREAS

### History, Custom, and Culture

Riparian and wetland areas only make up 4% of the state, however they support over 80% of Wyoming's wildlife (Bureau of Land Management, 2016c). These areas are very important to the health and quality of watersheds and their ecological function. Riparian areas are characterized by vegetation that is adapted to the wetter environments along bodies of water. These areas provide a buffer between open water and upland sites, protecting stream banks from erosion, maintaining stream channel morphology and water table access, filtering runoff sediment and nutrients, and improving stream habitat through lowering stream temperatures and increasing oxygen levels. Wetland areas filter sediment and nutrients that improve water quality and play an important role in maintaining habitat. Riparian and wetland areas play large roles in a stream's ability to release energy from floods onto surrounding floodplain areas, greatly reducing flood damage downstream. (WDEQ, n.d.-f)

### Resource Assessment and Legal Framework

Riparian and wetland areas are an integral part of the health and resilience of water resources within Johnson County.

There are multiple anthropogenic processes that can harm riparian and wetland areas. A few examples of activities that can degrade these ecosystems and their ability to function properly are urban development along streams and on floodplains, diversion of water, improper timber harvest, and improper grazing practices. (WDEQ, n.d.-f; WGFD, n.d.-c) There are also multiple processes that if done correctly can have a positive impact on wetlands. Livestock grazing managed properly and in the right time of year can provide benefits to wetland areas by thinning vegetation to allow new growth and could be used as a weed treatment option (Clary et al., 1989; NRCS et al., 2006).

The Association of State Wetland Managers maintain resources regarding voluntary wetland restoration work, wetland programs, and law and policy. Federally, some wetlands are considered "Waters of the United States" and are protected under the CWA. The definition of wetlands protected under CWA have been specified further through the Supreme Court rulings in 1985 Riverside Bayview, 2003 SWWANCC and 2008 Rapanos (ASWM, n.d.-a, n.d.-b). As of the writing of this plan, the EPA and Army Corps of Engineers recently published new CWA regulations that attempt to clarify what wetlands fall within the jurisdiction of the CWA. Under these newly published rules, only those wetlands adjacent to non-wetland jurisdictional waters fall under the CWA.

### *Bureau of Land Management*

The BLM is required to manage riparian-wetland areas in Proper Functioning Condition (PFC). PFC is the minimum state of resilience needed to withstand moderate flooding and make progress toward a desired condition that supports fish habitat, water quality, and wildlife needs. Riparian and wetland areas may be categorized as Non-Functioning (NF), Functioning at Risk (FAR), or Proper Functioning Condition with upward or downward trend within a PFC assessment. (Bureau of Land Management, 2016d)



### **Forest Service**

Riparian and wetland management standards for the Forest Service are outlined in the Bighorn National Forest Land and Resource Management Plan (BHNF LRMP). Actions within riparian areas or water influence zones (WIZ) must maintain or improve the long-term health and condition of the stream and riparian ecosystem. The BHNF LRMP also defines WIZs and appropriate methods for improvement projects. (BHNF, 2013)

### **Resource Management Objective:**

- A. Wetlands and riparian areas are managed to be healthy and function properly.

### **Priorities:**

1. Support the management, maintenance, protection, and restoration of wetland and riparian areas to proper functioning condition.
2. Support the use of responsible and appropriate grazing and vegetation management tools to maintain and/or improve wetlands and riparian areas.
3. Manage riparian areas damaged by non-native species (i.e. salt cedar and Russian olive) to decrease the impact of these species on the watershed, including water quality and quantity, and to restore the areas to a proper functioning condition.
4. Use appropriate methods and practices to maintain and restore riparian areas to proper functioning condition.
5. Support the use of credible data and scientific standards for wetland designation.
6. The County does not support any CWA jurisdictional wetland designations for wetlands not located immediately adjacent to a navigable water in the County
7. Support the use of Wyoming Forestry Best Management Practices for treatments within wetland and riparian areas.



## CHAPTER 5: WILDLIFE AND FISHERIES

### Overview

#### *U.S. Fish and Wildlife Service (USFWS)*

The USFWS is the agency within the Department of the Interior dedicated to the management of fish, wildlife, and their habitats, and charged with enforcing federal wildlife laws, including the Endangered Species Act (ESA). In addition to managing threatened and endangered species, they manage migratory birds, restore significant fisheries, conserve, and restore wildlife habitat including wetlands, and distribute money to state fish and wildlife agencies. They also manage the National Wildlife Refuge (NWR) System created by President Theodore Roosevelt in 1903. (Wilson, 2014)

There are eight administrative regions for USFWS and approximately 700 field offices across the country. Wyoming is in the Mountain Prairie Region which consists of eight states - Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. The regional office for the Mountain Prairie Region is in Denver, CO. The closest field office is in Cheyenne, WY. There are seven National Wildlife Refuges totaling 86,681 acres in Wyoming, as of the 2018 Annual Lands Report (USFWS, 2018a). There are no Wildlife Refuges, Wetland Management Districts, or Waterfowl Production Areas in Johnson County. (USFWS, 2018a).

#### *Wyoming Game and Fish Department (WGFD)*

Wildlife in Wyoming are managed by the Wyoming Game and Fish Department (WGFD). Nearly a decade after Wyoming became a state in 1890, the legislature created the office of the State Game Warden in 1899. The Wyoming Game and Fish Commission was created in 1921 but did not receive the ability to actively manage Wyoming's game populations through opening and closing hunting until 1929. The WGFD was created in 1973. Prior to this time, all Game and Fish personnel were employed by the Wyoming Game and Fish Commission. (WGFD, n.d.-a)

The Wyoming Game and Fish Commission acts as the policy making board of the WGFD. The Commission is responsible for the direction and supervision of the Director of the WGFD. Through the relationships with the Director, department, and citizens, the board provides a flexible system of control, propagation, management, protection, and regulation of all wildlife in Wyoming. WGFDs commission is a board of seven citizens where not more than five can be from the same political party. (WGFD, n.d.-b) The WGFDs mission is 'Conserving Wildlife, Serving People'.

The WGFD utilizes a State Wildlife Action Plan (SWAP), revised in 2017, to provide a strategy for managing various wildlife groups including mammals, birds, reptiles, amphibians, fish, and mussels. This plan is not a legal document, a regulatory document, a recovery plan under the ESA, or a NEPA decision document (WGFD, 2017b). It is designed to complement existing and future planning and management programs. Wyoming's SWAP was partially funded by the State Wildlife Grants Program, which was created through federal legislation to provide federal funding to states to create a list of wildlife species that have the greatest conservation need. The state plan is built upon eight essential elements, identified by Congress, and implemented by the state



game agency, with an overall focus on “species of greatest conservation need”. The essential elements are:

- Information on the distribution and abundance of species of wildlife including low and declining populations.
- Descriptions of locations and relative condition of key habitats and community types.
- Problems affecting species and priority research, or survey efforts needed.
- Conservation actions needed to conserve the identified species.
- Plans for monitoring species and the effectiveness of conservation actions.
- Plans for reviewing the strategy.
- Coordinating with Federal, State, and Local agencies and Tribal government on the development and implementation of the strategy; and
- Involving broad public participation.

The species list includes 229 total species including 80 birds, 9 amphibians, 24 reptiles, 51 mammals, 28 fish, 8 crustaceans, and 29 mollusks, each with a specific priority designation based on the essential elements listed above. (WGFD, 2017b)

Wyoming’s List of Species of Greatest Conservation Need is divided into three tiers: Tier 1 – highest priority, Tier 2 – moderate priority, and Tier 3 – lowest priority. The Wyoming Game and Fish Commission has six approved variables to evaluate the conservation priority of each species. These variables include:

- The WGFD Native Species Status (NSS)
- Wyoming’s contribution to the species’ overall conservation
- Regulatory/monetary impacts of the species’ listing under the Endangered Species Act
- Urgency of conservation action; ability to implement effective conservation actions
- Species’ ecological or management role as keystone, indicator, or umbrella species

The consideration of these variables in the species’ priority tier designations are made by WGFD biologists who have considerable knowledge about the species. Individual designations may be reviewed annually if warranted by changing circumstances or new data.

State Wildlife Grant Program funds are appropriated annually by Congress. In the appropriation process, individual states are evaluated based on their population and total geographical area. From these evaluations, states receive their apportioned funding amounts. Federal grants cover up to 75% of planning grants and 65% of plan implementation grants. (USFWS, n.d.-c; WGFD, 2017b)

The WGFD updates the species on the Conservation Priority List in conjunction with the State Wildlife Action Plan. The current list of species at the writing of this plan is provided in Table 5 (pg. 132), Table 6 ( pg. 133), and Table 7 (pg. 137) in the appendices. The Wyoming Species of Conservation Priority List can also be found on the [WGFD website<sup>10</sup>](#). (WGFD, 2017a).





## 5.1 THREATENED AND ENDANGERED SPECIES

### History, Custom, and Culture

#### *Endangered Species Act (ESA)*

Protection of endangered species at the federal level began with the enactment of the Endangered Species Preservation Act, passed by Congress in 1966, which provided limited protection for species listed as endangered. The Departments of the Interior, Agriculture, and Defense were to seek to protect listed species and to the extent possible, preserve the habitats of listed species. In 1969, Congress amended the Act to provide additional protection for species at risk of “worldwide extinction” by prohibiting their import and sale in the United States. This amendment called for an international meeting to discuss conservation of endangered species and changed the title of the act to the Endangered Species Conservation Act. In 1973, 80 nations met to sign the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Commission of the European Communities, 1986). As a follow-up, Congress passed the ESA of 1973. The ESA:

- Defined “endangered” and “threatened” species.
- Made plants and all invertebrates eligible for protection.
- Applied “take” prohibitions to all endangered animal species and allowed the prohibitions to apply to threatened animal species by special regulation; such “take” prohibitions also include “adverse modification” of critical habitat.
- Required Federal agencies to use their authorities to conserve listed species and consult on “may affect” actions.
- Prohibited Federal agencies from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or adversely modify its “critical habitat”.
- Made matching funds available to States with cooperative agreements.
- Provided funding authority for land acquisition for foreign species; and
- Implemented protection in the United States. (USFWS, 1973)

The ESA was amended in 1978, 1982, and 1988. Funds are annually appropriated for the implementation of the ESA and have been since 1993.

The USFWS and the National Marine Fisheries Service (NMFS) administers and enforces the modern ESA. The Service has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. (USFWS, n.d.-a) NMFS does not oversee any species within Wyoming.

Candidate species are “any species being considered for listing as an endangered or threatened species, but not yet the subject of a proposed rule” (50 C.F.R. § 424.02(b)).

USFWS is responsible for the identification of critical habitat. Critical habitat is a specific geographic area that contains features essential to the conservation and recovery of a listed species and may require special management or protection. Critical habitat can only be areas that qualify as “habitat.” *Weyerhaeuser Co. v. US Fish and Wildlife Service*, 139 S. Ct. 361, 368 (2018). Neither the ESA nor USFWS regulations currently define “habitat.” *Id.* Land not currently



occupied by an endangered species can only be designated as critical habitat when the Secretary of the Fish and Wildlife Service determines that the land is “essential for the conservation of the species.” 16 USC 1532(5)(A). “Essential for the conservation of the species” is also not defined in either the ESA or USFWS regulations. Although economic impacts are not considered during the species listing process, the economic impacts of a critical habitat designation must be analyzed in the designation process. The USFWS may choose to exclude any area from critical habitat if the agency determines that the benefits of such exclusion outweigh the benefits of designating the area, unless such exclusion would result in the extinction of the species. 16 U.S.C § 1533(b)(2). A decision not to exclude critical habitat for economic reasons is reviewable by courts under an abuse of discretion standard. *Weyerhaeuser*, 139 S. Ct. at 370.

- The ESA created several additional planning tools, including: Recovery plans (population and viability goals; define when delisting may be possible; what is required for delisting to begin).
- Reintroduction plans.
- Habitat conservation plans (define when “take” may occur, defines mitigation options).
- Conservation plans or agreements.
- Candidate Conservation Agreements (CCA) and CCAs with Assurances (CCAA) (private landowner arrangements for the protection of Candidate species that provides the landowner with protection if the species is listed) and Species of Concern. (USFWS, 2018b)

### ***Bald and Golden Eagle Protection Act***

The Bald and Golden Eagle Protection Act (BGEPA) (16. U.S. C 668-668c) was enacted in 1940, with several amendments since, and prohibits anyone from “taking” bald or golden eagles, including their parts, nests, or eggs without a permit issued by the Secretary of the Interior. (USFWS, 2018b)

### ***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act (MBTA) is a federal law that carries out the United States’ commitment to four international conventions with Canada, Japan, Mexico, and Russia. Those conventions protect birds that migrate across international borders. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except as authorized under a valid permit (50 CFR 21.11). The MBTA also authorizes and directs the Secretary of Interior to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take (i.e. hunting seasons for ducks and geese). (USFWS, 2020)

## **Resource Assessment and Legal Framework**

### ***Candidate, Threatened, and Endangered Species in Johnson County***

Currently listed threatened and endangered species can be found on the USFWS [Environmental Conservation Online System](#)<sup>11</sup> (ECOS). (U.S. Fish and Wildlife Service, n.d.). At the writing of this report there are four endangered, threatened, candidate, and proposed species and habitats that have been identified for Johnson County. Those species are:



- Canada lynx (*Lynx canadensis*)- Threatened
- Grizzly bear (*Ursus arctos horribilis*)- Threatened
- Ute ladies' tresses (*Spiranthes diluvialis*)- Threatened
- Wolverine (*Gulo gulo luscus*) – Proposed as threatened

### Resource Management Objective:

- A. Threatened and endangered species are managed using credible data and in conjunction with multiple use mandates in coordination with the County and other stakeholders.

### Priorities:

1. Support delisting of any species with insufficient, unsupported, or questionable data not meeting the minimum criteria for its listing or protection level.
2. Critical habitat should be only those areas where the listed species could currently survive and should not include areas that are missing an essential feature for the survival of the species or would require some degree of modification to support a sustainable population of the species.
3. Upon conducting a robust and full local economic analysis of proposed critical habitat designations in the County, if the analysis indicates economic harm to the County and its citizens outweighs the benefit of the critical habitat to the listed species, the USFWS should immediately exclude such habitat from critical habitat designation.
4. Support participation of the County and other local governments as a cooperating agency and/or in coordination in federal rulemaking, including any NEPA analysis related to the designation of critical habitat, economic analysis for exclusion of critical habitat, and development of recovery plans.
5. Do not support the introduction or reintroduction of listed species into Johnson County, unless the County consents to terms and conditions or standard operating criteria that avoid disrupting current land uses.
  - a. Should an agreement not be reached on the potential introduction or reintroduction, and the species is introduced anyway, support the species being introduced only as a non-essential or experimental population.
6. Support participation of the County and other local governments as cooperating agencies in all decisions and proposed actions which affect the County regarding sensitive, threatened, or endangered species; critical habitat designation and exclusion; the reintroduction or introduction of listed species; habitat conservation plans; conservation agreements or plans; and candidate conservation agreements.
7. Support the development of recovery plans within 18 months of listing that include clear recovery objectives for delisting; for species already listed support the development of a recovery plan within 18 months of this document.
8. Support the petition of the immediate delisting of a species when population or recovery plan objectives have been met, in accordance with the ESA.
9. Support the development and implementation of local solutions (e.g., habitat management plans, conservation plans, or conservation plans with assurances) on federal lands to keep a species from being listed under ESA or as species of concern/species of



special concern so long as such management considers multiple uses already established within the area.

10. Single-species management should be avoided in all federal planning efforts. Multiple uses and sustained yield of lands and resources is supported and implemented as required by federal law.
11. Data used in listing decisions should meet the minimum criteria defined in Data Administration and Management (Bureau of Land Management, 2006) and Forest Service Handbooks FSH 1909.12, (United States Forest Service, 2013) Supporting Land Management Planning.
12. Support control of predators negatively impacting special status, candidate, or listed species before restricting other multiple uses that could be conflicting.
13. Support proven and efficient control of zoonotic and vector borne diseases negatively impacting special status, candidate, or listed species before restricting other multiple uses that could be seen as conflicting.
14. Management or voluntary actions which increase the population of listed species in the County without an approved recovery plan is not supported. Without a recovery plan, management focused on increasing the species population or habitat and cannot move that species closer to a potential delisting.
15. Support the continued use of existing valid permits and lease rights on lands with listed species wherever possible.
16. At a minimum, copies of legal descriptions showing the exact boundaries of designated critical habitat should be provided to local governments in Johnson County.
17. The designation of potential habitat as critical habitat is not supported unless quantifiable data showing when and how features necessary for species recovery will be achieved on the property.
18. An exclusion analysis should be completed for all lands within Johnson County.

## 5.2 GENERAL WILDLIFE AND SENSITIVE SPECIES

### History, Custom, and Culture



Johnson County has diversity habitat that hosts several large wildlife species that are important to the recreational industry of the region. Virtually all the County is habitat of some importance. Johnson County's big and trophy game species include black bear (*Ursus americanus*), elk (*Cervus canadensis*), moose (*Alces alces*), mountain lion (*Puma concolor*), mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), and white-tailed deer (*Odocoileus virginianus*). Refer to the 2005 Johnson County Comprehensive Land Use Plan (JCCLUP) for additional

information regarding wildlife habitat and resources in the County (Johnson County



Commissioners & Johnson County Planning and Zoning Commission, 2005). Refer to Figure 11 through Figure 16 for pronghorn, mule deer, elk, moose, sage-grouse and white-tail deer seasonal ranges within Johnson County.

The hunt units for pronghorn within Johnson County include Areas 10, 16, 20, 21, 22, 102, and 113. The hunt areas for mule deer and white-tailed deer include Areas 26, 27, 28, 29, 30, 31, 32, 33, and 163. The hunt areas for elk include Areas 33, 34, 35, and 36. The hunt area for moose is Area 34.

See the [Overview](#) section for this chapter for additional information on the history, custom, and culture of wildlife in the County.

### **Resource Assessment**

#### **Wildlife Refuges in Johnson County**

In 1903, President Theodore Roosevelt designated the first National Wildlife Refuge by Executive Order. It was not until 1966 that the refuges were put into the NWR and administered by the USFWS. The USFWS administers 89.1 million acres of federal land in the U.S., of which 76.6 million are in Alaska (*Federal Land Ownership*, 2018). The mission of the National Wildlife Refuges is to administer these designated lands for the conservation, management, and if appropriate, restoration of fish, wildlife, and plant resources, and their habitats within the U.S. for the benefit of present and future generations. A number of activities take place on Refuges including hunting, fishing, ice fishing, bird-watching, hiking, bicycling, and water recreation (USFWS, 2018c).

There are seven National Wildlife Refuges in Wyoming (USFWS, n.d.-b), however none are within Johnson County.

#### **Wildlife Habitat Management Areas (WHMA)**

The WGFD maintains approximately 450,000 acres of land under deed, lease, or by agreement for wildlife habitat management areas (WHMA) in Wyoming.

There are two WHMAs within Johnson County, the Ed O. Taylor WHMA and the Bud Love WHMA. A map of these WHMAs can be found [here<sup>12</sup>](#). Both areas provide public opportunities for fishing, hunting, camping and hiking. (WGFD, 2020a)

#### **State of Wyoming Migration Corridor Protections**

In February 2020 Wyoming released the [Wyoming Mule Deer and Antelope Migration Corridor Protection Executive Order 2020-1<sup>13</sup>](#), outlining the State's strategy for managing migration corridors and habitats. The order designated three separate mule deer corridors and a process by which to designate additional corridors in the future. The executive order addresses surface disturbance, state-permitting, and recreation activities within designated mule deer and antelope migration corridors, as well as the cooperation between WYDOT and WGFD (and other related State agencies) to minimize roadway collisions and facilitate big game movement across roadways. (State of Wyoming, 2020)





Executive Order 2020-1 promotes Counties to revise or update land use plans to be consistent with the state designated migration corridor protections. There are currently no migration corridors designated within Johnson County. (WFGD, 2020)

### ***Chronic Wasting Disease (CWD)***

Chronic Wasting Disease (CWD) has been a concern for ungulate populations in Johnson County since the early 2000s. A 2016 CWD study in east-central Wyoming discovered that between 2003 and 2010 32- 43% of all harvested deer were positive for CWD. The study also found that from 2003-2010 the whitetail deer populations declined 10% annually because of CWD related mortality, potentially leading to the loss of local populations within 50 years. The WGFDD statewide 2020 CWD Management Plan outlines surveillance, monitoring, and management strategies at the local or herd unit level to better manage the prevalence of CWD in conjunction with current herd and population objectives in each herd unit. (Edmunds et al., 2016; WGFDD, 2020b)

For additional information on the monitoring and management of CWD in Wyoming refer to the [Wyoming Chronic Wasting Disease Management Plan](#)<sup>14</sup>.

### ***Greater Sage-Grouse***

There are approximately 569,362 acres of designated core habitat for sage-grouse within Johnson County (Figure 16).

Greater sage-grouse is a state-managed species that is dependent on sagebrush steppe ecosystems. These ecosystems are managed in partnership across the range of the Greater sage-grouse by Federal, State, and Local authorities. Efforts to conserve the species and its habitat date back to the 1950s. Over the past two decades, State wildlife agencies, Federal agencies, and many others in the range of the species have been collaborating to conserve Greater sage-grouse and its habitats. BLM has broad responsibilities to manage federal lands and resources for the public benefit. Nearly half of Greater sage-grouse habitat is managed by the BLM.

In September 2015, the USFWS determined that the Greater sage-grouse did not warrant listing under the ESA. In its “not warranted” determination, the USFWS based its decision in part on regulatory certainty from the conservation commitments and management actions in the BLM and USFS Greater sage-grouse land use plan amendments (LUPAs) and revisions, as well as on other private, State, and Federal conservation efforts. Since 2015 the BLM, in discussion with partners, recognized that several refinements and policy updates would help strengthen conservation efforts, while providing increased economic opportunity to local communities.

The BLM issued its Record of Decision for the Wyoming Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA) in March 2019 to update Greater sage-grouse management. This document partially supersedes the 2015 Final Bighorn Resource Management Plan revisions. The 2019 Plan Amendment is currently being litigated in the United States District Court for the District of Idaho and is blocked from implementation under an injunction issued by that court.





In 2019, the Wyoming Governor’s Office issued [Sage-Grouse Executive Order 2019-3](#)<sup>15</sup>. The Executive Order is the State of Wyoming’s primary regulatory mechanism to protect Greater sage-grouse and its habitat. The order outlines procedures that seek to minimize disturbance and incentivize development outside of designated core population areas.

### ***Bureau of Land Management (BLM)***

Special Status Species are designated by the BLM and include federally listed or proposed for listing as threatened or endangered, candidate species, state protected and sensitive species, and other special- status species including federal and state “species of concern.” The BLM designates special-status species where there is credible scientific evidence to document a threat to the continued viability of a species population. Moreover, Special Status Species are typically designated as sensitive by a BLM state director in cooperation with State agencies that are responsible for managing the particular species. State natural heritage programs are typically involved as well, where applicable. Species are usually those that fall in the following criteria:

- Could become endangered in or extirpated from a state or within a significant portion of its distribution;
- Are under status review by the USFWS;
- Are undergoing significant current or predicted downward trends in habitat capability that would reduce a species’ existing distribution;
- A federal listed, proposed, candidate, or state-listed status may become necessary;
- Typically have small and widely dispersed populations;
- Inhabit ecological refugia or other specialized or unique habitats; or
- Are state-listed but which may be better conserved through application of the BLM Sensitive Species Status. (Bureau of Land Management, 2015)

The Wyoming State BLM Office identifies 82 species as sensitive. These species are included in Table 8 (pg. 139) in the appendices.

### ***U.S. Forest Service (USFS)***

Regulations in 36 C.F.R. § 219.19 and § 219.20 call for the selection, evaluation, and monitoring of focal species and their habitat. Focal species may be “plant or animal species and are selected because their population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality” (US Forest Service, 1982). These regulations do not imply that the population dynamics of management indicator species directly represent the population dynamics of other species. Criteria that direct focal species consideration include:

- Species is indigenous.
- Species is a year-long resident of the vicinity (non-migratory), or population trends of the species in the local or regional vicinity are closely tied to habitat conditions resulting from land uses on National Forest System (NFS) lands in the same area.
- Species is considered a keystone species or habitat specialist.
- Species is sensitive to management activities on NFS lands in the local or regional vicinity.



- Population trends of the species are assumed to be related to changes in habitat composition, structure, ecological processes, and/or human activities.
- Species is appropriate for the scale that best represents the key issues or management concerns.
- Biologically and economically feasible to monitor populations and habitat of the species at similar spatial scales.
- Populations are of sufficient size or density to be reasonably detected and monitored. Accepted survey protocols exist. Analysis and interpretation of inventory data should produce meaningful and reliable trend information. Species that require high investment for low returns or suspect results should be avoided.
- Species where the scientific literature supports the assumed limiting factors and habitat associations. (USDA Forest Service, 2001)

### Bighorn National Forest

Management Indicator Species and Threatened, Endangered, Proposed, Candidate and USFS Region Two Sensitive Species identified on the Bighorn National Forest are included in Table 9 (pg. 141) and Table 10 (pg. 142) in the appendices.

### Rocky Mountain Region

The Rocky Mountain Region of the USFS has 173 identified sensitive species. These species are included in Table 11 (pg. 144) and Table 12 (pg. 147) in the appendices.

### **Resource Management Objective:**

- A. Wildlife is managed sustainably using credible data and management plans that are developed in coordination with the County and other stakeholders.

### **Priorities:**

1. Discourage mandatory restrictions for management of wildlife species and habitat beyond that provided through their current legal designation.
2. Support creating a unified (cross-agency) definition for “species of concern.”
3. Support the use of credible data as information BLM and USFS can use as a basis for a decision that a species should be designated a “species of concern” or “sensitive” beyond criteria provided in their respective handbooks.
4. The management of non-ESA listed species (e.g., species of concern, species of special concern, or any other non-ESA designation) as though they are protected by the rules of the Endangered Species Act is not supported.
5. The County supports the State of Wyoming’s Sage-Grouse Conservation Strategy.
6. Management plans should be generated to protect the overall health of all natural resources, using multiple use principles, not specifically managed for one individual species.
7. Encourage and support timely responses from Federal agencies when requested by Johnson County for resources concerns, management plans, and other sensitive, candidate or listed species.



8. Management plans should use independent scientific data, peer-reviewed science, and/or those data meeting the ‘credible data’ agency specifications to generate plans.
9. Minimize management of “special status” species to decrease single-species management efforts, and to eliminate management of special status species as ESA-protected species.
10. The County should be notified of proposed expansions or reductions of Greater sage-grouse core areas and connectivity areas and be provided an opportunity to participate as a cooperating agency on all major federal actions regarding Greater sage-grouse core areas.
11. The County should be consulted and coordinated with in the continued management of Greater sage-grouse, and other species for which a single-species management plan is developed.
12. Create management and population objectives based on the carrying capacity of the habitat including all multiple use mandates (livestock grazing, mineral extraction, etc.) on federal lands.
13. Support habitat monitoring efforts and refine available habitat data.
14. Consultation and coordination occurs with Johnson County where federal monies or resources are committed for the development of management plans, population objectives, wildlife introductions (i.e., big horn sheep or pronghorn), or other decisions that may affect the economic viability of communities within Johnson County, as required by agency mandates.
15. Peer-reviewed science, and/or those data meeting the ‘credible data’ agency specifications, are used in the management of disease spread between native and domestic species, with consultation and coordination of local government.
16. The County requests to be consulted and coordinated with as a cooperating agency as early as possible in the review process of species of concern and sensitive species and in the determination of what should be included as a species of concern or sensitive species.
17. The County should be consulted and coordinated with in the establishment of recovery objectives for species of concern and the development of management actions to move species off the list of concern. Once recovery objectives have been reached, support removing species from the list of concern.
18. Johnson County supports State management of wildlife and management of wildlife on federal lands should reflect Wyoming policy priorities.
19. Support research and management of mule deer, white-tail, and elk for reduction of chronic wasting disease, vehicle collisions, and migrations.
20. Wildlife populations should be managed across federal lands to prevent disease, depredation, and vehicle collisions.



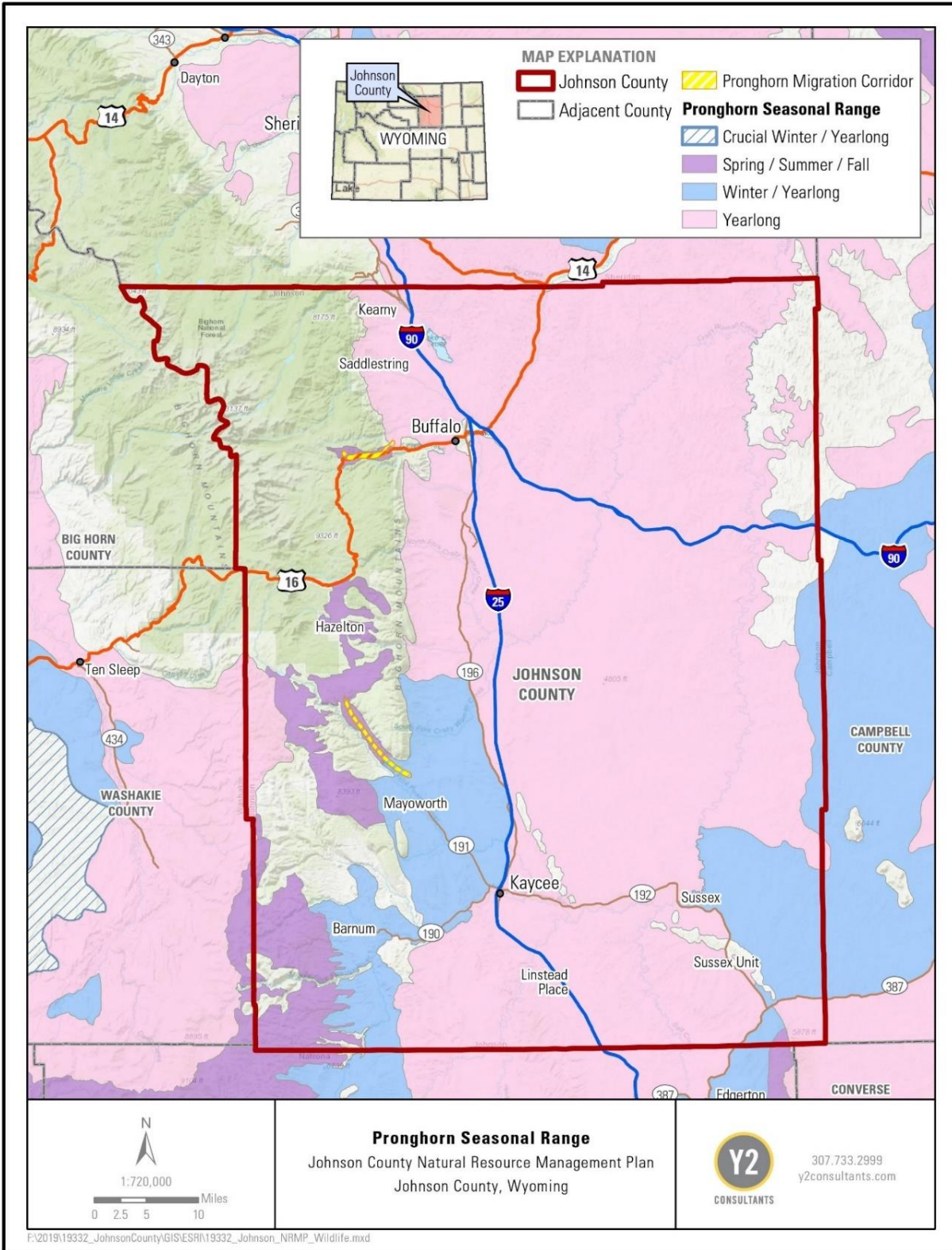


Figure 11. Pronghorn Seasonal Range in Johnson County.





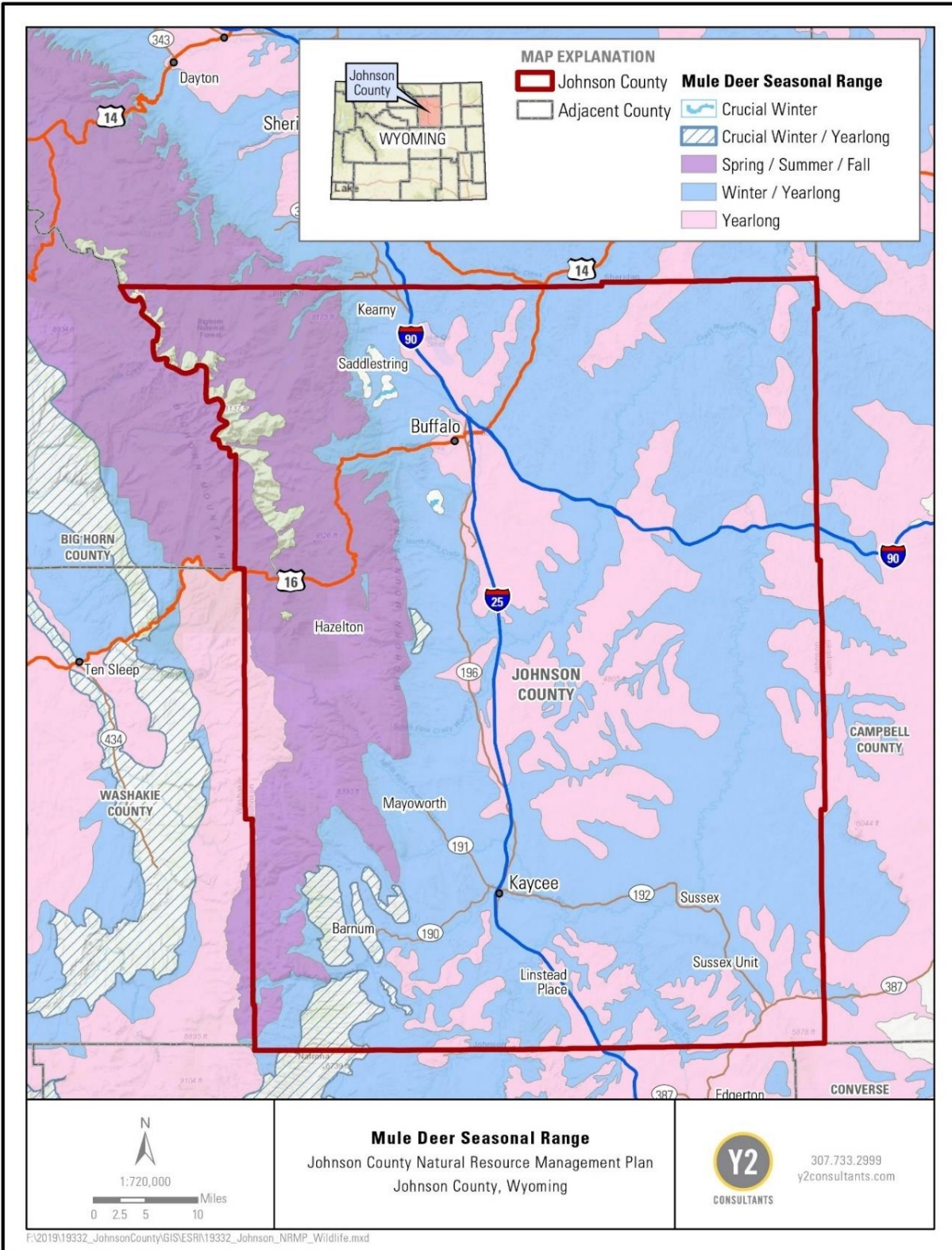


Figure 12. Mule Deer Seasonal Range in Johnson County.



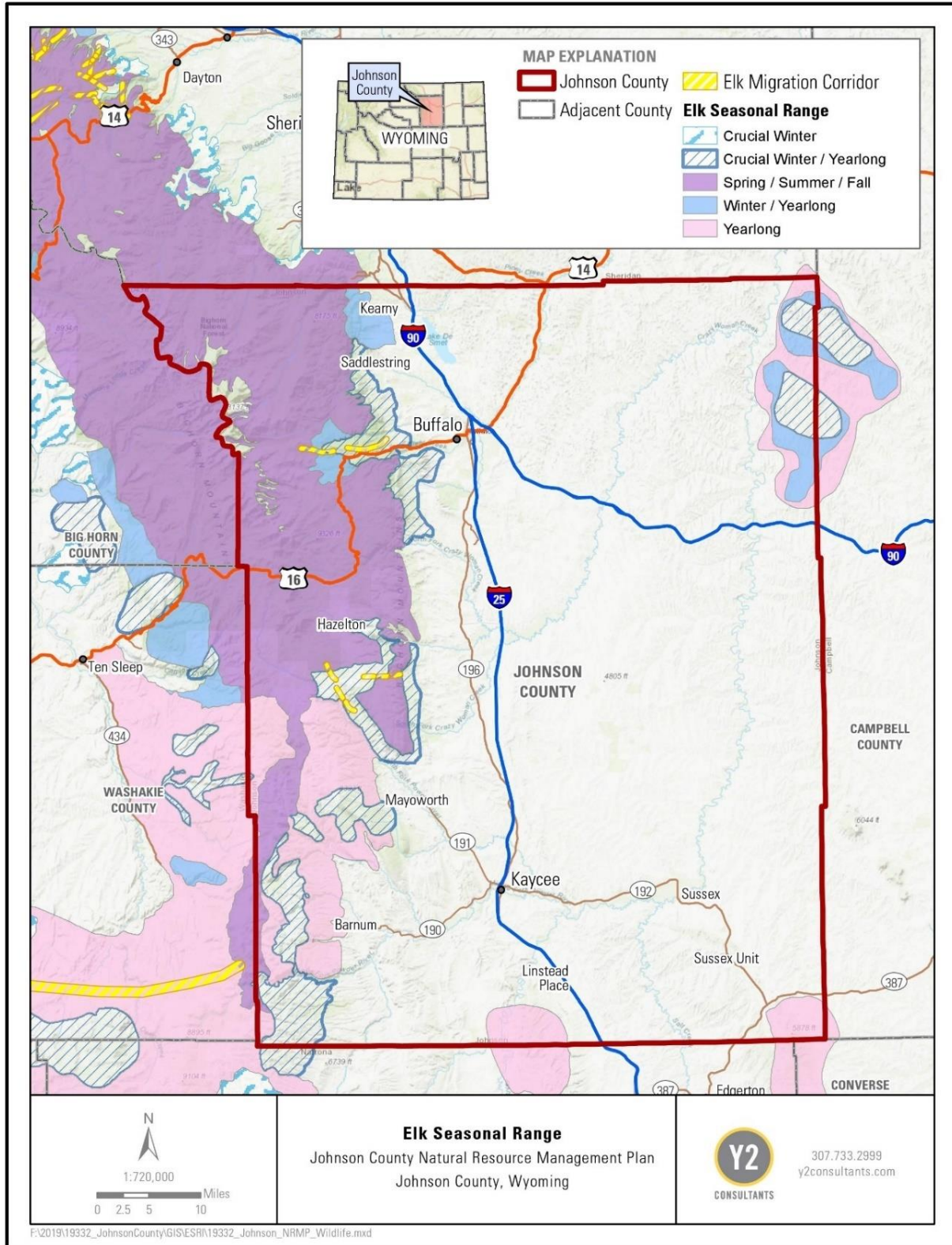


Figure 13. Elk Seasonal Range in Johnson County.





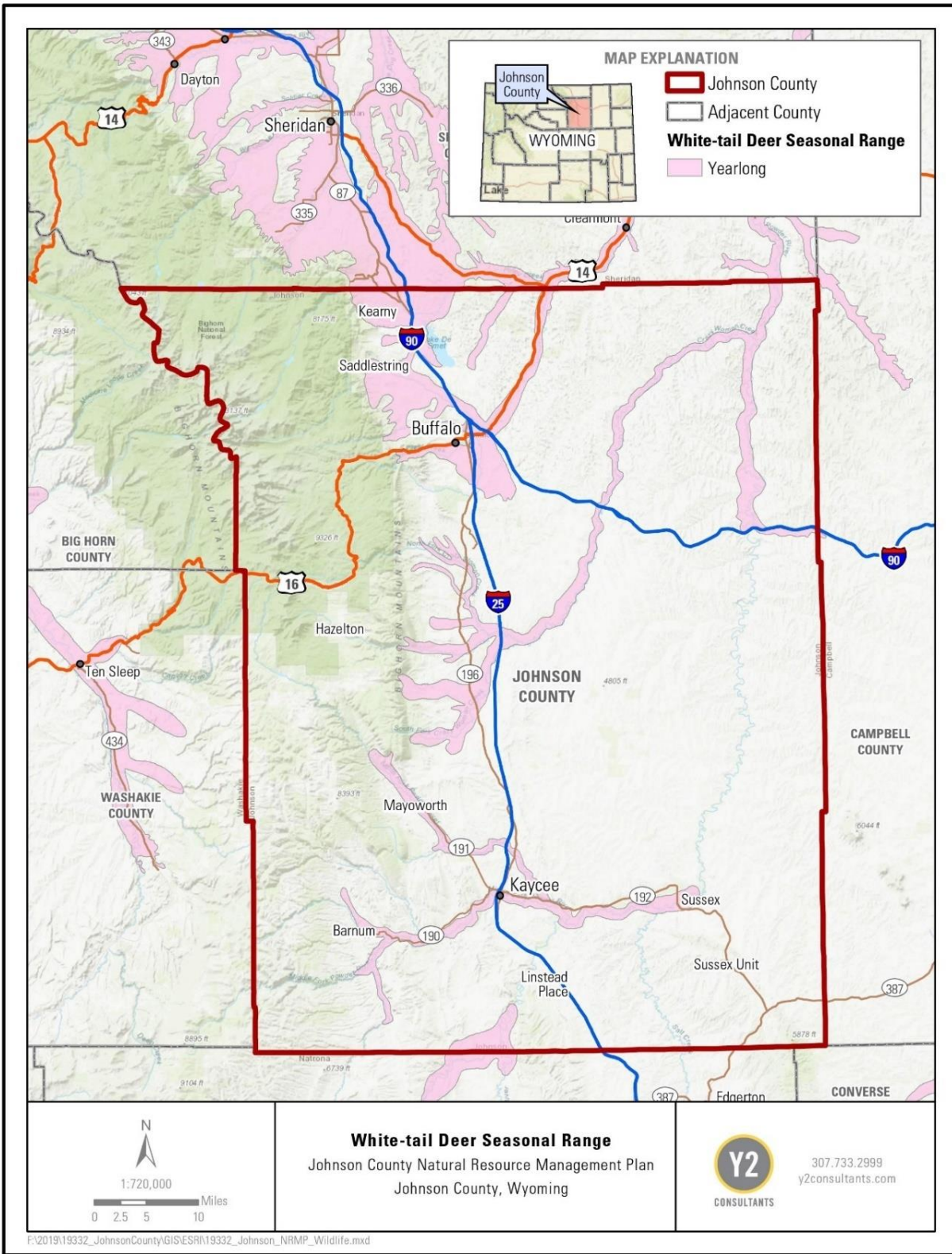


Figure 14. White-tail Deer Seasonal Range in Johnson County.



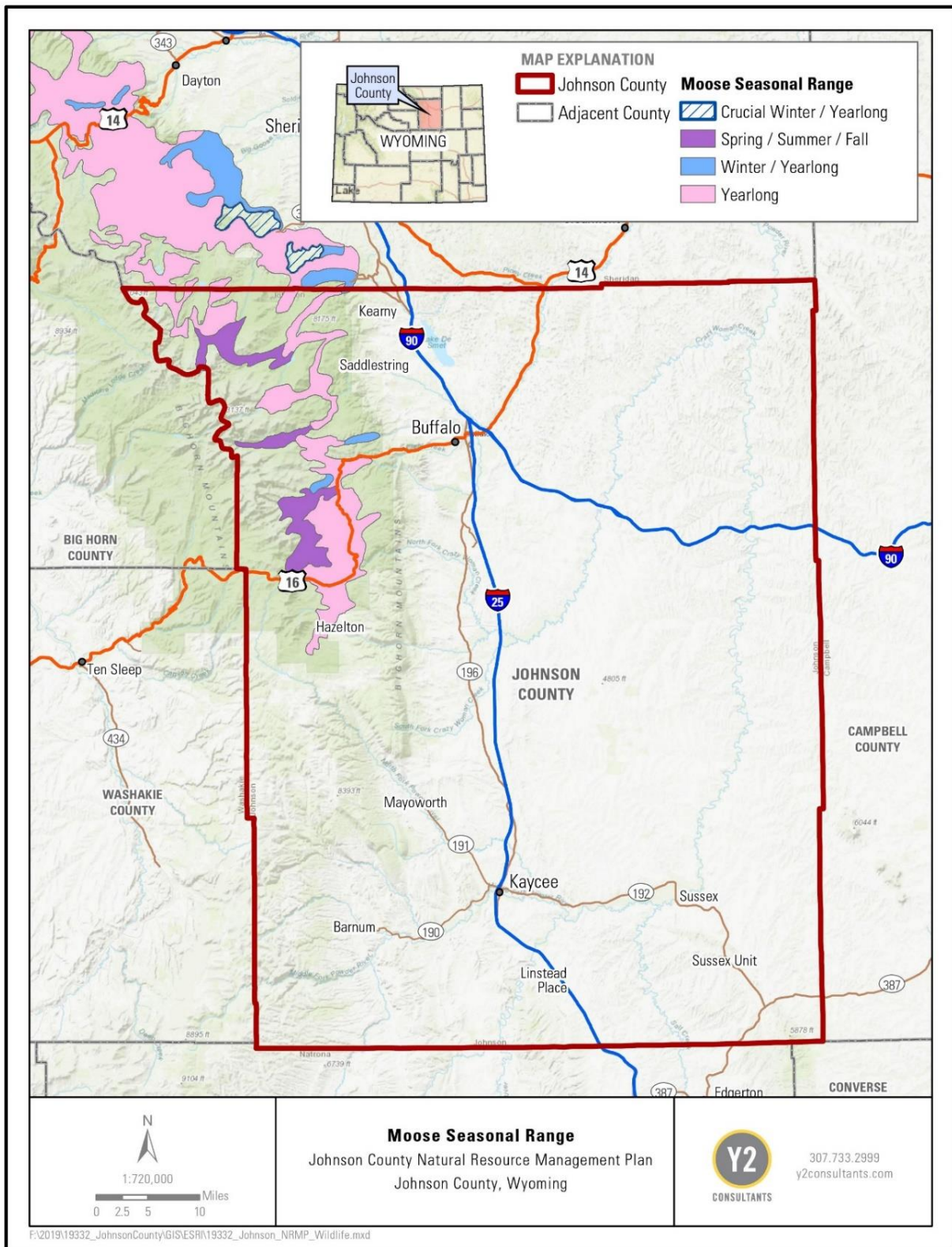


Figure 15. Moose Seasonal Range in Johnson County.





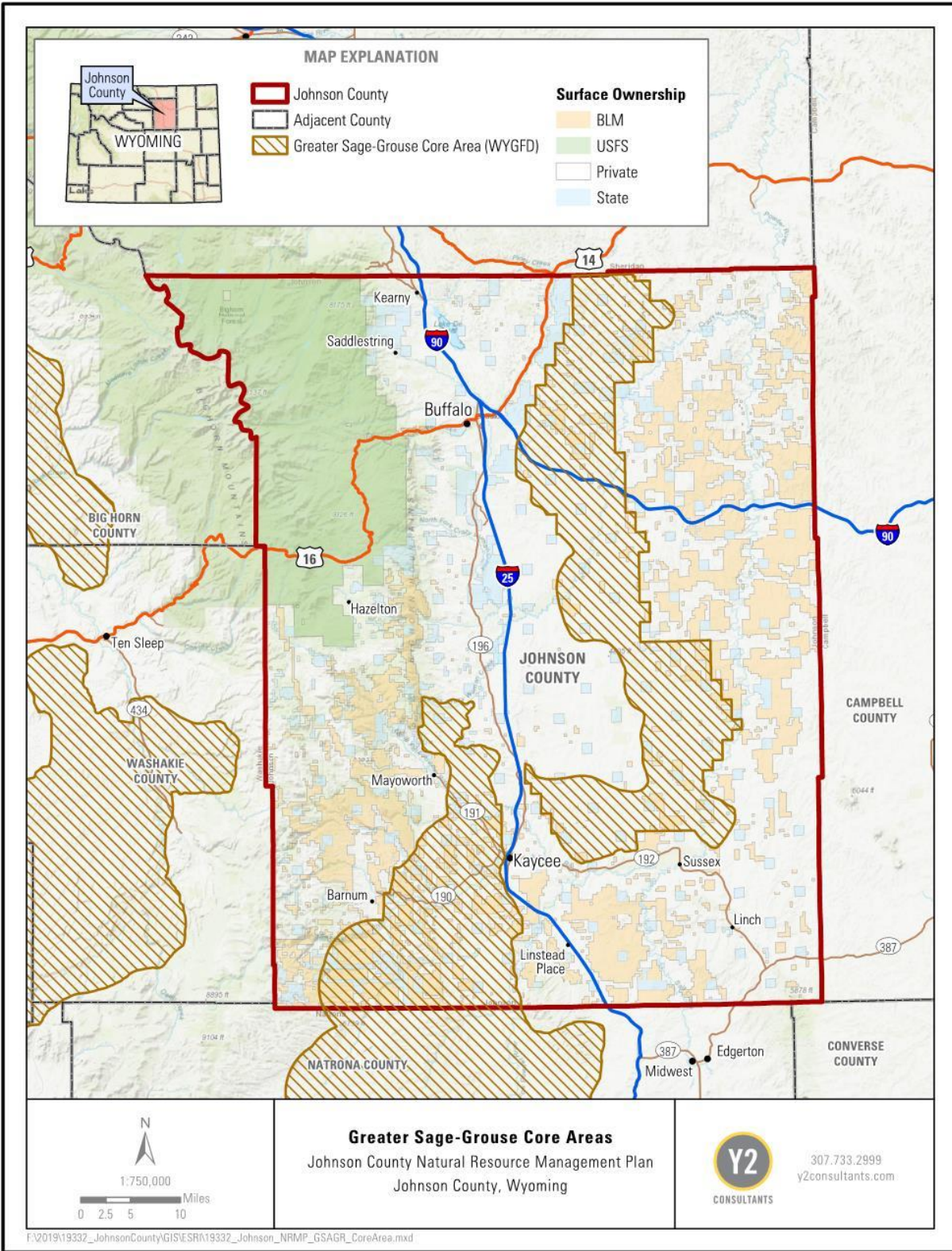


Figure 16. Greater Sage-Grouse Mapped Core Area within Johnson County.



## 5.3 FISHERIES

### History, Custom and Culture

The WGFD manages and monitors fishing activity throughout the state. The State of Wyoming classifies trout streams into five separate designations listed below.

- Blue Ribbon –  $\geq 600$  pounds of sport fish per mile
- Red Ribbon -  $\geq 300$  and  $<600$  pounds of sport fish per mile
- Yellow Ribbon -  $\geq 50$  and  $<300$  pounds of sport fish per mile
- Green Ribbon -  $\geq 1$  and  $<50$  pounds of sport fish per mile
- Orange Ribbon – Any cool/warm water game fish present

Within Johnson County there two blue ribbon stretches: a stretch of the Middle Fork Powder River and a stretch of the North Fork Powder River. There are five stretches that are classified as red ribbon: a stretch of Clear Creek, two stretches of North Fork Powder River, Blue Creek below Sinks, and Buffalo Creek. The remaining streams in the county are classified as yellow ribbon. The WGFD Fish Stream Classifications map can be found [here](#)<sup>16</sup>.

WGFD tracked 121,000 angler days annually on streams and 109,000 angler days annually on ponds, lakes, and reservoirs within the Powder/Tongue River Basin in records prior to 2002. More recent estimates indicate that these numbers could be closer to 140,000 stream angler days and 132,000 standing water angler-days. (HKM Engineering Inc. et al., 2002)

### Resource Assessment

Fisheries support the recreation and tourism industries in Johnson County. Fishing is one of the largest recreation uses of water resources within the basin (HKM Engineering Inc. et al., 2002). The combination of healthy fisheries and public access throughout the County's reservoirs, lakes, and rivers provide diverse fishing opportunities that attract recreators. Healthy native fishery populations are also an indicator of watershed health. The Powder River Basin is composed of six watersheds, Clear Creek, Crazy Woman, Upper Powder River, Middle Fork of Powder River, Salt Creek, and South Fork of Powder River. These watersheds support a diversity of fisheries. Within the Clear Creek Watershed there are Brown Trout, Rainbow Trout, Cutthroat Trout and Mountain Suckers, the Middle Fork of Powder River has Rainbow Trout, and the Crazy Woman Creek Watershed has Brook Trout, Brown Trout, and Rainbow Trout. Figure 17 lists the native and introduced fisheries present in each watershed. Refer to the JCCLUP for additional fishery information within the County.

The major challenges and limiting factors to supporting sport fisheries within Johnson County are barriers to natural fish migration and inefficient irrigation infrastructure which lead to water shortages during critical periods.



FISH SPECIES WITHIN POWDER RIVER BASIN WATERSHEDS JOHNSON COUNTY							
Fish Species  Common Name (Scientific name) (Species: I - Introduced or N- Native)	Wyoming Native Species Status	Watersheds					
		Middle Fork Powder River	Upper Powder River	South Fork Powder River	Salt Creek	Crazy Woman Creek	Clear Creek
Black crappie ( <i>Pomoxis nigromaculatus</i> )(I)			X				
Brassy minnow ( <i>Hybognathus hankinsoni</i> )(N)	6		X				X
Brook trout ( <i>Salvelinus fontinalis</i> )(I)		X					
Brown trout ( <i>Salmo trutta</i> )(I)		X	X				
Channel catfish ( <i>Ictalurus punctatus</i> )(N)	4		X			X	
Common carp ( <i>Cyprinus carpio</i> )(I)			X			X	X
Creek chub ( <i>Semotilus atromaculatus</i> )(N)	5		X	X			X
Emerald shiner ( <i>Notropis lutrensis</i> )(I)			X				
Fathead minnow ( <i>Pimephales promelas</i> )(N)	6		X	X	X	X	X
Flathead chub ( <i>Platygobio gracilis</i> )(N)	3	X	X	X	X	X	X
Goldeye ( <i>Wiodon alosodies</i> )(N)	2		X			X	X
Lake trout ( <i>Salvelinus namaycush</i> )(I)			X				
Longnose dace ( <i>Rhinichthys cataractae</i> )(N)	7	X	X	X	X	X	X
Longnose sucker ( <i>Catostomus catostomus</i> )(N)	4	X	X			X	X
Mountain sucker ( <i>Catostomus platyrhynchus</i> )(N)	3	X	X	X		X	
Northern redbhorse ( <i>Maxostoma macrolepidotum</i> )(N)	4		X			X	X
Plains killfish ( <i>Fundulus zebrinus</i> )(N)	6		X	X			
Plains minnow ( <i>Hybognathus placitus</i> )(N)	3		X	X	X		X
Rainbow trout ( <i>Oncorhynchus mykiss</i> )(I)			X				
River carpsucker ( <i>Carpionodes carpio</i> )(N)	4		X			X	X
Rock bass ( <i>Ambloplites rupestris</i> )(I)			X			X	X
Sand shiner ( <i>Notropis stramineus</i> )(N)	7		X	X	X	X	X
Smallmouth bass ( <i>Micropterus dolomieu</i> )(I)						X	X
Stonecat ( <i>Noturus flavus</i> )(N)	4	X			X	X	X
Sturgeon chub ( <i>Macrhybopsis gelida</i> )(N)	1				X		X
White sucker ( <i>Catostomus commersoni</i> )(N)	7	X		X	X	X	X

Notes:  
(I) Fish specie introduced in Wyoming  
(N) Fish specie native to Wyoming  
Wyoming Native Specie Definitions:  
Status 1 Species – Populations are physically isolated and/or exist at extremely low densities throughout range. Habitats are declining or vulnerable. Extirpation appears possible.  
Status 2 Species - Populations are physically isolated and/or exist at extremely low densities throughout range. Habitat conditions appear stable.  
Status 3 Species – Populations are widely distributed throughout its native range and appear stable. However, habitats are declining or vulnerable.  
Status 4-7 Species – Populations are widely distributed throughout native range and are stable or expanding. Habitats are also stable.

Source: Wyoming Game and Fish Department, 2001; U. S. Bureau of Land Management, 2002.

Figure 17. Johnson County Native and Introduced Fish Species by Watershed. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005)

**Resource Management Objectives:**

- A. Aquatic resources are managed for healthy and biodiverse fisheries that support recreation and tourism.





### Priorities:

1. Support the improvement of irrigation structures to ensure sufficient water flows during critical times for fisheries.
2. Management plans should be generated to protect the overall health of all fisheries resources within an area, not specifically managed for one individual fish species.
3. Management plans will use independent scientific data, peer-reviewed science, and/or those data meeting the 'credible data' agency specifications to generate fisheries plans.
4. Support fisheries habitat monitoring efforts and refine available fisheries habitat data.

## 5.4 WILD HORSE, BURROS AND ESTRAY LIVESTOCK

### History, Custom, and Culture

#### *Wild Horse and Burros*

The Wild-Free Roaming Horses and Burros Act (WFRHBA) was passed by Congress in 1971 and declared wild horses and burros to be “living symbols of the historic and pioneer spirit of the West” (16 U.S.C. § 1331). The law requires the BLM and USFS to manage and protect herds in their jurisdiction in areas where wild horses and burros were found roaming in 1971. Under WFRHBA, “wild free-roaming horses and burros” on BLM land are under the Secretary of the Interior’s jurisdiction for the purpose of management. (16 U.S.C. § 1333(a)). The act requires that the Secretary and BLM must inventory and determine appropriate management levels (AMLs) of wild horses and burros, determine if overpopulation exists, and “shall immediately remove excess animals from the range so as to achieve AMLs” (16 U.S.C. §§ 1333(b) (1) and (2) and 43 C.F.R. § 4720.1).

Under WFRHBA, BLM is required to maintain wild horse and burro population levels “in a manner that is designed to achieve and maintain a thriving natural ecological balance” and to establish appropriate management levels for the herd, considering the relationships with other uses of the public, and adjacent private lands (16 U.S.C. § 1333(a); 43 C.F.R. § 4710.3-1). The WFRHBA was specifically amended, then, to require “immediate” removal of excess horses. 16 U.S.C. § 1333(b)(2).

Once the inventory occurs and the AML has been set, if an overpopulation of wild horses exists, the BLM “shall immediately remove excess animals from the [public] range so as to achieve AMLS.” See 16 U.S.C. § 1333(b) (1) and (2) and 43 C.F.R. § 4720.1 (“Upon examination of current information and a determination by the authorized officer that an excess of wild horses ... exists, the authorized officer shall remove the excess animals immediately...”). “Excess animals” are defined as those that must be removed in order to preserve and maintain a thriving natural ecological balance and to preserve the “multiple use relationships” in an area. See 16 U.S.C. § 1332 (f). As stated in another section of the WFRHBA, “[A]ll excess animals” must be removed by the BLM “so as to restore a thriving ecological balance to the range, and to protect the range from deterioration associated with overpopulation” to preserve and maintain the “multiple use relationship in that area.” See 16 U.S.C. § 1333 (b)(2). When a determination is made that there





is an “excess,” action is immediately required because the “endangered and rapidly deteriorating range cannot wait.” *Blake v. Babbitt*, 837 F. Supp. 458, 459 (D. D.C. 1993).

According to the Tenth Circuit, the BLM must make two determinations before the BLM’s duty to remove excess animals is triggered. *Wyoming v. United States Department of the Interior*, 839 F.3d 938 (10<sup>th</sup> Cir. 2016). The first determination is that an overpopulation exists on a given area of the public lands. *Id.* at 944. This is shown when an area exceeds its AMLs as discussed above. The second determination is that “action is necessary to remove excess animals.” *Id.* If a determination has not been made by the agency that an action is necessary, then the agency does not have a duty to remove those excess horses. *Id.*

Wild horses, as they are now perceived, are not native to America’s rangelands; they are feral animals. Their vulnerability to predators is limited and their population growth rate is high. BLM estimates the growth rate of the wild horse population to be 20 percent annually.

Although there is no federal statute requiring private landowners to allow wild horses to graze on their private lands, private landowners cannot remove the horses; the BLM must be notified of any trespass horses. The WFRHBA mandates that the BLM, once notified, must “immediately” remove trespass wild horses from state and private land.

The BLM designates both Herd Areas (HAs) and Herd Management Areas (HMAs). Herd areas are areas in which “wild” horses and burros were found in 1971 and these are the only areas that BLM may manage horses by law. Herd management areas are the areas selected within each HA that were evaluated by BLM to have adequate food, water, cover, and space to sustain healthy and diverse “wild” horse and burro populations over the long term and were calculated using GIS. (National Horse & Burro Rangeland Management Coalition, 2015)

Wild horses have been problematic for federal land grazing permittees since the passage of the WFRHBA. In recent years, the BLM has been unsuccessful in completing gathers to reduce the numbers of wild horses on rangelands. Many HMAs are significantly over AML, causing harm to rangelands. HMAs are not fenced, allowing horses to cause degradation on private and state lands.

There are no wild horse areas on USFS lands in Wyoming.

### ***Estray Livestock***

"Estray" means any animal found running at large upon public or private lands, fenced or unfenced, in Wyoming whose owner is unknown, whose owner cannot be found, or that is branded with two or more disputed brands for which neither party holds a bill of sale.

## **Resource Assessment and Legal Framework**

### ***Herd Management Areas (HMAs)***

There are currently no Herd Management Areas within Johnson County.



### ***Herd Areas (HA)***

There are currently no Herd Areas designated within Johnson County.

### ***Estray***

An estray includes any animal for which there is no sufficient proof of ownership found upon inspection (W.S. 11-24-101 through 11-24-115). Johnson County manages estray livestock under the Wyoming Statute.

### **Resource Management Objective:**

- A. No Herd Management Areas or Herd Areas will be designated or created in the County.
- B. The County will be notified and coordinated with if there are any intentions to designate or create Herd Management Areas or Herd Areas in the County.

### **Priorities:**

1. The County opposes any proposed creation or designation of HMA or HAs within the County.
2. Coordinate with the County if there are any intentions to designate or create Herd Management Areas or Herd Areas within Johnson County.
3. Any equine animal released from private individuals, tribes, or neighboring lands onto public lands after 1971 should be considered as estray and be removed.



## CHAPTER 6: ECONOMICS & SOCIETY

### 6.1 TOURISM AND RECREATION ON FEDERAL LANDS

#### History, Custom, and Culture

Tourism and recreation in Johnson County are increasingly contributing to the custom, culture, and economy of the area. People from metropolitan areas are traveling to experience the peace, solitude and quiet of majestic mountains and colorful high plains vistas offered by federal lands in the County. Recreational activities in Johnson County include camping, hiking, mountain biking, fishing, hunting, snowmobiling, skiing, and off-highway vehicles (OHVs).

Johnson County is home to the Bighorn National Forest and the Cloud Peak Wilderness, attracting tourists and recreationists. Continued access to these public areas is imperative to the health of the tourism and recreation industry in the County.

#### Resource Assessment and Legal Framework

Johnson County's landscape is a recreational haven. Amenities such as a bounty of wildlife, beautiful pines, grass prairies, and wildflowers offer year-round outdoor recreational opportunities. Recreation, both motorized and non-motorized, is a critical economic drawing point for the County. It attracts visitors who come to view wildlife, fish, hunt, cross country ski, snowmobile, hike, camp, and generally enjoy the opportunities that an open access motorized forest and range system provides. Road maintenance and access is important for the continued use of these recreation areas.

Wildlife and fisheries resources are extremely important to Johnson County both as a resource and as an economic driver. In 2012, approximately 21% of Johnson County's population was licensed to fish and 18% of the county's population was licensed to hunt (Sorensen et al., 2013). In 2015, \$25.3 million was generated by hunters and anglers from their outdoor activities on public lands, with approximately \$20.8 million of that spent by hunters and \$4.5 million spent by anglers in Johnson County. In total, hunters spent 74,000 days hunting and anglers spent 48,000 days fishing with approximately 8,600 fishing licenses sold within Johnson County. (Taylor & Foulke, 2015) Approximately 57% of those who hunt for pronghorn, mule deer, white-tailed deer, elk, and moose are nonresidents. Nonresidents hunters and anglers are extremely important to the economy of Johnson County through their use of food, lodging, equipment, and other supplies purchased within the county. In 2019, there were approximately 4,601 nonresidents hunters for pronghorn, 1,849 for mule deer, 1,016 for white-tailed deer, 763 for elk, and 1 for moose. Compared to resident hunters in 2019 where were 664 for pronghorn, 1,330 for mule deer, 1,948 for white-tailed deer, 2,346 for elk, and 4 for moose.

#### *U.S. Forest Service Lands*

In 2018, there was an estimated 343,000 visits to the Bighorn National Forest, with approximately 6,000 of those visits to the Cloud Peak Wilderness. The top-ranking activities on the BBNF include viewing natural features, viewing wildlife, relaxing, driving for pleasure, and hiking/walking. (USFS, 2018). The top five activities on the BBNF in Johnson County include fishing,



camping/picnicking, enjoyment of scenery, hunting, and hiking/backpacking (USFS, 2001). Within the BHNF there are several developed campgrounds including: Circle Park, Doyle, Lost Cabin, Middle Fork of Powder River, South Fork of Powder River, and Tie Hack. There is also the Hettinger Group Area, North Fork Picnic Ground, and the Hunter, Circle Park, and Elgin Park Trailheads. Dispersed camping is also a very popular recreational activity on the BHNF. (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005).

The USFS has struggled with dispersed camping and compliance issues since 2006. The Bighorn Mountain Coalition (BHMC) Dispersed Camping Taskforce has received extensive public comment regarding the need to address dispersed camping and its effects on forest resources (McKee, 2019). The BHMC submitted recommendations to the BHNF, of which an extension of the dates that require a 14-day camping limit has been enacted (USFS, n.d.-f).

### **BLM Lands**

BLM lands within Johnson County offer a multitude of recreational opportunities. Recreation sites include the Red Wall/Hole-in-the-Wall area, the Dry Creek Petrified Tree Environmental Education Areas, Middle Fork Recreation Area, and Outlaw Cave Recreation Site which also includes the developed Outlaw Cave Campground, on the Middle Fork of Powder River. Dispersed camping is also a very popular recreational activity on BLM lands within the county.

There are four Special Recreation Management Areas (SRMAs) in Johnson County; Mosier Gulch, Dry Fork, Hole in the Wall, and Middle Fork Powder River. The management objectives for Mosier Gulch are as a day use area and picnic area; objectives for Dry Fork include day use, educational, and paleontological; objectives for Hole in the Wall include cultural and hiking/horseback riding; and objectives for the Middle Fork are fishing, hiking, and cultural. (BLM, 2016a) There are five Extensive Recreation Management Areas (ERMAs) in Johnson County; Face of the Bighorns/North Fork of Powder River, Gardner Mountain, Kaycee Stockrest, Powder River Basin, and South Bighorns. More information on SRMAs and ERMAs can be found above in Section 2.3 Special Designation and Management Areas.

### **Resource Management Objective:**

- A. Recreational resources are managed to promote access and availability to the public for tourism and recreational uses, while maintaining benefits to the County's economy across important industries including agriculture, mineral development, and tourism.
- B. Tourist and recreational activities are managed based on the ability of the natural resources to sustainably handle the level of impact.

### **Priorities:**

1. Promote responsible tourism through educational outreach that explains the historical significance of areas, sites, and roads.
2. Support and encourage a year-round multiple use management approach for federal lands as a means of continuing and enhancing recreation opportunities within the County while supporting other approved uses and private land rights.



3. Federal agencies coordinate with the County when implementing land use fees and/or fee increases, or the creation of new fees for the recreational use of federal lands within the County.
4. Support improved accessibility, maintenance, and development of trails to facilitate recreation and access to natural resources for residents and visitors, in coordination with adjacent landowners.
5. Federal agencies coordinate and consult with the County to manage tourist and recreational activities based on the ability of the natural resources to sustainably handle the level of impact.
6. Federal agencies should coordinate and consult with the County to minimize impacts from dispersed camping, especially in riparian areas.
7. Special recreation permit renewals and proposals by Federal agencies are coordinated with the County, as required by Federal agency mandates. Johnson County should be notified and given an opportunity to participate as a cooperating agency for special recreation permit approvals and renewals.
8. Federal agencies coordinate with the County to actively manage recreation to limit or minimize resource degradation.

## 6.2 LAW ENFORCEMENT

### History, Custom, and Culture

Law enforcement is critically important to the citizens of Johnson County. The Wyoming Livestock Board partners with the Johnson County Sheriff's Department to aid in cases that transcend County and State boundaries. In general, cases regarding livestock theft are prosecuted through the County attorney's office. MOUs exist between Johnson County and the BBNF and Johnson County and the Wyoming State BLM Office that discuss the roles and responsibilities of each government's law enforcement.

### Resource Assessment and Legal Framework

The Property Clause of the United State Constitution sets out the jurisdictional powers of state, local, and federal law enforcement officers on federal lands. Generally, federal lands have either proprietary or concurrent jurisdiction, meaning that local law enforcement is either the exclusive law enforcement agency in the area or that both local law enforcement and federal agency law enforcement share jurisdiction together to enforce laws on federal lands. Other federal lands, such as post offices or military bases have exclusive jurisdiction, and only the federal government may enforce federal laws within those areas. United State Constitution Article IV, Section 3, Clause 2. The Assimilative Crimes Act allows federal law enforcement agencies who lacks an appropriate federal charge to use an appropriate state law in federal court whenever necessary. 18 U.S.C. § 13.

FLPMA gives the BLM authority to retain BLM law enforcement officers who enforce federal law within BLM jurisdiction. Those officers have the authority to enforce federal laws, but do not have the authority to enforce state laws without written authorization from the local law enforcement agency in charge. FLPMA and the BLM's regulations specifically gives BLM law enforcement officers traditional police powers such as enforcing federal laws, carrying firearms,



serving search warrants, making arrests with or without a warrant and conducting searches of places or people with or without a warrant in accordance with applicable laws and seizing evidence. (BLM, n.d.-c)

NFMA gives the USFS similar law enforcement authority. USFS law enforcement officers also have the authority to enforce federal laws and regulations within the national forests, but not state laws. Many of the USFS law enforcement regulations can be found in 36 C.F.R. Part 261. Their primary responsibility is “the protection of natural resources, protection of Forest Service employees and the protection of visitors.” (USFS, n.d.-g)

Law enforcement in Johnson County includes actions on both public and private lands. Federal lands within Johnson County are subject to law enforcement coordination when issues related to natural resource management and federal lands arise, such as livestock theft or search and rescue operations. State law enforcement officials operating in Johnson County include Wyoming Highway Patrol, Wyoming Department of Agriculture, Wyoming Livestock Investigation Bureau, and State Park Rangers. As the use of federal lands has increased, so has the need for law enforcement and coordination of federal law enforcement agents with the County Sheriff. The Johnson County Search and Rescue (JCSAR) also plays a role in responding to search and rescue calls across all public lands in Johnson County. The JCSAR operates under the authority of the Johnson County Sheriff.

#### **Resource Management Objective:**

- A. Public lands are managed for orderly use and management in coordination with the County Sheriff’s office.
- B. Law enforcement and emergency services have unfettered access to public lands to protect the health, safety, and welfare of residents and visitors.

#### **Priorities:**

- 1. Promote Federal agency recognition of the County Sheriff as the leading law enforcement official in the County.
- 2. The BLM and USFS should follow the MOUs signed with the County.
- 3. The County Sheriff’s Office is notified immediately when there is a life-threatening situation, criminal act, project structure failure, resource contamination, natural phenomenon (landslide, flood and fire), and/or cultural resource site disturbance on public land.
- 4. The County requires that Federal agencies allow safe and unfettered access to federal land for law enforcement and emergency services.
- 5. Continue to work with USDA for cooperative law enforcement on National Forest per the Cooperative Law Enforcement Agreement signed by the commissioners in May of 2019.

## **6.3 CULTURAL, HISTORICAL, & PALEONTOLOGICAL RESOURCES**

### **History, Custom, and Culture**

Johnson County offers a unique expression of human occupation over the last 11,500 years. Over this period flora, fauna, and the people who lived in the Bighorn Mountain region changed and





adapted. The earliest occupation is characterized by large game hunting and Clovis and Folsom projectile points. The oldest Clovis site discovered in Wyoming is the Colby site located near the base of the Bighorn Mountains. The Colby site includes cached mammoth remains dated 11,200 BP. With the harsh climatic conditions of the Early Archaic Period, indigenous people diversified to a hunting and gathering strategy that relied on a wider food base. There are cultural resource sites from this period present throughout the Bighorn Mountain foothills. The following period, the Late Plains Archaic, marked the appearance of side-notched points and more intensive communal bison hunting. Evidence of this period and the points used have been documented in the Powder River Basin. With the late Prehistoric Period came smaller side and corner-notched points thought to mark the use of the bow and arrow. Evidence in the Powder River and Bighorn Basins indicate that the area was influenced by culture and tradition from the Northwest Plains and the Great Basin. With the end of this prehistoric period began more intensified resource use including grinding tools, pottery, cairn lines used as game drivers, and more common petroglyphs and pictographs. (NPS, n.d.-a)

Tipi rings occur in greater number with the start of the Proto-Historic Period. In this time frame indigenous people were influenced by the introduction of the horse and European trading goods became available. Resources found from this period include conical timber lodges, game traps, rock art locations, burials, ceramics, and metal arrow heads. There is a prominent site from this period looking over the Powder River Basin. During this period, many different ethnicities occupied or regularly camped in the Bighorn Mountains including the Crow, Shoshone, Arapaho, Cheyenne, Teton Dakota, and Kiowa. Many historic sites in the area have not been linked to any ethnicity due to the lack of diagnostic materials remaining. (NPS, n.d.-a)

The Euro-American Period (1800 A.D. to present) marks the European colonization of the Bighorn Mountains and cultural contact between Native American peoples and Euro-Americans. The suppression of Native American religious use of the area and the development of homesteads and communities changed the landscape. During this period many of the historic homesteads, buildings, and ghost towns protected today were built. The development of trading and trapping routes, trading posts and military forts initiated the settlement of the area. Fort Kearny, the largest fort along the Bozeman Trail, is a historic site from this time. The settlement of Johnson County began in the 1870s, bringing with it livestock operations and irrigation development. (NPS, n.d.-a; Wyoming State Historic Site, National Landmark Interpretive Center, n.d.)



Many cultural resources have been identified throughout the region from this area’s long history of human occupation. These resources are valuable to both residents of Johnson County as well as Native

American communities. These resources can be divided into prehistoric and historic categories.

Included in the prehistoric resources are game and Indian trails, petroglyphs, camp and chipping sites, and game traps. Historic sites include homesteads, cemeteries, ghost towns, and rock

quarrying sites. Many significant cultural, paleontological, and archeological sites have been identified throughout Johnson County.



Johnson County Jim Gatchell Memorial Museum

### **Resource Assessment and Legal Framework**

Johnson County’s traditional lifestyle has centered on agricultural pursuits and resource-based industries for generations. Preservation of remaining historic sites is important to maintain and preserve the cultures of historic and present Johnson County. Historic preservation of property enhances economic values and provides the basis for heritage tourism.

#### ***Historic and Archeological Resources***

There are two acts that primarily protect historic and archeological resources. The National Historic Preservation Act (NHPA) was passed in 1966 and it authorized the Secretary of Interior to maintain and expand a National Register of Historic Places (NRHP). This act established policy for the protection and preservation of sites (e.g., districts, buildings, structures, and objects) that are placed on the National Register of Historic Places. Under NHPA, Federal agencies are required to evaluate the effects of actions on any designated ‘historic properties’ and follow the regulations set by the Advisory Council on Historic Preservation (ACHP) (36 CFR 800). (National Preservation Institute, 2020).

For listing in the NRHP, a property or site should be at least 50 years old and have historic significance within one or more of the four criteria for evaluation. The criteria relate to a property’s association with important events, people, design or construction, or information potential. The NRHP criteria recognize these values embodied in buildings, structures, districts, sites, and objects. The four criteria are as follows:



- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded or may be likely to yield, information important in prehistory or history. (Wyoming SHPO, n.d.)

Traditional Cultural Property (TCP) are included in the NRHP and are properties eligible for inclusion based on associations with the cultural practices, traditional, beliefs, lifeways, arts, crafts, or social institutions of a living community. TCPs are rooted in a traditional community's history and are important in maintaining the continuing cultural identity of the community. (NPS, 2012)

The Secretary of the Interior has the ultimate decision-making authority when deciding whether a site is listed in the National Register, however, local governments, including counties can significantly influence the process. Local governments certified by the State Historic Preservation Officer (SHPO) are entitled to prepare a report stating whether a site nominated in its jurisdiction is eligible in its opinion for listing in the National Historic Register. See NHPA Section 101(c). Currently Johnson County does not have a Historic Preservation Commission to maintain the status of a certified local government.

Perhaps most influential on federal actions, Section 106 of the NHPA grants legal status to historic preservation in federal planning, decision making, and project execution. Section 106 applies when two thresholds are met: 1) there is a federal or federally licensed action, including grants, licenses, and permits; and 2) that action has the potential to affect properties listed in or eligible for listing in the National Register of Historic Places.

Section 106 requires all Federal agencies to consider the effects of their actions on historic properties. The responsible Federal agency must consult with appropriate State and Local officials, Indian tribes, applicants for federal assistance, and members of the public and consider their views and concerns about historic preservation issues when making final project decisions.

Effects are resolved by mutual agreement, usually among the affected state's SHPO or the Tribal Historic Preservation Officer (THPO), the Federal agency, and any other involved parties. The ACHP may participate in controversial or precedent-setting situations.

In 2014 the act was amended, and the codified law was moved from Title 16 to Title 54 and retitled the Historic Preservation Act. However, the substance of the act remained the same, so the listing criteria for placement of sites in the National Historic Register and the requirements under Section 106 remain.



Currently Johnson County has 26 sites (not all are publicly accessible) listed in the National Register, including: (Wyoming SHPO, n.d.)

- AJX Bridge over South Fork and Powder River
- Beaver Creek Ranch Headquarters
- Blue Gables Motel
- Buffalo Main Street Historic District
- Cantonment Reno
- Carnegie Public Library
- Dull Knife Battlefield
- EDL Peloux Bridge
- EDZ Irigary Bridge
- Fort McKinney
- Fort Phil Kearny and Associated Sites
- Fort Reno
- HF Bar Ranch Historic District
- Holland House
- Johnson County Courthouse
- Lake Desmet Segment of the Bozeman Trail
- Main Street Historic District
- Methodist Episcopal Church
- Powder River Station – Powder River Crossing
- St. Luke’s Episcopal Church
- Sussex Post Office and Store
- TA Ranch Historic District
- Trabing Station – Crazy Woman Crossing
- Union Congregational Church and Parsonage
- US Post Office – Buffalo Main
- Wold Bison Jump

The Archaeological Resources Protection Act (ARPA) of 1979 provides regulations on the management of historic sites on federal land and the issuance of permits to excavate archeological discoveries.

### *Paleontological Resources*

The Paleontological Resource Preservation Act (PRPA) was enacted in 2009, directing multiple Federal agencies to establish comprehensive management plans for paleontological resources. PRPA applies to the USFS, BLM, BOR, NPS, and the USFWS. For information concerning each agency’s plan regarding paleontological resources refer to their websites below. (Bureau of Land Management, 2016b; National Park Service, 2020)

- [Forest Service, fossils and paleontology<sup>17</sup>](#)
- [Bureau of Reclamation, fossil resources<sup>18</sup>](#)
- [U.S. Fish and Wildlife Service, historic preservation<sup>19</sup>](#)



- [Bureau of Land Management, Paleontology<sup>20</sup>](#)
- [National Park Service, Fossils and Paleontology<sup>21</sup>](#)

### Resource Management Objective:

- A. Cultural, historical, geological, and paleontological resources are preserved and protected for current and future public education and enjoyment.

### Priorities:

1. Cooperate with State and Federal authorities in identifying significant cultural resources in the County and evaluate the significance of proposed land use actions and their impact on cultural resources.
2. Agencies communicate with the County on known or potentially significant cultural resources for the County to have input into the management and protection of the resource.
3. Support and encourage making significant local cultural resources available for research and education, and strongly urge the protection of those cultural resources. However, the County does not support excessive buffer zones around historical and cultural resources. Buffer zones should be determined on a case-by-case basis and should not exceed one-quarter mile in width in most circumstances.
4. Support private property rights as paramount for cultural, historical, geological, and paleontological resources thought to be on private lands.
5. Require a full analysis of the impact each “decision” or proposed federal action will have on the local economy. If it is determined a decision will have significant negative impact on the local economy, the alternative/decision is not supported.

## 6.4 ECONOMIC AND SOCIOECONOMIC CONSIDERATIONS

### History, Custom, and Culture

Johnson County is nearly 31% federally owned land with 830,720 acres of land under federal control. One of the main drivers of the Johnson County economy is agriculture. Stream water has been used for irrigation since the late 1870s. Since settlement of the valley, cattle ranchers and sheep herders were the primary residents of what is now present-day Johnson County. Of private land in the County, 97% is in agricultural use (1.5 million acres). Today’s cattle ranchers are heavily reliant upon grazing leases for federal lands to maintain healthy and productive stock. The livestock industry accounts for a substantial portion of Johnson County’s agricultural income, is the oldest continuing industry in the County, and is still a major user of federal land.

Mineral and materials mining is another long-standing sector of the Johnson County economy. Mining of coal, uranium, and bentonite, and production of oil and gas contributed to the economic development of the County and continue to be important industries today.

### Resource Assessment and Legal Framework

The structure and trends within a region’s economy are important to local officials, State governments, Federal agencies, and the public in more effectively conducting and participating in public policy decision making processes.



In October of 2018, Johnson County, the University of Wyoming Extension, the Wyoming County Commissioner’s Association, and the Wyoming Department of Administration & Information developed a socioeconomic profile of Johnson County. This document and all updated socioeconomic profiles for Johnson County can be found [here<sup>22</sup>](#).

Johnson County has a population of approximately 8,562 people. The largest industries within the county include Health Care & Social Assistance (655 people), Agriculture, Forestry, Fishing & Hunting (534 people), and Construction (425 people). Compared to other counties, Johnson County has a higher number of mining (11.4 times higher than expected), agriculture (10.6 times), and construction industries (1.59 times). The highest paying industries within the county are Information (\$250,001), Real Estate/Rental/Leasing (\$75,685), and Public Administration (\$63,897). The median household income in Johnson County is \$52,415. (Data USA, n.d.)

Recreation and tourism are the number two industries in the State of Wyoming. Johnson County is a gateway to significant seasonal visitor traffic coming to and from Yellowstone National Park. The City of Buffalo has increasingly become a location for travelers to stay en route to Yellowstone, Devil’s Tower, and Mt. Rushmore. Tourism is an important economic driver to Johnson County. In 1998 tourism represented 27% of total employment and in 2017 tourism represented 20% of employment within the county (Headwaters Economics, 2020). In 2019, approximately \$56.5 million was spent on travel in Johnson County, \$15 million was earned, and 630 jobs were supported by travel and tourism in the County (Dean Runyan Associates, 2020)

## **NEPA**

NEPA can play a crucial role in the economic and socioeconomic well-being of a community. NEPA applies to “every major Federal action significantly affecting the quality of the human environment” (42 U.S.C. § 4332(1)(C)). The courts have interpreted this to generally mean that every time the federal government makes a decision for almost any action that may have an environmental impact, NEPA compliance is required. Some courts have even required agencies to follow NEPA when the agency spends a small amount of money on a project or program that they are not the lead agency. *See e.g. Citizens Alert Regarding the Environment v. United States Environmental Protection Agency*, 259 F.Supp.2d 9, 20 (D.D.C. 2003). On July 16, 2020 the Trump Administration and the Council on Environmental Quality announced major regulation reforms to NEPA, including new rules trying to clarify what is a “major federal action.” The new regulations clearly demarcate that only actions that include major federal involvement and are major in scale are those actions that require NEPA. This means that those projects that the government has a minor role are not included. This also means that minor actions (such as allowing certain range improvements on a grazing allotment) are not included. *See* 85 F.R. 43304 (July 16, 2020). As of the finalization of this plan the rule is being challenged by several states and organizations.

NEPA requires that agencies undertake an environmental analysis to determine whether a federal action has the potential to cause significant environmental effects. If a proposed major federal action is determined to significantly affect the quality of the human environment, federal agencies are required to prepare an Environmental Impact Statement (EIS). The regulatory





requirements for an EIS are more detailed and rigorous than the requirements for an Environmental Assessment (EA). NEPA does not mandate results or substantive outcomes. Instead, NEPA’s purpose is to “provide for informed decision making and foster excellent action.” 40 C.F.R. § 1500.1(a). Thus, NEPA ultimately does not require a specific result, but should be utilized to ensure that federal agencies “conduct environmental reviews in a coordinated, consistent, predictable, and timely manner, and to reduce unnecessary burdens and delay.” *Id.* at (b). Therefore, for an agency to be NEPA compliant, they need to make timely and coordinated decisions that are based on informed decision-making.

One of the greatest economic harms for a local community is the typical several year delay of an important project due to NEPA. Since 2010 the average EIS completion time was approximately 4.5 years and averaged more than 600 pages. Even more disturbing, over a quarter of the EISs during that time span took more than 6 years to complete. (CEQ, 2010) CEQ regulations now require that EAs not exceed 75 pages and one year to complete, unless a senior agency official of the lead agency approves a longer period in writing and establishes a new time and page limit. 40 C.F.R. § 1501.5, 1501.10. Similarly, CEQ regulations now require that EISs not exceed 150 pages (300 for proposals of unusual scope or complexity) and two years to complete, unless a senior agency official of the lead agency approves a longer period in writing and establishes a new time and page limit.. 40 C.F.R. § 1502.7.

To increase efficiency in the NEPA process, agencies are supposed to include cooperating agencies at the earliest time practicable to participate. Additionally, agencies are supposed to eliminate duplication of efforts by cooperating with local governments and form (1) joint planning processes; (2) joint environmental research and studies; (3) joint public hearings; (4) joint environmental assessments. 40 C.F.R. § 1506.2(b). Further, agencies, unless specifically prohibited by law, allow local governments to be joint lead agencies in certain NEPA decisions and cooperate in fulfilling local government requirements that may not conflict with federal law. *Id.* at (c).

### Resource Management Objectives:

- A. The socioeconomic and economic viability of the County is prioritized, protected, and enhanced in all federal actions or decisions.
- B. Agencies follow the timing and page limit requirements set forth in the 2020 CEQ NEPA regulations.
- C. The County is included early in the scoping process whenever an agency action or decision may impact the economic or socioeconomic viability of the County.

### Priorities:

1. Require consultation and coordination with the County at the earliest time possible for any proposed action, change of existing activities, newly permitted activities, or changes in regulations that may affect the economic basis of the County.
2. Support consultation and coordination with the County to determine the full scope of potential social and economic effects of activities proposed on public lands, including economic impacts when access and use of federal land is proposed.



3. Support continued access to natural resources development/use on federal lands to maintain economically viable communities in the County.
4. Support “no net loss” in the County economic base due to Federal agency decisions. Include the County in all discussions regarding mitigation if necessary, to protect the economic base of the County.
5. Support the analysis of social and economic factors at the lowest possible level, such as on a county-wide basis in addition to consideration on a state-wide or national scale.
6. Promote the economic and socioeconomic growth of the County.
7. Consultation and coordination between Federal agencies and the County regarding any issues and activities on public land that affect or influence the economic and socioeconomic viability of the County is required.
8. Support the implementation and maintenance of commitments made to support tourism and recreation in the county.
9. Support the implementation of deadlines, page limitations, and cooperation with local governments as set forth in 2020 CEQ regulations.



## CHAPTER 7: AGRICULTURE

### 7.1 AGRICULTURAL PRODUCTION

#### History, Custom, and Culture

Agricultural lands contribute to the County's landscape and scenic beauty, provide wildlife habitat, and provide recreational opportunities for residents and visitors alike for hunting, fishing, snowmobiling and other tourism-related activities. Agriculture is an invaluable source of employment, affordable food, raw materials, and open space to the County. Agriculture also provides numerous opportunities for environmental stewardship to benefit local ecosystems and serves as key component of the County's sustainable economy.

#### Resource Assessment and Legal Framework

Agriculture is an important industry in Johnson County. In 2017, 74% of the land in Johnson County was devoted to agriculture. In 2012 75% of private land used for agriculture in the County was used as rangeland while approximately 2% was used for irrigated crops (Clear Creek Conservation District, 2017). The 2017 Johnson County Census of Agriculture Profile ranks the County as fifth in the state for sheep, goats, and wool; ninth in the state for fruits, tree nuts and berries; and 13<sup>th</sup> in the state for cattle and calves. The 2017 total market value for livestock products was \$41,049,000 and for crop products was \$3,098,000. Agriculture, particularly livestock production, is a major source of revenue and employment for Johnson County. (NASS, 2017)

The climate of the region provides for a short growing season that is often dry and cold. Irrigated agriculture relies on the distribution of water from rivers and reservoirs through canals and pipelines. Some or all of these may reside on or pass through federal and state lands where permitting issues are triggered for maintenance and expansion. According to the U.S. Census of Agriculture, Johnson County had 39,953 acres of irrigated land, of which 26,507 acres were in irrigated crops. This makes the retention and proper management of water rights a priority for the citizens of Johnson County.(NASS, 2017; United States Department of Agriculture National Agricultural Statistics Service et al., 2014)

The basis for these policy statements in this NRMP is to carry out the state mandate to protect agriculture.

*"To protect agriculture as a vital part of the economy of Wyoming, the rights of farmers and ranchers to engage in farm or ranch operations shall be forever guaranteed in this state." (W.S. 11-44-104(a))*

#### Resource Management Objectives:

- A. Agricultural production is maintained as a viable and major component of the economy, custom, and culture of the County.



## Priorities:

1. Support development of plans and policies that directly or indirectly affect agriculture with the intent of increasing the stability and expansion of the industry and encourage innovative techniques that improve the efficiency of crop and livestock production.
2. Support and assist agencies in quickly processing permits on federal lands for the construction, maintenance, or expansion of water distribution systems to private lands, and allowing maintenance where those rights already exist through a range improvement agreement.
3. Federal agency actions should be consistent with Right to Farm laws, to the extent applicable. Right to Farm laws should be considered when coordinating on federal and state land use decisions.
4. Support production agriculture and the responsible use of natural resources to sustain agricultural enterprises.
5. Agricultural property damage or crop loss caused by an escaped prescribed burn, fire suppression efforts, or damage caused by government agency action, resulting in economic loss in Johnson County, should be considered justification for economic compensation and restoration by the responsible agency to the property owner at current market values.
6. Wildlife and federal lands managers, including but not limited to the BLM, USFS, USFWS, Army Corps of Engineers, BOR, and WGFD, are expected to coordinate with private property owners to minimize impacts to private property and property rights.
7. Support streamlining the NEPA process for range improvement development and upgrades on public lands. Proposed range improvements should be approved in six months or less.
8. The individual that files for an improvement/development permit should be allowed to manage the improvement/development and the permit should be in their name if it is approved.
9. Discourage the conversion of arable, productive agricultural lands from agricultural production into rural residential housing.

## 7.2 LIVESTOCK AND GRAZING

### History, Custom, and Culture

The vegetation in Johnson County evolved under tens of thousands of years of grazing and periodic fire. Grazing in the region began to shape the modern vegetation we see today around 18,000 years ago in the Pleistocene Epoch. Eventually these species were replaced by the wildlife we know today. Wildlife, wildfire and early humans continued to shape the vegetation of the basin. In the late 1600s to mid-1700s Native Americans obtained the horse and became pasture managers as well as wildlife managers, manipulating the vegetation and animal populations.

Permitted grazing on federal lands is a critical piece of livestock operations in Johnson County. The intermingled BLM and private lands allow ranching to continue in the County. Approximately 92% of the land managed by the BLM's Buffalo Field Office is managed for private grazing use (Johnson County Commissioners & Johnson County Planning and Zoning Commission, 2005).



Access to federal lands is critical to the continued ability to maintain the ranching community and the viability of the County. For additional information regarding federal land management for grazing in Johnson County refer to the JCCLUP.

Livestock grazing has been a major industry in Johnson County since early settlement. It continues to be a vital part of the custom and culture of the County as well as an economic driver.

### ***Bureau of Land Management***

The Taylor Grazing Act (TGA) of 1934 (43 U.S.C. 315) established the Grazing Service, which eventually became known as the BLM. Local BLM grazing advisory boards created an adjudication process to determine where, when, and what type of livestock grazing could occur on public rangelands. To receive an allotment through this process, the stockman had to have (1) “commensurate base property” on which he could graze his livestock when they were not using the federal lands, (2) have an economically viable livestock operation and (3) be members of the local community and support the local stability of the community. 43 U.S.C. § 315b. The TGA gives individuals the right to apply for grazing permits on federal lands based upon the ownership of qualified base property. 43 U.S.C. § 315(b). The purpose of the TGA is “to stabilize, preserve, and protect the use of public lands for livestock grazing purposes...” *Barton v. United States*, 609 F.2d 977 (10th Cir. 1979). As the court in *Public Lands Council v. Babbitt*, explained, “Congress enacted the [TGA], establishing a threefold legislative goal to regulate the occupancy and use of the federal lands, to preserve the land and its resources from injury due to overgrazing, and ‘to provide for the orderly use, improvement, and development of the range.’” 154 F.3d 1160, 1161 (10th Cir. 1998). Once a grazing district is established, grazing must occur on the land. See generally, *Mountain States Legal Foundation v. Andrus*, 499 F.Supp. 383 (D. Wyo. 1980) (holding that the intent of FLPMA was to limit the ability of the Secretary of the Interior to remove large tracts of public land from the operation of the public land laws). Further, Congress intended that once the Secretary established a grazing district under the TGA, the primary use of that land should be grazing. *Public Lands Council v. Babbitt*, 167 F.3d 1287, 1308 (10<sup>th</sup> Cir. 1999) *aff’d on other grounds*, 529 US 728 (2000). The Secretary can modify the boundaries of a grazing district, but unless land is removed from designation as grazing, or the Taylor Grazing Act designation is terminated, the Secretary must use it for grazing. 43 U.S.C. § 315.

When modifying the boundaries of a grazing district or terminating the Taylor Grazing Act designation of an allotment, the Secretary must classify the land as no longer “chiefly valuable for grazing.” May 13, 2003, Solicitor’s Memorandum to the Assistant Secretaries for Policy, Management and Budget, Land and Minerals Management and the Director, Bureau of Land Management, clarifying the Solicitor’s Memorandum M-37008 (issued October 4, 2002). Thus, a permittee may relinquish a permit but, barring the Secretary determining that there is a better use for the land through land use planning, the forage attached to the permit must be available for grazing. Thus, except upon the showing that the land is no longer “chiefly valuable for grazing,” the Secretary does not have discretion to bar grazing within a grazing district, and must therefore review applications for grazing permits and make a final decision in a timely fashion when they are filed. There are 264 BLM grazing allotments in Johnson County covering approximately 1.8 million acres



### BLM Range Improvements

All range improvements on BLM lands must be authorized by the agency. There are two options for authorization: (1) a Cooperative Range Improvement Agreement or (2) a Range Improvement Permit. The Cooperative Range Improvement Agreement identifies how the costs of labor, materials, and maintenance are divided between the agency and the permittee. Range Improvement Funds can be used for labor, materials, and final survey and design of projects to improve rangelands. The Range Improvement Permit requires the permittee or lessee to provide full funding for construction and maintenance of the improvement. NEPA analysis is not required for normal repair and maintenance of range improvements that are listed on a term grazing permit; permission of the authorized officer is also not required. However, for reconstruction of a range improvement or construction of new improvements, NEPA analysis and a decision by the authorized officer is required. Range improvements such as water developments benefit wildlife in addition to livestock.

### **U.S. Forest Service**

Livestock grazing within the Bighorn National Forest was historically important to settlers within the Bighorn Mountains. Currently, more than 28,000 cattle and 21,000 sheep graze on the Bighorn National Forest under term grazing permit. Within Johnson County there are 17 USFS grazing allotments encompassing approximately 190,048 USFS acres. There are 70 grazing permits permitted on the Bighorn National Forest.

### USFS Range Improvements

All range improvements on USFS lands must be authorized by the agency. The USFS allows structural improvements (e.g., fencing) and non-structural improvements (e.g., change in management practices). Any requirements for permittee construction or development of range improvements are identified in the grazing permit with credits for improvements (if any) to be allowed toward the annual grazing fee. It is a common practice for the USFS to furnish materials and the permittee to provide labor for structural improvements. If significant costs are expected, the permittee can assume responsibility for the improvement (maintenance) but the USFS generally holds title to the improvement. Should the improvement not be adequately maintained, the USFS can act against the permittee for non-compliance with their grazing permit. Range Betterment Funds are available for planning and building rangeland improvements.

## **Resource Assessment and Legal Framework**

With the Federal agencies managing most of the rangeland in the County, ranchers must rely on obtaining federal term grazing permits. A large part of the vegetation in the County is lower producing saltbush and sagebrush areas, while many of the forested leases are highly productive but with limited forage available due to dead and downed timber. Low-productivity rangelands makes for a narrow profit margin. When agencies make a management decision without considering the economic impact on a rancher or a group of ranchers they can be impacted along with the local community. When Federal agencies reduce permitted livestock numbers for any operator, their entire operation is impacted, especially economically. Any reduction in livestock on federal lands directly affects the economy and culture of Johnson County.





Reduction in livestock numbers on federal and state lands can be a result of natural factors, including wildfire and drought. The primary factors in determining livestock grazing capacity on federal land is the quality and availability of the resources. Proper grazing management is an important tool for management of the resources, and can be used to mitigate invasive species impacts, wildfire impact, and can improve rangeland health.

Livestock grazing, irrigated farming and other intensive agriculture are integral to this community's ability to remain viable with a diverse and sustainable economy. Ranching and agricultural operations maintain open space and large landscapes to support multiple uses.

### **Resource Management Objective:**

- A. Livestock grazing is maintained as a viable major component of the economy, custom, and culture of the County.

### **Priorities:**

1. Federal lands within Johnson County are managed for multiple-use and sustained yields, which includes continued grazing as intended by Congress in the passage of the Taylor Grazing Act, FLPMA, MUSY, and NFMA.
2. Livestock grazing management decisions are made based on the best available scientific information that is applicable to the rangeland resources in Johnson County. The scientific information used will be consistent with standards of the Data Quality Act.
3. Federal agencies' livestock grazing management guidelines incorporate standards and objectives that maintain the health, safety, and general welfare of the County's agricultural interests culturally and economically.
4. Work in coordination with Conservation Districts, local grazing boards and grazing permittees to develop and employ best management practices for the purpose of improving rangeland health with the goal of returning suspended AUM's to active status.
5. Work in coordination with Conservation Districts and grazing permittees to develop management practices that adhere to the 2005 Forest Plan and its instruction that the Forest Service strive to maintain or exceed the current allocation of 113,000 AUMs while meeting desired conditions.
6. Grass banks are supported as an acceptable management practice and federal agencies support maintenance of range improvements on grass banks and forage reserves.
7. Allotment retirements are not supported (An allotment retirement is the closure of a grazing permit/allotment).
8. Existing forage reserves should be phased out and retired grazing allotments should be returned to part of the actively managed grazing system. (Grass banks, or forage reserves, are areas where property owners/managers lease land to ranchers to assist with conservation-related projects or resource recovery).
9. Support management plans generated for the overall health of all natural resources. Plans specifically managing for one species are not supported.
10. Support livestock grazing on all federally owned and operated lands as an integral part of habitat management.



11. Support opening of Conservation Reserve Program lands for grazing and haying in times of drought, economic need, or other emergencies as allowed by statute.
12. Site-specific reviews conducted with the permittee/lessee should be used to determine the appropriate grazing rest or deferment period post-fire.
13. Complete full site-specific economic and resource analysis of proposed allotment closures within one-year of closure.
14. Grazing allotments in temporary non-use (the authorized withholding, on an annual basis, of all or a portion of permitted livestock use in response to a request of the permittee or lessee 43 CFR § 4100.0-5) are made readily available for use. If a resource concern exists, the grazing plan should acknowledge the concern and utilize livestock as a tool to help in recovery if feasible. If the allotment is in non-use and the range is meeting Wyoming rangeland standards or desired conditions, the grazing plan should fully utilize all adjudicated grazing AUMs.
15. Support creation of adaptive grazing management guidelines that allow permittees to respond to changes in resource conditions. These should include focused monitoring, triggers and responses, and alternative management.
16. The reduction of domestic livestock grazing AUMs to provide additional forage for another species or strictly for conservation purposes is not supported.
17. AUMs on federal lands should not be reduced unless a documented resource condition indicates a need for temporary reduction to improve condition. Any reduction should include a plan to reinstate AUMs when the resource condition has been addressed.
18. Timely processing of all term grazing permit renewals is a priority of the County.
19. Development of the grazing term permit renewal process should consider actions proposed by the permittee/lessee.
20. All federal and state land management agencies should use the most current Ecological Site Descriptions developed by the NRCS to create appropriate objectives for livestock and wildlife management.
21. Native seed mixes consistent with the Ecological Site Description and free of noxious weeds and invasive species are encouraged for all reclamation efforts and should be beneficial to both livestock and wildlife and developed collaboratively with the permittee. Seed mixes of introduced species may be utilized when they meet reclamation objectives so long as they are the best ecological match for the site and purpose of the seeding.
22. Agencies should collaboratively develop and implement rangeland monitoring programs in cooperation with the permittee. Use currently accepted scientifically based monitoring methods and return intervals and utilize properly trained rangeland personnel with an understanding of rangeland and its management to ensure proper collection and analysis of data.
23. Support the review and incorporation of legal and credible data collected by a permittee, contractors or subcontractors of a permittee, qualified team, or local government for use in management decisions.
24. Support consultation, cooperation, and collaborative efforts to ensure that overall rangeland health is maintained through monitoring and implementation of well-designed livestock grazing management plans on public land allotments.



25. Federal agencies should use range improvement and noxious weed control funds on grazing allotments in a timely manner.
26. Encourage development of additional rangeland improvements when the opportunity arises.
27. Johnson County supports improving rangeland health to accomplish the 2005 Forest Plan statements and goals.
28. Grazing rest prescriptions related to either wildfires or prescribed burns will be determined on a site-specific basis. If grazing on federal lands is temporarily suspended due to fire, recommence grazing based on monitoring and site-specific rangeland health determinations rather than predetermined timelines. Return livestock grazing to pre-fire levels when post-fire monitoring data shows established objectives have been met or have been achieved to an extent allowed by site potential. Require the use of credible data as previously defined to make these determinations. Initial post-fire monitoring data should be collected within two growing seasons of the fire and can be collected outside the agency if the appropriate monitoring protocols are followed along with credible data criteria.



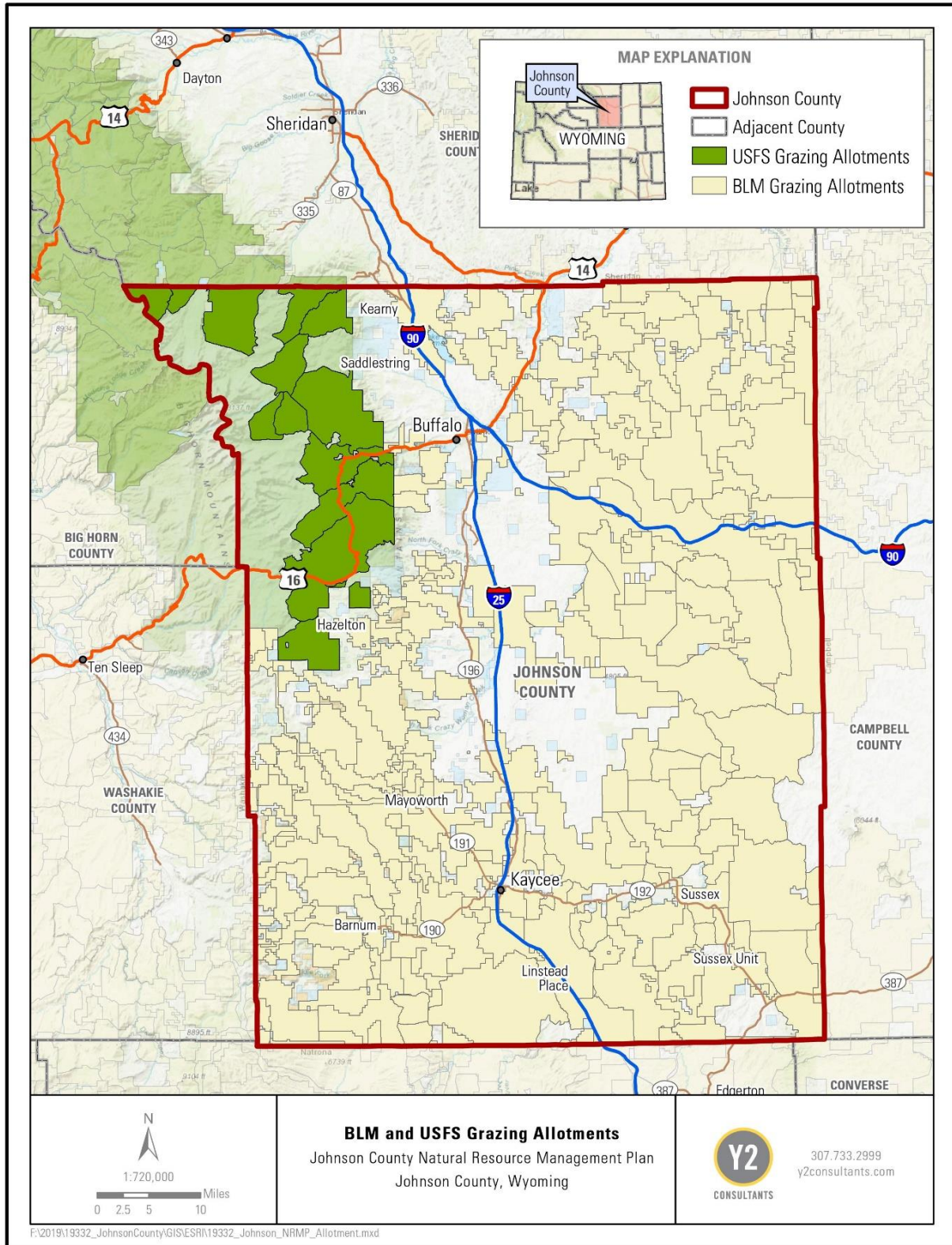


Figure 18. Johnson County Grazing Allotments.





## 7.3 PREDATOR CONTROL & LIVESTOCK PREDATION

### History, Custom, and Culture

Predatory wildlife is important to the ecology of an ecosystem. However, predators have negative impacts on livestock operations, developing communities, and other agriculture operations. For these reasons, it is important to properly manage predators to ensure safe communities and stock, and healthy functioning ecosystems.

During the settlement of the western states, depredation was an issue across livestock operations. Predators were controlled on an individual basis until the early 1900s, when stockgrowers began asking for government assistance. By the 1960s, with the release of the Leopold Report, the importance of proper management of predators became known (deCalesta, n.d.). The common public mindset began to shift to the control of predators threatening stock operations and communities while allowing natural predator populations to exist (deCalesta, n.d.).

### Resource Assessment and Legal Framework

The Animal and Plant Health Inspection Service (APHIS) is located within the Department of Agriculture and provides a Wildlife Damage Program and a Pests and Diseases Program. The Wildlife Damage Program researches and develops wildlife damage management methods and provides resources to the public (APHIS, n.d.). The Wyoming State Legislature established predator control statutes in Title 11, Chapter 6. The statutes provide for general provisions, district boards, and the Wyoming State Animal Damage Management Board.

Within the County, the Johnson County Predator Control Board directly administers the Wildlife Damage Program. Wildlife population management through sportsman hunting and trapping also occurs throughout the County. Predator control within the County affects the economic stability of the livestock industry and the sport hunting/fishing industry. Predator control has been used to protect the health and safety of the public by reducing human-wildlife conflict and the spread of diseases commonly carried by predators. The more common predators in Johnson County and the surrounding area include mountain lion, grizzly bear, black bear, gray wolf, bobcat, coyote, fox, skunk, raccoon, and multiple birds of prey. Eagles and coyotes can have a significant effect on sheep operations in the County. It is important to recognize that changes in wildlife population dynamics and management in surrounding areas are likely to influence wildlife populations and behavior in Johnson County. Pursuant to State statute, the County establishes and implements a cooperative plan for predator control that incorporates coordination with APHIS and County resources where available.

### Resource Management Objective:

- A. Predator populations are managed to maintain healthy ecological levels, while still prioritizing reducing or eliminating the occurrence of livestock depredation and the health and welfare of citizens of Johnson County.



## Priorities:

1. Support selective predator control as a valid means of increasing the productivity of lands within the County and as a valid method of attaining sustainability of the wildlife and domestic livestock populations.
2. Predator control measures are supported on all lands within the County.
3. Support recognized proactive efforts such as aerial hunting, snares, and leg traps to control predator populations.
4. The County opposes restrictions to current predator control methods.
5. Predator species such as grizzly bears and wolves should be deterred from migrating or re-locating to areas that impact the health, safety, and welfare of the people.
6. When addressing a decline in sensitive species, predator control should be employed prior to placing any restrictions on resource-based industries like livestock grazing. Only when predation is determined to not be the cause of decline should restrictions on the resource industries be considered prior to predator management.
7. Federal agencies should coordinate with the County in the determination of any impact of management of predator species when related to the management of ESA listed species or the use of APHIS funds, as required by Federal agency mandates. This includes impacts on the economy, culture, custom and safety of the residents of the County.
8. Support predator control as an effective method for protecting ESA listed species and game bird populations to include, but not limited to, sage-grouse, chukars, quail, Hungarian partridges, pheasants, turkeys, ducks, geese, doves, and swans.
9. Support predator control as a valid method of increasing the productivity of the public lands upon which the economy of the County is dependent. Productivity includes higher survivability of the offspring of wildlife and livestock.
10. The use of M44's or Cyanide bombs for Predator control on public lands should be discouraged, unless properly monitored by the local control board, as it raises the potential of conflicts with recreating public activities and their pets.

## 7.4 NOXIOUS WEEDS AND INVASIVE SPECIES

### History, Custom, and Culture

Noxious and invasive species can be plants, animals, diseases or insects. Invasive species and pest management is defined as the ability to control species and pests that interfere with management objectives. An invasive species can be a native or non-native species that is occurring where it is not wanted or in unwanted numbers that may result in negative economic impacts. A noxious weed is any plant designated by Federal, State, or Local government officials as injurious to public health, agriculture, recreation, wildlife, or property. Once a weed is classified as noxious, authorities can implement quarantines and take other actions to contain or destroy the weed and limit its spread. (Weed Science Society of America, 2016)

Current control tactics include but are not limited to:

- Education (plant identification, life cycles, mapping infestations, etc.).
- Prevention (cleaning equipment, buying quality seed, rangeland management, early control, etc.).





- Mechanical & physical controls (burning, mowing, cultivation, rotating land uses, establishment of desirable competitive plants, etc.).
- Biological (grazing, parasites, pathogens, etc.).
- Chemical (herbicides, weed oils, plant growth regulators, etc.).
- Law enforcement (remedial requirements, hearings, etc.).
- Training (commercial applicator training and certification, etc.).
- Rodent control (minimize disease threats and control losses).
- Board of County Commissioners actions (emergency declarations, budgeting, public meetings, etc.) (Wyoming Weed and Pest Council, n.d.).

Johnson County has traditionally practiced weed and pest control to increase the productivity of lands within the County and to promote the health, safety, and general welfare of residents. The Johnson County Weed & Pest “strives to have effective programs for the management of noxious weeds and pests by promoting and coordinating management and control through integrated pest management techniques, cooperation with landowners, agencies, organizations, and by providing technical expertise and education opportunities to all within the county” (Johnson County Weed and Pest, 2020)

The Johnson County Weed & Pest was established per the Wyoming Weed & Pest Control Act of 1973, which stated that all private, state, federal, and municipally owned lands are included in the District with the boundaries of the District the same as those of the county.

### Resource Assessment and Legal Framework

The Wyoming Weed and Pest Act of 1973, as enacted by the legislature of Wyoming, created Weed and Pest Control Districts and the regulations which govern the districts. Within the Act, the composition of districts is defined at W.S. § 11-5-103:

*“All land within the boundaries of Wyoming including all Federal, State, private and municipally owned lands, is hereby included in the weed and pest districts within the County in which the land is located,”*

The act also specifically defines which weeds and pests are designated as weeds and pests in W.S. § 11-5-102. The Weed and Pest Act of 1973 in W.S. § 11-5-109 also spells out enforcement provisions which could result in heavy fines if persons are convicted.

*“A landowner who is responsible for an infestation and fails or refuses to perform the remedial requirements for the control of the weed or pest [...] may be fined. [...] Any person accused under this act is entitled to a trial by jury.” (W.S. §11-5-109e)*

The District Board accepts the directive of the Act and takes their responsibilities seriously. Programs are in place with the long-term goal of continuity and sustainability in managing Designated Weeds and Pests and Declared Species. All control tactics within the Integrated Pest Management toolbox are considered, within the limitations of an annual budget. Realizing in most cases eradication is not possible across a landscape, it still becomes the primary focus of



new or insipient invasions. Paramount to that effort is the statewide concept of Early Detection Rapid Response and the Play-Clean-Go initiative.

Another State Statute, the Special Management Program (SMP), formally known as the Leafy Spurge Law, provides for a District to request an additional mill levy from the County Commissioners for the purpose of implementing an integrated management system on up to two undesirable plants, pests or combination thereof. However, leafy spurge shall receive priority in the program. The District had carried out SMPs on leafy spurge and salt cedar until recently, when the mill values started to decline. Additionally, the District had been able to reduce salt cedar infestations to the point where that species could be adequately funded through the District's General fund under the first mill. Accordingly, 100% of the funding generated under the SMP mill levy goes towards leafy spurge control in the County. Under this Statute, all State or Federal agencies owning or administering lands which are untaxed for the purpose of this Act, shall contribute the total cost of the treatment program on those lands, obviously within the limitations of their respective budgets.

Funding for a long-term strategy implementing weed and pest control tactics has been lacking. Various State and Federal agencies support weed and pest management by utilizing funds from discretionary or general fund sources. This only secures short-term funding for specific weed and pest infestations that generally last no more than one season.

Johnson County works to suppress and eradicate all federally designated, State of Wyoming designated, and Johnson County declared weeds and pests. Additionally, the County pursues efforts to educate the public about invasive species and pests that are a threat to Johnson County. (Johnson County Weed and Pest, 2020)

The current federal noxious weeds list is maintained on the [USDA Plants Database](#)<sup>23</sup> (NRCS, 2019). The declared Johnson County noxious weeds are:

- Wild licorice (*Glycyrrhiza lepidota*)
- Common mullein (*Verbascum thapsus*)
- Curly dock (*Rumex crispus*)
- Common Cocklebur (*Xanthium strumarium*)
- Puncturevine (*Tribulus terrestris*)
- Buffalobur (*Solanum rostratum*)
- Tall larkspur (*Delphinium exaltatum*)
- Black Henbane (*Hyoscyamus niger*)
- Curlycup gumweed (*Grindelia squarrosa*)
- Moth Mullein (*Verbascum blattaria*)
- Rocky Mtn Bee Plant (*Cleome serrulata*)
- Orange Hawkweed (*Pilosella aurantiaca*)

Currently the Weed and Pest does not have cheatgrass on its Declared list nor is it on the State Designated list, mostly due to the cost of controlling the species. However, the County recognizes Weed and Pest's role in coordinating efforts with State and Federal Agencies for cheatgrass control due to its threat to grassland and sagebrush ecosystems, wildlife and livestock grazing and health.



In addition to these plants, aquatic plants like hydrilla (*Hydrilla verticillata*), Eurasian watermilfoil (*Myriophyllum spicatum*), curly pondweed (*Potamogeton crispus*) and didymo (rock snot) (*Didymosphenia geminata*) are of concern. A number of animal species are also of concern such as aquatic invasive species like zebra and quagga mussels (*Dreissena polymorpha*, *Dreissena bugensis*), New Zealand mudsnail (*Potamopyrgus antipodarum*), Asian carp (*Cyprinus* spp.) and rusty crayfish (*Orconectes rusticus*). Almost all of these species can have a negative impact on irrigation structures if they become established. White pine blister rust (*Cronartium ribicola*), pine borers (*Dendroctonus* spp.), and spruce budworms (*Choristoneura* spp.) can also be problem invaders in the forested regions of the County.

### Resource Management Objective:

- A. Noxious weeds and invasive species (plants and animals) are managed to maintain healthy ecological levels using best management practices.

### Priorities:

1. Support and encourage control efforts on the State Designated List in Wyoming and Johnson County Declared species.
2. Support and encourage State and Federal Agency participation in cooperative programs for Designated and Declared species.
3. Promote coordination between Local, State, and Federal agencies to allow Johnson County Weed & Pest access to and across public lands as necessary to carry out active control measures on public, state and private lands.
4. Evaluate prescribed burns and capitalize on wildfires as an opportunity to control weed species and enhance rangeland health .
5. Encourage prescriptive grazing techniques to control or manage noxious or invasive plant species. Work with State and Federal land managers to provide flexibility for permittees/lessees to utilize this control option.
6. Encourage weed control through the use of bio-agents specific to the target weed.
7. Elevate the awareness and priority of controlling any new or existing infestations of Ventenata in Johnson County.
8. Elevate the awareness and education of Medusahead rye to the public to keep it out of Johnson County.
9. Support ongoing efforts and additional research to control cheatgrass populations.
10. The County does not support listing of cheatgrass as a noxious weed.
11. The County will support habitat enhancement projects that have a defined and funded weed control and monitoring plan over the anticipated life of the enhancement.
12. The County encourages Federal agencies to consider how their activities might have an adverse effect on Historical or Cultural sites in the County.
13. Support and encourage Federal agency processes that consider adaptive or new control techniques and pesticides.
14. The County recognizes prairie dogs, as a State Designated pest, represent a production and economic concern for the landowner and the County, a hazard to livestock production, and a serious threat to rangeland health into the future. The County therefore supports and encourages programs to mitigate prairie dogs; and encourages State and



Federal Agencies to adopt policies allowing for prairie dog control as good neighbors and responsible stewards of the lands they are entrusted to manage.

15. The County supports weed control practices that include mapping as an integrated management tool.
16. Support the prevention and management of aquatic nuisance species, although not listed Designated or Declared, (i.e. zebra mussels, quagga mussels) on all waters within Johnson County.
17. Support the Play-Clean-Go initiative and other education/awareness programs for public and private land users in weed identifications and understanding vectors of weed spread.
18. Support the use of aerial equipment such as drones, helicopters or fixed wing as a critical use for weed monitoring and control.
19. Support herbicide use in the wilderness through non-motorized ground treatments.
20. Support the management and control of annual grasses (i.e. cheatgrass) on public lands to lessen its spread and detrimental effects to landscapes.
21. Ongoing research and experimental options should be supported for the management of invasive and noxious species.
22. County supports and encourages growing and feeding of certified weed free forage and hay, with certifications based on the standards created by North American Invasive Species Management Association (NAISMA) and adopted by the Wyoming Weed and Pest Council.
23. Support feeding of hay and other forage on public lands.



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### Photo Credits

All photos were provided by the Johnson County NRMP steering committee. Historic photos of Johnson County are credited to the Jim Gatchell Memorial Museum.

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## APPENDIX A: TABLES

**Table 5: Wyoming Tier 1 Species of Conservation Priority. (WGFD, 2017b)**

Species	Common Name	Priority Tier
<b>Amphibians</b>		
<i>Anaxyrus baxteri</i>	Wyoming toad	I
<i>Anaxyrus boreas</i>	western toad	I
<b>Birds</b>		
<i>Accipiter gentilis</i>	Northern Goshawk	I
<i>Athene cunicularia</i>	Burrowing Owl	I
<i>Charadrius montanus</i>	Mountain Plover	I
<i>Gavia immer</i>	Common Loon	I
<b>Fish</b>		
<i>Catostomus discobolus</i>	bluehead sucker	I
<i>Catostomus latipinnis</i>	flannelmouth sucker	I
<i>Gila robusta</i>	roundtail chub	I
<i>Nocomis biguttatus</i>	hornyhead chub	I
<i>Rhinichthys osculus thermalis</i>	Kendall Warm Springs dace	I
<b>Mammals</b>		
<i>Lynx canadensis</i>	Canada lynx	I
<i>Mustela nigripes</i>	black-footed ferret	I
<i>Thomomys clusius</i>	Wyoming pocket gopher	I
<b>Reptiles</b>		
<i>Crotalus oreganus concolor</i>	midget faded rattlesnake	I
<b>Mollusks</b>		
<i>Lampsilis cardium</i>	plain pocketbook	I
<i>Fluminicola coloradoensis</i>	Green River pebblesnail	I
	mountainsnails (many species)	I



**Table 6: Wyoming Tier 2 Species of Conservation Priority. (WGFD, 2017b)**

Species	Common Name	Priority Tier
<b>Amphibians</b>		
<i>Anaxyrus cognatus</i>	Great Plains toad	II
<i>Lithobates pipiens</i>	northern leopard frog	II
<i>Lithobates sylvaticus</i>	wood frog	II
<i>Rana luteiventris</i>	Columbia spotted frog	II
<i>Spea bombifrons</i>	plains spadefoot	II
<i>Spea intermontana</i>	Great Basin spadefoot	II
<b>Birds</b>		
<i>Aechmophorus clarkii</i>	Clark’s Grebe	II
<i>Aechmophorus occidentalis</i>	Western Grebe	II
<i>Aegolius funereus</i>	Boreal Owl	II
<i>Ammodramus bairdii</i>	Baird’s Sparrow	II
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	II
<i>Aphelocoma woodhouseii</i>	Woodhouse’s Scrub-jay	II
<i>Aquila chrysaetos</i>	Golden Eagle	II
<i>Archilochus alexandri</i>	Black-chinned Hummingbird	II
<i>Ardea herodias</i>	Great Blue Heron	II
<i>Artemisiospiza nevadensis</i>	Sagebrush Sparrow	II
<i>Asio flammeus</i>	Short-eared Owl	II
<i>Baeolophus ridgwayi</i>	Juniper Titmouse	II
<i>Bartramia longicauda</i>	Upland Sandpiper	II
<i>Botaurus lentiginosus</i>	American Bittern	II
<i>Bubulcus ibis</i>	Cattle Egret	II
<i>Buteo regalis</i>	Ferruginous Hawk	II
<i>Buteo swainsoni</i>	Swainson’s Hawk	II
<i>Calcarius ornatus</i>	Chestnut-collared Longspur	II
<i>Centrocercus urophasianus</i>	Greater Sage Grouse	II
<i>Chlidonias niger</i>	Black Tern	II
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	II
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	II
<i>Cygnus buccinator</i>	Trumpeter Swan	II
<i>Dolichonyx oryzivorus</i>	Bobolink	II
<i>Egretta thula</i>	Snowy Egret	II
<i>Falco peregrinus</i>	Peregrine Falcon	II
<i>Geothlypis tolmiei</i>	MacGillivray’s Warbler	II
<i>Glaucidium gnoma</i>	Northern Pygmy Owl	II
<i>Haliaeetus leucocephalus</i>	Bald Eagle	II



<i>Histrionicus histrionicus</i>	Harlequin Duck	II
<i>Hydroprogne caspia</i>	Caspian Tern	II
<i>Icterus parisorum</i>	Scott's Oriole	II
<i>Lanius ludovicianus</i>	Loggerhead Shrike	II
<i>Leucophaeus pipixcan</i>	Franklin's Gull	II
<i>Leucosticte atrata</i>	Black Rosy-finch	II
<i>Leucosticte australis</i>	Brown-capped Rosy-finch	II
<i>Loxia curvirostra</i>	Red Crossbill	II
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	II
<i>Melanerpes lewis</i>	Lewis's Woodpecker	II
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher	II
<i>Nucifraga columbiana</i>	Clark's Nutcracker	II
<i>Numenius americanus</i>	Long-billed Curlew	II
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron	II
<i>Oreoscoptes montanus</i>	Sage Thrasher	II
<i>Oreothlypis virginiae</i>	Virginia's Warbler	II
<i>Pelecanus erythrorhynchos</i>	American White Pelican	II
<i>Picoides arcticus</i>	Black-backed Woodpecker	II
<i>Plegadis chihi</i>	White-faced Ibis	II
<i>Psaltriparus minimus</i>	Bushtit	II
<i>Rhynchophanes mccownii</i>	McCown's Longspur	II
<i>Selasphorus calliope</i>	Calliope Hummingbird	II
<i>Selasphorus rufus</i>	Rufous Hummingbird	II
<i>Setophaga nigrescens</i>	Black-throated Gray Warbler	II
<i>Sitta pygmaea</i>	Pygmy Nuthatch	II
<i>Sphyrapicus thyroideus</i>	Williamson's Sapsucker	II
<i>Spiza americana</i>	Dickcissel	II
<i>Spizella breweri</i>	Brewer's Sparrow	II
<i>Sterna forsteri</i>	Forster's Tern	II
<i>Strix nebulosa</i>	Great Gray Owl	II
<i>Tympanuchus phasianellus columbianus</i>	Columbian Sharp-tailed Grouse	II
<i>Vireo olivaceus</i>	Red-eyed Vireo	II
<i>Vireo vicinior</i>	Gray Vireo	II
<b>Fish</b>		
<i>Chrosomus neogaeus</i>	finescale dace	II
<i>Etheostoma exile</i>	Iowa darter	II
<i>Etheostoma spectabile</i>	orangethroat darter	II
<i>Fundulus kansae</i>	Northern Plains killifish	II
<i>Fundulus sciadicus</i>	plains topminnow	II



<i>Hiodon alosoides</i>	goldeye	II
<i>Hybognathus argyritis</i>	western silvery minnow	II
<i>Hybognathus placitus</i>	plains minnow	II
<i>Lepidomeda copei</i>	northern leatherside chub	II
<i>Lota lota</i>	burbot	II
<i>Macrhybopsis gelida</i>	sturgeon chub	II
<i>Margariscus nachtriebi</i>	northern pearl dace	II
<i>Oncorhynchus clarkii bouvieri</i>	Yellowstone cutthroat trout	II
<i>Oncorhynchus clarkii pleuriticus</i>	Colorado River cutthroat trout	II
<i>Oncorhynchus clarkii spp.</i>	Snake River cutthroat trout	II
<i>Oncorhynchus clarkii utah</i>	Bonneville cutthroat trout	II
<i>Phenacobius mirabilis</i>	suckermouth minnow	II
<i>Sander canadensis</i>	sauger	II
<i>Scaphirhynchus platyrhynchus</i>	shovelnose sturgeon	II
<b>Mammals</b>		
<i>Alces americanus</i>	moose	II
<i>Antrozous pallidus</i>	pallid bat	II
<i>Brachylagus idahoensis</i>	pygmy rabbit	II
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	II
<i>Cynomys leucurus</i>	white-tailed prairie dog	II
<i>Cynomys ludovicianus</i>	black-tailed prairie dog	II
<i>Geomys lutescens</i>	Sand Hills pocket gopher	II
<i>Glaucomys sabrinus</i>	northern flying squirrel	II
<i>Gulo gulo</i>	wolverine	II
<i>Lemmiscus curtatus</i>	sagebrush vole	II
<i>Lontra canadensis</i>	northern river otter	II
<i>Microtus richardsoni</i>	water vole	II
<i>Myotis ciliolabrum</i>	western small-footed myotis	II
<i>Myotis lucifugus</i>	little brown myotis	II
<i>Myotis septentrionalis</i>	northern long-eared myotis	II
<i>Myotis thysanodes</i>	fringed myotis	II
<i>Ochotona princeps</i>	American pika	II
<i>Ovis canadensis</i>	bighorn sheep	II
<i>Peromyscus crinitus</i>	canyon deer mouse	II
<i>Peromyscus truei</i>	piñon deer mouse	II
<i>Reithrodontomys montanus</i>	plains harvest mouse	II
<i>Sorex nanus</i>	dwarf shrew	II
<i>Spilogale putorius</i>	eastern spotted skunk	II
<i>Tamias dorsalis</i>	cliff chipmunk	II



<i>Thomomys idahoensis</i>	Idaho pocket gopher	II
<i>Vulpes velox</i>	swift fox	II
<i>Zapus hudsonius preblei</i>	Preble's meadow jumping mouse	II
<b>Reptiles</b>		
<i>Apalone spinifera spinifera</i>	eastern spiny softshell	II
<i>Charina bottae</i>	northern rubber boa	II
<i>Lampropeltis triangulum multistriata</i>	pale milksnake	II
<i>Pituophis catenifer deserticola</i>	Great Basin gophersnake	II
<i>Urosaurus ornatus wrighti</i>	northern tree lizard	II
<b>Crustaceans</b>		
<i>Branchinecta constricta</i>	constricted fairy shrimp	II
<i>Orconectes neglectus</i>	ringed crayfish	II
<i>Pacifastacus gambelii</i>	pilose crayfish	II
<i>Streptocephalus mackini</i>	Mackin fairy shrimp	II
<b>Mollusks</b>		
<i>Anodonta californiensis</i>	California floater	II
<i>Anodontoides ferussacianus</i>	cylindrical papershell	II
<i>Oreohelix pygmaea</i>	pygmy mountainsnail	II
<i>Oreohelix strigosa cooperi</i>	Cooper's rocky mountainsnail	II
<i>Oreohelix yavapai</i>	yavapai mountainsnail	II
<i>Physa spelunca</i>	cave physa	II
<i>Pyrgulopsis robusta</i>	Jackson Lake springsnail	II
	aquatic snails (many species)	II
	land snails (many species)	II





**Table 7: Wyoming Tier 3 Species of Conservation Priority. (WGFD, 2017b)**

Species	Common Name	Priority Tier
<b>Amphibians</b>		
<i>Ambystoma mavortium</i>	western tiger salamander	III
<b>Birds</b>		
<i>Anthus rubescens</i>	American Pipit	III
<i>Catherpes mexicanus</i>	Canyon Wren	III
<i>Charadrius nivosus</i>	Snowy Plover	III
<i>Chordeiles minor</i>	Common Nighthawk	III
<i>Empidonax traillii</i>	Willow Flycatcher	III
<i>Falco columbarius</i>	Merlin	III
<i>Falco sparverius</i>	American Kestrel	III
<i>Geothlypis trichas</i>	Common Yellowthroat	III
<i>Passerina caerulea</i>	Blue Grosbeak	III
<i>Polioptila caerulea</i>	Blue-gray Gnatcatcher	III
<i>Progne subis</i>	Purple Martin	III
<i>Psiloscoops flammeolus</i>	Flammulated Owl	III
<i>Rallus limicola</i>	Virginia Rail	III
<i>Thryomanes bewickii</i>	Bewick’s Wren	III
<b>Fish</b>		
<i>Hybognathus hankinsoni</i>	brassy minnow	III
<i>Luxilus cornutus</i>	common shiner	III
<i>Notropis dorsalis</i>	bigmouth shiner	III
<i>Platygobio gracilis</i>	flathead chub	III
<b>Mammals</b>		
<i>Bassariscus astutus</i>	ringtail	III
<i>Chaetodipus hispidus</i>	hispid pocket mouse	III
<i>Euderma maculatum</i>	spotted bat	III
<i>Lasiurus borealis</i>	eastern red bat	III
<i>Mustela nivalis</i>	least weasel	III
<i>Myotis evotis</i>	long-eared myotis	III
<i>Myotis volans</i>	long-legged myotis	III
<i>Myotis yumanensis</i>	yuma myotis	III
<i>Perognathus fasciatus</i>	olive-backed pocket mouse	III
<i>Perognathus flavescens</i>	plains pocket mouse	III
<i>Perognathus flavus</i>	silky pocket mouse	III
<i>Perognathus mollipilosus</i>	Great Basin pocket mouse	III
<i>Sciurus aberti</i>	Abert’s squirrel	III
<i>Sorex haydeni</i>	Hayden’s shrew	III



<i>Sorex hoyi</i>	American pygmy shrew	III
<i>Sorex preblei</i>	Preble's shrew	III
<i>Spilogale gracilis</i>	western spotted skunk	III
<i>Tamias amoenus</i>	yellow-pine chipmunk	III
<i>Tamias umbrinus</i>	Uinta chipmunk	III
<i>Xerospermophilus spilosoma</i>	spotted ground squirrel	III
<i>Zapus hudsonius</i>	meadow jumping mouse	III
<b>Crustaceans</b>		
<i>Cambarus diogenes</i>	devil crayfish	III
<i>Orconectes immunis</i>	calico/papershell crayfish	III
<i>Thamnocephalus platyurus</i>	beavertail fairy shrimp	III
	fairy, tadpole, and clam shrimp (many species)	III
<b>Mollusks</b>		
<i>Gyraulus parvus</i>	ash gyro	III
<i>Ferrissia rivularis</i>	creeping ancyliid	III
<i>Fossaria dalli</i>	dusky fossaria	III
<i>Discus whitneyi</i>	forest disc	III
<i>Pyganodon grandis</i>	giant floater	III
<i>Planorbella trivolvis</i>	marsh rams-horn	III
<i>Vallonia gracilicosta</i>	multirib vallonia	III
<i>Physa acuta</i>	pewter physa	III
	pill or fingernail clams (many species)	III
<i>Fossaria bulimoides</i>	prairie fossaria	III
<i>Zonitoides arboreus</i>	quick gloss	III
<i>Oreohelix strigosa</i>	Rocky Mountain mountainsnail	III
	stagnicola pond snails (many species)	III
<i>Oreohelix subrudis</i>	subalpine mountainsnail	III
<i>Physa gyrina</i>	tadpole physa	III
<i>Promenetus umbilicatellus</i>	umbilicate sprite	III
<i>Vitrina pellucida</i>	western glass-snail	III



**Table 8: BLM's Sensitive Species List for Wyoming. (BLM, 2010)**

Species	Common Name
<b>Amphibians</b>	
<i>Bufo boreas boreas</i>	Boreal Toad (Northern Rocky Mountain Population)
<i>Rana pipiens</i>	Northern Leopard Frog
<i>Rana luteiventris</i>	Columbia Spotted Frog
<i>Spea intermontana</i>	Great Basin Spadefoot
<b>Birds</b>	
<i>Accipiter gentilis</i>	Northern Goshawk
<i>Ammodramus bairdii</i>	Baird's Sparrow
<i>Amphispiza belli</i>	Sage Sparrow
<i>Athene cunicularia</i>	Burrowing Owl
<i>Buteo regalis</i>	Ferruginous Hawk
<i>Centrocercus urophasianus</i>	Greater Sage-grouse
<i>Charadrius montanus</i>	Mountain Plover
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo
<i>Cygnus buccinator</i>	Trumpeter Swan
<i>Falco peregrinus</i>	Peregrine Falcon
<i>Haliaeetus leucocephalus</i>	Bald Eagle
<i>Lanius ludovicianus</i>	Loggerhead Shrike
<i>Numenius americanus</i>	Long-billed Curlew
<i>Oreoscoptes montanus</i>	Sage Thrasher
<i>Plegadis chichi</i>	White-faced Ibis
<i>Spizella breweri</i>	Brewer's Sparrow
<i>Tympanuchus phasianellus columbianus</i>	Columbian Sharp-tailed Grouse
<b>Fish</b>	
<i>Catostomus discobolus</i>	Bluehead Sucker
<i>Catostomus latipinnis</i>	Flannelmouth Sucker
<i>Lepidomeda copei</i>	Northern Leatherside Chub
<i>Gila robusta</i>	Roundtail Chub
<i>Oncorhynchus clarkii bouvieri</i>	Yellowstone Cutthroat Trout
<i>Oncorhynchus clarkii ssp. (O. c. behnkei)</i>	Fine-spotted Snake River Cutthroat Trout
<i>Oncorhynchus clarkii pleuriticus</i>	Colorado River Cutthroat Trout
<i>Oncorhynchus clarkii Utah</i>	Bonneville Cutthroat Trout
<i>Nocomis biguttatus</i>	Hornyhead Chub
<b>Mammals</b>	
<i>Brachylagus idahoensis</i>	Pygmy Rabbit
<i>Corynorhinus townsendii</i>	Townsend's Big-eared Bat
<i>Cynomys leucurus</i>	White-tailed Prairie Dog
<i>Cynomys ludovicianus</i>	Black-tailed Prairie Dog



<i>Euderma maculatum</i>	Spotted Bat
<i>Myotis evotis</i>	Long-eared Myotis
<i>Myotis thysanodes</i>	Fringed Myotis
<i>Thomomys clusius</i>	Wyoming Pocket Gopher
<i>Thomomys idahoensis</i>	Idaho Pocket Gopher
<i>Vulpes velox</i>	Swift Fox
<i>Zapus hudsonius preblei</i>	Preble's Meadow Jumping Mouse
<b>Reptiles</b>	
<i>Crotalus viridis concolor</i>	Midget Faded Rattlesnake
<b>Plants</b>	
<i>Antennaria arcuata</i>	Meadow Pussytoes
<i>Aquilegia laramiensis</i>	Laramie Columbine
<i>Artemisia porteri</i>	Porter's Sagebrush
<i>Astragalus diversifolius</i>	Meadow Milkvetch
<i>Astragalus gilviflorus var. purpureus</i>	Dubois Milkvetch
<i>Astragalus jejunus var. articulatus</i>	Hyattville Milkvetch
<i>Astragalus proimanthus</i>	Precocious Milkvetch
<i>Astragalus racemosus var. treleasei</i>	Trelease's Milkvetch
<i>Boechera (Arabis) pusilla</i>	Small Rock Cress
<i>Botrychium lineare</i>	Slender Moonwort
<i>Cirsium aridum</i>	Cedar Rim Thistle
<i>Cirsium ownbeyi</i>	Ownbey's Thistle
<i>Cleome multicaulis</i>	Many-stemmed Spider-flower
<i>Cryptantha subcapitata</i>	Owl Creek Miner's Candle
<i>Cymopterus evertii</i>	Evert's Wafer-Parsnip
<i>Cymopterus williamsii</i>	Williams' Wafer-Parsnip
<i>Descurainia torulosa</i>	Wyoming Tansymustard
<i>Elymus simplex var. luxurians</i>	Dune Wildrye
<i>Ericameria discoidea var. winwardii</i>	Winward's narrow leaf goldenweed
<i>Lepidium integrifolium var. integrifolium</i>	Entire-Leaved Peppergrass
<i>Lesquerella arenosa var. argillosa</i>	Sidesaddle Bladderpod
<i>Lesquerella fremontii</i>	Fremont Bladderpod
<i>Lesquerella macrocarpa</i>	Large-fruited Bladderpod
<i>Lesquerella prostrata</i>	Prostrate Bladderpod
<i>Penstemon absarokensis</i>	Absaroka Beardtongue
<i>Penstemon acaulis var. acaulis</i>	Stemless Beardtongue
<i>Penstemon gibbensii</i>	Gibbens' Beardtongue
<i>Phlox pungens</i>	Beaver Rim Phlox
<i>Physaria condensata</i>	Tufted Twinpod
<i>Physaria dornii</i>	Dorn's Twinpod



<i>Physaria saximontana var. saximontana</i>	Rocky Mountain Twinpod
<i>Pinus albicaulis</i>	Whitebark Pine
<i>Pinus flexilis</i>	Limber Pine
<i>Rorippa calycina</i>	Persistent Sepal Yellowcress
<i>Shoshonea pulvinata</i>	Shoshonea
<i>Sphaeromeria simplex</i>	Laramie False Sagebrush
<i>Thelesperma caespitosum</i>	Green River Greenthread
<i>Thelesperma pubescens</i>	Uinta Greenthread
<i>Townsendia microcephala</i>	Cedar Mtn. Easter Daisy
<i>Trifolium barnebyi</i>	Barneby's Clover

**Table 9: Management Indicator Species/Focal Species for the Bighorn National Forest. (U.S. Forest Service, 2010)**

<b>Species</b>	<b>Common Name</b>
<b>Birds</b>	
<i>Sitta canadensis</i>	Red-breasted nuthatch
<i>Spizella breweri</i>	Brewer's sparrow
<i>Accipiter gentilis</i>	Northern goshawk
<b>Fish</b>	
<i>Oncorhynchus mykiss</i>	Rainbow trout
<b>Mammals</b>	
<i>Castor canadensis</i>	Beaver
<i>Cervus elaphus nelsoni</i>	Rocky Mountain elk
<i>Tamiasciurus hudsonicus</i>	Red squirrel



**Table 10: Threatened, Endangered, Proposed, Candidate and Forest Service Region 2 Sensitive Species for the Bighorn National Forest. (U.S. Forest Service, 2010)**

Species	Common Name	Status
<b>Amphibians</b>		
<i>Lithobates pipiens</i>	Northern leopard frog	R2 Sensitive Species
<i>Lithobates luteiventris</i>	Columbia spotted frog	R2 Sensitive Species
<i>Lithobates sylvatica</i>	Wood frog	R2 Sensitive Species
<b>Birds</b>		
<i>Histrionicus histrionicus</i>	Harlequin duck	R2 Sensitive Species
<i>Haliaeetus leucocephalus</i>	Bald eagle	Delisted
<i>Circus cyaneus</i>	Northern harrier	R2 Sensitive Species
<i>Accipiter gentilis</i>	Northern goshawk	R2 Sensitive Species
<i>Falco peregrinus anatum</i>	Peregrine falcon	Delisted
<i>Centrocercus urophasianus</i>	Greater sage grouse	R2 Sensitive Species
<i>Otus flammeolus</i>	Flammulated owl	R2 Sensitive Species
<i>Asio flammeus</i>	Short-eared owl	R2 Sensitive Species
<i>Aegolius funereus</i>	Boreal owl	R2 Sensitive Species
<i>Melanerpes lewis</i>	Lewis' woodpecker	R2 Sensitive Species
<i>Picoides tridactylus</i>	Three-toed woodpecker	R2 Sensitive Species
<i>Contopus cooperi</i>	Olive-sided flycatcher	R2 Sensitive Species
<i>Lanius ludovicianus</i>	Loggerhead shrike	R2 Sensitive Species
<i>Spizella breweri</i>	Brewer's sparrow	R2 Sensitive Species
<i>Amphispiza bellii</i>	Sage sparrow	R2 Sensitive Species
<i>Ammodramus savannarum</i>	Grasshopper sparrow	R2 Sensitive Species
<b>Fish</b>		
<i>Oncorhynchus clarki bouvieri</i>	Yellowstone cutthroat trout	R2 Sensitive Species
<i>Catostomus platyrhynchus</i>	Mountain sucker	R2 Sensitive Species
<b>Mammals</b>		
<i>Myotis thysanodes</i>	Fringed myotis	R2 Sensitive Species
<i>Euderma maculatum</i>	Spotted bat	R2 Sensitive Species
<i>Plecotus townsendii</i>	Townsend's big-eared bat	R2 Sensitive Species
<i>Microtus richardsoni</i>	Water vole	R2 Sensitive Species
<i>Martes americana</i>	American marten	R2 Sensitive Species
<i>Gulo gulo</i>	Wolverine	Proposed
<i>Lynx canadensis</i>	Canada lynx	Threatened
<i>Ovis canadensis canadensis</i>	Rocky Mountain bighorn sheep	R2 Sensitive Species
<b>Molluscs</b>		
<i>Oreohelix pygmaea</i>	Pygmy mountainsnail	R2 Sensitive Species
<i>Oreohelix strigosa cooperi</i>	Cooper's Rocky Mountainsnail	R2 Sensitive Species





<b>Plants</b>		
<i>Botrychium paradoxum</i> New taxon	Peculiar moonwort	R2 Sensitive Species
<i>Botrychium ascendens</i>	Upward-lobe moonwort	R2 Sensitive Species
<i>Cypripedium montanum</i>	Mountain lady's slipper	R2 Sensitive Species
<i>Cypripedium parviflorum</i>	Yellow lady's slipper	R2 Sensitive Species
<i>Eriophorum chamissonis</i>	Russet cotton-grass	R2 Sensitive Species
<i>Festuca hallii</i>	Hall's fescue	R2 Sensitive Species
<i>Parnassia kotzebuei</i>	Grass-of-parnassus	R2 Sensitive Species
<i>Penstemon caryi</i>	Cary beardtongue	R2 Sensitive Species
<i>Physaria didymocarpa</i> var. <i>Lanata</i>	Wooly twinpod	R2 Sensitive Species
<i>Pyrrocoma clementis</i> var. <i>villosa</i>	Hairy tranquil golden-weed	R2 Sensitive Species
<i>Rubus arcticus</i> ssp. <i>acaulis</i>	Northern blackberry	R2 Sensitive Species
<i>Utricularia minor</i>	Lesser bladderpod	R2 Sensitive Species



**Table 11: Regional Forester’s Sensitive Animal Species List for the Rocky Mountain Region. (U.S. Forest Service, 2017)**

Species	Common Name
<b>Amphibians</b>	
<i>Anaxyrus boreas boreas</i>	boreal toad
<i>Lithobates blairi</i>	plains leopard frog
<i>Lithobates pipiens</i>	northern leopard frog
<i>Lithobates sylvaticus</i>	wood frog
<i>Rana luteiventris</i>	Columbia spotted frog
<b>Birds</b>	
<i>Accipiter gentilis</i>	Northern Goshawk
<i>Aegolius funereus</i>	Boreal Owl
<i>Ammodramus savannarum</i>	Grasshopper Sparrow
<i>Artemisiospiza nevadensis</i>	Sagebrush Sparrow
<i>Asio flammeus</i>	Short-eared Owl
<i>Athene cunicularia</i>	Burrowing Owl
<i>Botaurus lentiginosus</i>	American Bittern
<i>Buteo regalis</i>	Ferruginous Hawk
<i>Calcarius ornatus</i>	Chestnut-collared Longspur
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse
<i>Charadrius montanus</i>	Mountain Plover
<i>Chlidonias niger</i>	Black Tern
<i>Circus cyaneus</i>	Northern Harrier
<i>Contopus cooperi</i>	Olive-sided Flycatcher
<i>Cygnus buccinator</i>	Trumpeter Swan
<i>Cypseloides niger</i>	Black Swift
<i>Falco peregrinus anatum</i>	Peregrine Falcon
<i>Haliaeetus leucocephalus</i>	Bald Eagle
<i>Histrionicus histrionicus</i>	Harlequin Duck
<i>Lagopus leucura</i>	White-tailed Ptarmigan
<i>Lanius ludovicianus</i>	Loggerhead Shrike
<i>Melanerpes lewis</i>	Lewis's Woodpecker
<i>Numenius americanus</i>	Long-billed Curlew
<i>Peucaea cassinii</i>	Cassin's Sparrow
<i>Picoides arcticus</i>	Black-backed Woodpecker
<i>Progne subis</i>	Purple Martin
<i>Psiloscops flammeolus</i>	Flammulated Owl
<i>Rhynchophanes mccownii</i>	McCown's Longspur
<i>Spizella breweri</i>	Brewer's Sparrow
<i>Tympanuchus cupido</i>	Greater Prairie-Chicken
<i>Tympanuchus phasianellus columbianus</i>	Columbian Sharp-tailed Grouse



<b>Fish</b>	
<i>Catostomus discobolus</i>	bluehead sucker
<i>Catostomus latipinnis</i>	flannelmouth sucker
<i>Catostomus platyrhynchus</i>	mountain sucker
<i>Catostomus plebeius</i>	Rio Grande sucker
<i>Chrosomus eos</i>	northern redbelly dace
<i>Chrosomus erythrogaster</i>	southern redbelly dace
<i>Chrosomus neogaeus</i>	finescale dace
<i>Couesius plumbeus</i>	lake chub
<i>Fundulus sciadicus</i>	Plains topminnow
<i>Gila pandora</i>	Rio Grande chub
<i>Gila robusta</i>	roundtail chub
<i>Hybognathus placitus</i>	plains minnow
<i>Macrhybopsis gelida</i>	sturgeon chub
<i>Margariscus nachtriebi</i>	northern pearl dace
<i>Nocomis biguttatus</i>	hornyhead chub
<i>Oncorhynchus clarkii bouvieri</i>	Yellowstone cutthroat
<i>Oncorhynchus clarkii pleuriticus</i>	Colorado River cutthroat
<i>Oncorhynchus clarkii virginalis</i>	Rio Grande cutthroat
<i>Platygobio gracilis</i>	flathead chub
<b>Insects</b>	
<i>Bombus occidentalis</i>	western bumble bee
<i>Capnia arapahoe</i>	Arapahoe snowfly
<i>Danaus plexippus plexippus</i>	monarch
<i>Hesperia ottoe</i>	Ottoe skipper
<i>Ochrotrichia susanae</i>	Susan's purse-making caddisfly
<i>Somatochlora hudsonica</i>	Hudsonian emerald
<i>Speyeria idalia</i>	regal fritillary
<i>Speyeria nokomis nokomis</i>	Nokomis fritillary, Great Basin silverspot
<b>Mammals</b>	
<i>Conepatus leuconotus</i>	American hog-nosed skunk
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat
<i>Cynomys gunnisoni</i>	Gunnison's prairie dog
<i>Cynomys leucurus</i>	white-tailed prairie dog
<i>Cynomys ludovicianus</i>	black-tailed prairie dog
<i>Euderma maculatum</i>	spotted bat
<i>Gulo gulo</i>	North American wolverine
<i>Lasiurus cinereus</i>	hoary bat
<i>Lontra canadensis</i>	river otter
<i>Martes americana</i>	American marten
<i>Microtus richardsoni</i>	water vole



<i>Myotis thysanodes</i>	fringed myotis
<i>Ovis canadensis canadensis</i>	Rocky Mountain bighorn sheep
<i>Ovis canadensis nelsoni</i>	desert bighorn sheep
<i>Sorex hoyi</i>	pygmy shrew
<i>Thomomys clusius</i>	Wyoming pocket gopher
<i>Vulpes macrotis</i>	kit fox
<i>Vulpes velox</i>	swift fox
<b>Molluscs</b>	
<i>Acroloxus coloradensis</i>	Rocky Mountain capshell
<i>Oreohelix pygmaea</i>	pygmy mountainsnail
<i>Oreohelix strigosa cooperi</i>	Cooper's Rocky Mountainsnail
<b>Reptiles</b>	
<i>Sistrurus catenatus edwardsii</i>	desert massasauga
<i>Storeria occipitomaculata pahasapae</i>	Black Hills redbelly snake



**Table 12: Regional Forester’s Sensitive Plant Species List for the Rocky Mountain Region. (U.S. Forest Service, 2017)**

Species	Common Name
<b>Non-Vascular</b>	
<i>Sphagnum angustifolium</i>	sphagnum
<i>Sphagnum balticum</i>	Baltic sphagnum
<b>Ferns &amp; Allies</b>	
<i>Botrychium ascendens</i>	trianglelobe moonwort
<i>Botrychium campestre</i>	Iowa moonwort, prairie moonwort
<i>Botrychium paradoxum</i>	peculiar moonwort
<i>Lycopodium complanatum</i>	groundcedar
<i>Selaginella selaginoides</i>	club spikemoss
<b>Angiosperms - Monocots</b>	
<i>Calochortus flexuosus</i>	winding mariposa lily
<i>Carex alopecoidea</i>	foxtail sedge
<i>Carex diandra</i>	lesser paniced sedge
<i>Carex livida</i>	livid sedge
<i>Cypripedium montanum</i>	mountain lady's slipper
<i>Cypripedium parviflorum</i>	lesser yellow lady's slipper
<i>Eleocharis elliptica</i>	elliptic spikerush, slender spikerush
<i>Epipactis gigantea</i>	stream orchid, giant helleborine
<i>Eriophorum chamissonis</i>	Chamisso's cottongrass
<i>Eriophorum gracile</i>	slender cottongrass
<i>Festuca hallii</i>	plains rough fescue
<i>Galearis rotundifolia</i>	roundleaf orchid
<i>Kobresia simpliciuscula</i>	simple bog sedge
<i>Liparis loeselii</i>	yellow widelip orchid
<i>Malaxis monophyllos var. brachypoda</i>	white adder's-mouth orchid
<i>Platanthera orbiculata</i>	lesser roundleaved orchid
<i>Ptilagrostis porteri</i>	Porter's false needlegrass
<i>Schoenoplectus hallii</i>	Hall's bulrush
<i>Triteleia grandiflora</i>	largeflower triteleia
<b>Angiosperms - Dicots</b>	
<i>Aliciella sedifolia</i>	stonecrop gilia
<i>Aquilegia chrysantha</i>	Rydberg's golden columbine
<i>Aquilegia laramiensis</i>	Laramie columbine
<i>Armeria maritima ssp. sibirica</i>	Siberian sea thrift
<i>Asclepias uncialis</i>	wheel milkweed
<i>Astragalus barrii</i>	Barr's milkvetch
<i>Astragalus iodopetalus</i>	violet milkvetch
<i>Astragalus leptaleus</i>	park milkvetch



<i>Astragalus missouriensis</i> var. <i>humistratus</i>	Missouri milkvetch, Archuleta milkvetch
<i>Astragalus proximus</i>	Aztec milkvetch
<i>Astragalus ripleyi</i>	Ripley's milkvetch
<i>Braya glabella</i>	smooth northern-rockcress
<i>Chenopodium cycloides</i>	sandhill goosefoot
<i>Cuscuta plattensis</i>	prairie dodder, Wyoming dodder
<i>Descurainia torulosa</i>	mountain tansymustard
<i>Draba exunguiculata</i>	clawless draba
<i>Draba grayana</i>	Gray's draba
<i>Draba smithii</i>	Smith's draba
<i>Draba weberi</i>	Weber's draba, Weber's whitlowgrass
<i>Drosera anglica</i>	English sundew
<i>Drosera rotundifolia</i>	roundleaf sundew
<i>Eriogonum brandegeei</i>	Brandegee's buckwheat
<i>Eriogonum exilifolium</i>	dropleaf buckwheat
<i>Eriogonum visherii</i>	Visher's buckwheat, Dakota buckwheat
<i>Gutierrezia elegans</i>	Lone Mesa snakeweed
<i>Ipomopsis aggregata</i> ssp. <i>weberi</i>	scarlet gilia
<i>Lesquerella fremontii</i>	Fremont's bladderpod
<i>Lesquerella pruinosa</i>	Pagosa Springs bladderpod
<i>Mimulus gemmiparus</i>	Rocky Mountain monkeyflower, budding monkeyflower
<i>Neoparrya lithophila</i>	Bill's neoparrya
<i>Oreoxis humilis</i>	Pike's Peak alpineparsley
<i>Packera mancosana</i>	Mancos shale packera
<i>Parnassia kotzebuei</i>	Kotzebue's grass of Parnassus
<i>Penstemon absarokensis</i>	Absaroka Range beardtongue
<i>Penstemon caryi</i>	Cary's beardtongue
<i>Penstemon degeneri</i>	Degener's beardtongue
<i>Penstemon harringtonii</i>	Harrington's beardtongue
<i>Physaria didymocarpa</i> var. <i>lanata</i>	common twinpod
<i>Physaria pulvinata</i>	cushion bladderpod
<i>Physaria scrotiformis</i>	west silver bladderpod
<i>Potentilla rupicola</i>	rock cinquefoil, Rocky Mountain cinquefoil
<i>Primula egaliksensis</i>	Greenland primrose
<i>Pyrrocoma carthamoides</i> var. <i>subsquarrosa</i>	largeflower goldenweed
<i>Pyrrocoma clementis</i> var. <i>villosa</i>	tranquil goldenweed
<i>Pyrrocoma integrifolia</i>	many-stemmed goldenweed
<i>Ranunculus grayi</i>	ice cold buttercup
<i>Rubus arcticus</i> ssp. <i>acaulis</i>	dwarf raspberry





<i>Salix arizonica</i>	Arizona willow
<i>Salix barrattiana</i>	Barratt's willow
<i>Salix candida</i>	sageleaf willow, sage willow
<i>Salix myrtilifolia</i>	blueberry willow
<i>Salix serissima</i>	autumn willow
<i>Sanguinaria canadensis</i>	bloodroot
<i>Shoshonea pulvinata</i>	Shoshone carrot
<i>Thalictrum heliophilum</i>	Cathedral Bluff meadow-rue
<i>Townsendia condensata var. anomala</i>	cushion Townsend daisy
<i>Utricularia minor</i>	lesser bladderwort
<i>Viburnum opulus var. americanum</i>	American cranberrybush, mooseberry
<i>Viola selkirkii</i>	Selkirk's violet
<i>Xanthisma coloradoense</i>	Colorado tansyaster
<i>Gymnosperms</i>	
<i>Pinus albicaulis</i>	whitebark pine



## APPENDIX B: WEBSITE LINKS IN DOCUMENT

1. USFS Guidelines for Road Maintenance Levels
  - a. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprd3793545.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3793545.pdf)
2. Wyoming Public Lands Initiative
  - a. <https://wcca.wygisc.org/wpli/hub/index.html>
3. Wyoming County Wildfire Protection Plans
  - a. <https://wsfd.wyo.gov/fire-management/fuels-mitigation/county-wildfire-protection-plans>
4. Buffalo Municipal Watershed Wildfire Hazard Mitigation Assessment Project
  - a. <https://wwdc.state.wy.us/consultants/Buffalo-Wildfire-Project-Information.pdf>
5. 2019 Rocky Mountain Region Aerial Survey Results
  - a. <https://usfs.maps.arcgis.com/apps/MapSeries/index.html?appid=120e0def66e74424a67628beab7464b9>
6. Wyoming Water Development Office Dam and Reservoir Planning
  - a. [https://wwdc.state.wy.us/dam\\_reservoir/dam\\_reservoir.html](https://wwdc.state.wy.us/dam_reservoir/dam_reservoir.html)
7. Wyoming Department of Environmental Equality Surface Water Quality Standards
  - a. <http://deq.wyoming.gov/wqd/surface-water-quality-standards-2/>
8. Wyoming Department of Environmental Equality Best Management Practices
  - a. <http://deq.wyoming.gov/wqd/non-point-source/resources/mgt-practices/>
9. FEMA National Flood Hazard Layer
  - a. <https://www.fema.gov/flood-maps/tools-resources/flood-map-products/national-flood-hazard-layer>
10. Wyoming State Wildlife Action Plan
  - a. <https://wgfd.wyo.gov/Habitat/Habitat-Plans/Wyoming-State-Wildlife-Action-Plan>
11. Environmental Conservation Online System
  - a. <https://ecos.fws.gov/ecp/>
12. Wildlife Habitat Management Areas
  - a. <https://wgfd.wyo.gov/Public-Access/WHMA>
13. Executive Order 2020-1 Wyoming Mule Deer and Antelope Migration Corridor Protection
  - a. <https://s3.us-east-1.wasabisys.com/localnews8.com/2020/02/Executive-Order-2020-01-1.pdf>
14. Wyoming Chronic Wasting Disease Management Plan
  - a. <https://wgfd.wyo.gov/WGFD/media/content/PDF/Get%20Involved/CWD/Final-WGFD-CWD-Management-Plan-7-2020-with-appendices.pdf>
15. Executive Order 2019-3 Greater Sage-Grouse Core Area Protection
  - a. [https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Sage%20Grouse/Governor-Gordon-Greater-Sage-Grouse-EO-2019-3\\_August-21-2019\\_Final-Signed\\_1.pdf](https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Sage%20Grouse/Governor-Gordon-Greater-Sage-Grouse-EO-2019-3_August-21-2019_Final-Signed_1.pdf)
16. Wyoming Game and Fish Stream Classifications
  - a. <http://wgfd.maps.arcgis.com/apps/MapTools/index.html?appid=31c38ed91cf04fb7bb8aebd29515e108>
17. U.S. Forest Service Paleontology



- a. <https://www.fs.usda.gov/science-technology/geology/paleontology>
18. U.S. Bureau of Reclamation Fossil Resources
  - a. <https://www.usbr.gov/cultural/fossil.html#:~:text=To%20date%2C%20Reclamation%20has%20documented,have%20occurred%20on%20Reclamation%20land.>
19. U.S. Fish and Wildlife Service Historic Preservation
  - a. <https://www.fws.gov/historicPreservation/crp/index.html>
20. U.S. BLM Paleontological Resources
  - a. <https://www.blm.gov/paleontology>
21. National Park Service Fossils and Paleontology Laws, Regulations, and Policies
  - a. <https://www.nps.gov/subjects/fossils/fossil-protection.htm>
22. Wyoming County Commissioner’s Association Socioeconomic Initiative
  - a. <https://www.wyo-wcca.org/index.php/initiatives/wcca-socioeconomic-initiative/>
23. USDA Introduced, Invasive, and Noxious Plants Database
  - a. <https://plants.usda.gov/java/noxious>
24. Stream Names in Johnson County, Wyoming
  - a. <https://www.mytopo.com/locations/features.cfm?s=WY&c=019&type=Stream>
25. 2001 Roadless Rule
  - a. <https://www.fs.fed.us/emc/nepa/roadless/2001RoadlessRuleFR.pdf>
26. BLM Manual 1626 – Travel and Transportation Management Manual
  - a. <file:///C:/Users/BreeL/Downloads/Media%20Center%20BLM%20Policy%20Manual%20MS%201626.pdf>



## APPENDIX C: STEERING COMMITTEE MEMBERS

Member	Affiliation
Jim Waller	Johnson County Planning & Zoning
Craig Cope	City of Buffalo Planning & Zoning
Zach Byram	Clear Creek Conservation District
Kelly Norris	Wyoming State Forestry Division
Joe Landsiedel	Timber Industry
Rick Pallister	Public Lands Association
Luke Todd	Clear Creek Conservation District Board
Rod Litzel	Johnson County Weed & Pest
Ben Schiffer	WWC Engineering
Kirby Camino	Sheep Industry/Predator Control Board
Nathan Williams	Southern Johnson County
Anita Bartlett	Powder River Conservation District
Barry Crago	Deputy County Attorney



## APPENDIX D: PUBLIC COMMENTS RECEIVED

Comment Received From	Comment Received	Response
Bighorn National Forest	<p>Page 1, last paragraph, 1st sentence – “agencies are required to identify and analyze the impacts to local economies and community.” We are unfamiliar with a specific analysis requirement for all local economies and communities. Executive Order 12898 directs each federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. For the Forest Service specifically, per USDA direction from 1995, where Forest Service proposals have the potential to adversely affect minority or low-income populations disproportionately, effects must be considered and disclosed (and mitigated to the degree possible) through NEPA analysis and documentation.</p> <p>If the county is referencing a different authority or requirement, please provide a specific citation.</p>	Citations were added to paragraph for better clarification.
Bighorn National Forest	2nd paragraph – Provide a formal citation with page numbers for consistency review definition.	Consistency review is explicitly described in NEPA and FLPMA



		and summarized in the introduction of the NRMP.
Bighorn National Forest	4th paragraph, 2nd sentence – Recommend adding the new CEQ citation: § 1501.1 NEPA thresholds.	Citation added.
Bighorn National Forest	Last paragraph, 1st sentence - Does 40 C.F.R. §§ 1506.2, 1506.2(d) include both EIS and EA documents or is it only an EIS that is required to have a consistency review?	NEPA does not distinguish between EAs and EISs. The county expects that consistency review applies to all NEPA decisions.
Bighorn National Forest	3rd paragraph, 1st sentence – “Some courts have even required agencies to follow NEPA when the agency spends a small amount of money on a project or program that they are not the lead agency.” Please consider updating this statement to be more in line with CEQ regulation language (e.g., a concise statement of what constitutes a “major federal action” as a threshold for requiring a NEPA process and include a citation). See CEQ 1508.1(q)(1).	Revised language.
Bighorn National Forest	4th paragraph, 2nd sentence – “A NRMP ensures that the federal agency addresses the county’s policies for virtually every federal decision without the burden of cooperating agency status.” Can you please provide a citation for this authority?	Clarified in the document. However, the preceding and following paragraphs speak for themselves and clearly lay out why adopting a plan ensures that virtually every agency decision must address the County's policies. By adopting a NRMP, agencies now have the obligation to review their decisions through the lenses of consistency review and coordination.





Bighorn National Forest	7th paragraph – “The fact that the USFS is directed to “coordinate” with local governments implies, by its plain meaning, that the USFS must engage in a process that involves more than simply “considering” the plans and policies of local governments; it must attempt to achieve compatibility between USFS plans and local land use plans.” Can you please keep a direct interpretation of the code to include only “coordinate” and remove the term “compatibility?” Otherwise this would appear to suggest that a forest plan revision or amendment would be triggered. The county has been closely involved as a cooperator in the prior 2005 forest plan revision and would be included in future forest plan revisions and amendments.	Compatibility needs to remain. It is acknowledged that the County was involved as a cooperating agency in 2005 and appreciated that the BBNF intends to keep the County involved as a cooperating agency in future revisions and amendments. However, as is explained in the commented paragraph, whenever such a plan revision or amendment occurs, there needs to be coordination with this NRMP, which should attempt to achieve compatibility with this NRMP whenever allowed by law and this obligation cannot only be pacified solely by allowing the County to be a cooperating agency.
Rob D. - Council for the Bighorn Range	Johnson County could separately participate in the NEPA process as a "cooperating agency" (p.3). Unlike the Falen Law Firm analysis, it does not require the federal agencies to work with local governments before any plan or proposal is presented to the general public. That would be inconsistent with Wyo. Stat §§ 16-4-401 through 16-4-408, allowing for participation and contribution from the public. Throughout the document, there is a push to do all these interactions before dealing with the public.	The county has a specific right to coordination and coop agency along with coordination allow them to have specific input before the plan goes out to the public. (taken citation from plan).
Bighorn National Forest	1st paragraph, 2nd sentence – “Written comments submitted by a local government not tied to a formally adopted NRMP require less	The laws and regulations governing consistency review and



	<p>consideration than those tied to an adopted NRMP.” Is this tied to a specific law, regulation or policy that speaks to “weighing” comments based on their tie to a formally adopted NRMP?</p>	<p>coordination specifically refer to reviewing state or local government "plans or laws." See for e.x. 40 C.F.R. § 1506.2 (To better integrate EIS into state or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws. Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law). Without having a written plan or law, this process is not required or undertaken, thus, comments that are not tied to a NRMP are not given the same weight because consistency review and coordination are not required when reviewing those comments.</p>
<p>Bighorn National Forest</p>	<p>2nd paragraph, last sentence – “Cooperating agency status can be reserved for more significant federal decisions likely to have a larger impact on a community and is not required for every federal action.” The CEQ regulation states that local agency of similar qualifications may become a cooperating agency by agreement with the lead agency. An agency may request that the lead agency designate it a cooperating agency (40 CFR 1501.8). Specific responsibilities are identified (via a memorandum of understanding or other agreement document) for both the lead Federal agency and the cooperating agency and can include a significant investment of time and resources. Therefore, it would be helpful to</p>	<p>One of the main purposes of this NRMP is to inform agencies when the County would likely want to participate as a cooperating agency. In turn, many of the policies adopted in this plan specifically lay out when the county would like to be included as a cooperating agency.</p>



	<p>define where the county may be interested in pursuing cooperating agency status (i.e., a table of examples in the appendices). Specifically, it would be helpful so that the BNF and District have an idea of how best to engage with the county on issues of concern.</p>	
Bighorn National Forest	<p>Priority #1 – “1. Quantitative data should be included in federal land use planning decisions that meets credible data criteria, even if the data were not produced by a federal agency.” While an EIS/ROD often involves quantitative data in order to take a “hard look” at the effects of a project, an EA/DN does not always involve as hard of a look with quantitative data and often relies on a substantial amount of qualitative data and input from specialists with field knowledge (see Administrative Procedures Act). The Forest uses quantitative data whenever it is readily available and necessary to meet requirements of project planning and forest plan monitoring requirements; however, collection of additional project-level monitoring data requires additional staffing and resources that often come with a high cost. We encourage the County to identify more specifically what specific quantitative data parameters would assist us in fostering cooperative land management and any solutions suggesting how we can cooperatively fund those monitoring efforts. The Forest currently considers monitoring data from a number of partners and cooperators (i.e., volunteers, WGFD, State Forestry, academic institutions, &amp; WYNDD). We recommend removing the term “require” and stating the following: “land use planning decisions should include consideration of the best available scientific and monitoring data...”</p>	<p>Comment received and taken into consideration. No changes were made.</p>
M. Dudley C.	<p>“In more recent times, there are many people from out-of-state ...”. I would like to see employment and tax dollar figures for the recreational industry in Johnson County. How much in tax dollars did the recreational industry contribute to the county on average each year for the last 10 years? How many county taxpayers does each industry employ?</p>	<p>Comment received and taken into consideration.</p>



Linda G.	<p>paragraph 2: Please confirm where S. Bruner found that information. I believe it may be from a book by T.A. Larsen</p> <p>paragraph 3: Please rework this paragraph using less incendiary language. We still have strong feelings in the community about this event.</p>	Language updated in document.
Bighorn National Forest	Page 8, 1st paragraph, last sentence – Is this a “policy” document issuing authority or is this a “guidance” document for cooperative land management planning?	This document provides policies for the county that provides guidance for federal agencies on natural resource decisions on public lands throughout the county.
Council for the Bighorn Range – Rob. D.	The NRMP in the county overview skips out on the contributions to the current custom, culture, and economy of Johnson County provided by the strong presence of federal land management agencies. Johnson County is host to one of the largest field offices in the Bureau of Land Management, surpassing the recently relocated headquarters to the BLM in Grand Junction, Colorado. Funding for the Soil and Conservation services are, in large part, from federal funds. The benefits paid to those staff provides an underpinning of funding for our healthcare system, in real estate, and keeping a retail presence that all call access. This funding for our public health and civic well-being not tied to the fortunes of agriculture or energy.	Information was added to this paragraph.
Council for the Bighorn Range – Rob D.	The property clause from the Constitution needs to be in the plan as it is the primary authority for all lands owned by the United States and originates with Congress. It	This is outside the scope of this document. The County recognizes the property clause in the



	<p>supersedes the national legislation discussed in this plan. Article IV, Section 3, Clause 2:  Property Clause; The Congress shall have the power to dispose of and make all needful  Rules and Regulations respecting the Territory or other Property belonging to the United  States; and nothing in this Constitution shall be so construed as to Prejudice any Claims  of the United States, or any particular State. Federal lands in Wyoming were never the  property of the state.</p>	<p>Constitution. Please see the purpose of this document on page</p>
M. Dudley C.	<p>“Coal, timber, natural gas, bentonite, and uranium mining contribute extensively to the development and the current custom, culture and economy of Johnson County ...”. I would like to see employment and tax dollar figures associated with each of these extractive and renewable industries. How much in tax dollars did each contribute to the county on average each year for the last 10 years? How many county taxpayers does each industry employ?</p>	<p>Comment received and taken into consideration.</p>
Linda G.	<p>last paragraph: A couple of those communities listed are really no longer recognized as communities</p>	<p>Information was double checked and corrected.</p>
Bighorn National Forest	<p>Page 11, very bottom. The Revised Land and Resource Management Plan was approved in 2005. Two plans, the Northern Rockies Lynx Amendment (2007) and the Greater Sage-Grouse Record of Decision: Northwest Colorado, Wyoming (2015) modify specific activities in the 2005 Revised Land and Resource Management Plan. This is true for lynx, not for sage grouse. Sage grouse ROD had Bighorn NF conspicuously cut out and that decision does not apply to Bighorn NF.</p>	<p>Information added to document.</p>
Bighorn National Forest	<p>Page 12, 2nd paragraph, 4th and 5th sentences – recommend the term “local” be replaced with “United States citizens” since, under</p>	<p>Updated language in the document for clarity.</p>



	the Organic Act of 1897, forests are managed to include benefits for both local and nonlocal citizens and communities.	
Bighorn National Forest	Page 12, 2nd paragraph, probably should add that the Big Horn Forest Reserve was one of the original Forest Reserves in the 1897 Organic Administration Act	Updated language in the document for clarity.
Bighorn National Forest	Page 12, 3rd paragraph, 2nd sentence – recommend replacing “non-timber” with “multiple uses.”	Updated language in the document for clarity.
Bighorn National Forest	Page 12, 4th paragraph, need to state which of these BNF districts overlap with the Johnson County boundary.	Updated language in document for clarity.
Bighorn National Forest	Page 12, last paragraph. The following should be added: Johnson County participated with the Bighorn National Forest during the plan revision and continues to participate twice a year on a Steering Committee. The Steering Committee has been recognized by the USFS Regional Forester in April 2019 for creating and maintaining resilient landscapes and as a model for effective collaboration.	Updated language in the document for clarity.
Linda G.	stock driveways are not a term the locals use. Stock trails or stock drives are more often used.	Updated language in the document for clarity.
Bighorn National Forest	Page 14, 6th paragraph. “Roadless” does not mean without roads on the Bighorn NF. Same comment on page 24, first sentence under the roadless section. Consider including the Forest “roadless” map in the document. Any verbiage in the NRMP regarding roadless areas should be consistent with the policies and terminology in the 2001 Roadless Area Conservation Rule: <a href="https://www.fs.fed.us/emc/nepa/roadless/2001RoadlessRuleFR.pdf">https://www.fs.fed.us/emc/nepa/roadless/2001RoadlessRuleFR.pdf</a>	Information added to document.
Bighorn National Forest	Page 14, 6th paragraph. “Improved” and “maintained” road definitions do not match USFS manual/handbook. We have five maintenance levels for our road system.	Updated language in the document for clarity.





Bighorn National Forest	Page 14, 7th paragraph. Might want to include the emergency closure order process that is delegated to Forest Supervisors and applies to road and areas.	Unable to find the exact emergency order process discussed here to incorporate into document.
Bighorn National Forest	Page 14, 5th paragraph – “Road closures in Johnson County without prior coordination with the County can cause economic harm and impact citizen and visitor enjoyment of the County’s natural resources.” Recommend changing “can” to “could” and mentioning that the USFS has provided coordination with the County on road closures in the past and would continue to do so.	Language was changed from can to could. Johnson County recognizes and wants to continue coordination with the BHNF.
M. Dudley C.	The whole page seems to be designed to give the impression that R.S. 2477 is still a valid statute. There are conflicting statements of law on this page. For example, “Even though FLPMA repealed R.S. 2477...” vs. “Congress has yet to overturn R.S. 2477 ...” vs. “The repeal of R.S. 2477...”. If FLPMA repealed R.S. 2477 then Congress did overturn R.S. 2477. 'This whole page is disingenuous and should be rewritten.	Comment received and taken into consideration.
Jacquelyn W.	See 2.2 TRANSPORTATION AND LAND ACCESS; the text used to explain the History, Custom, and Culture; and Federal Highway Administration; R.S. 2477 is an interesting build up to page 17, fourth paragraph . . . “In relation to the roads at issue here, this scope would be access to, and between private land sections.” It is not clear what the text, the roads at issue here, is referring to. Are there specific roads or areas that are problematic?	Language was updated for clarification of this paragraph.
Council for the Bighorn Range – Rob D.	The NRMP includes a lengthy section on RS 2477. This statute has generated considerable income for the Falen Law Office over the years. Still, our research has not gained much traction to overturn its repeal with the passage of the Federal Land Policy Management Act of 1976 (FLPMA). Western State-US Senators, including Senator Barrasso (R-WY), have at various times in their career to up-end or	Comment received and taken into consideration.



	<p>overturn the '76 FLPMA but is unlikely ever to happen. The State of Utah has squared up behind the defunct statute and lost time and time again. The Bighorn National Forest 2005 Revised Forest Management Plan has a travel management plan that Johnson County backed in 2005 that addresses the few RS 2477 rights of ways that existed in 1976. The Buffalo BLM Revised Management Plan in 2015 also addressed these issues.</p>	
Bighorn National Forest	<p>Page 18 Item 5. Forest Service Trails by policy are not considered roads. They have their own standards. “Public trails shall be considered “public roads and highways” is inconsistent with Forest Service policies and should be removed.</p>	<p>Language updated to address inconsistencies.</p>
Bighorn National Forest	<p>Page 18, Item 3. Include a specific list of the roads that included in this category. Need specific data.</p>	<p>Comment received and taken into consideration.</p>
Bighorn National Forest	<p>Page 18. Item 4. Include a map with the “stock trails” that are being referenced. Need specific data.</p>	<p>Comment received and taken into consideration.</p>
M. Dudley C.	<p>“There are currently non RNAs in the County, but some have been proposed by the USFS. (USFS RMP Appendix E) (USFS, n.d.-a). These proposed RNAs should be listed here and shown on Figure 3 or on a separate figure in this chapter for public information.</p>	<p>Proposed RNAs were added to text in document, map information not available.</p>
Linda G.	<p>Typo: Research Natural Areas paragraph: Recreation in RNAs “is” not encouraged. Special Rec and Extensive Rec Management Areas: such as developing trailhead areas.</p>	<p>Updated language in the document for clarity.</p>
Jacquelyn W.	<p>Regarding Research Natural Areas, page 19, “There are currently no RNAs in the County, but some have been proposed by the USFS.” Can these proposed areas be listed?</p>	<p>Proposed RNAs were added to text in document.</p>
Council for the Bighorn Range – Rob D.	<p>The Council for the Bighorn Range (CBR) supports the current ACEC, Research Natural Areas, Special Recreation, and Extensive</p>	<p>Comment received and taken into consideration.</p>



	<p>Recreation Areas and their special management in Johnson County. Multiple Use is not the same as every use, everywhere and all the time as projected in the NRMP. Neither the Bighorn NF nor the Wyoming BLM can nominate wilderness under current law outside their planning rules. That has been the intent of Congress since the 1980s. Wilderness nomination and Wild and Scenic Rivers can be nominated by citizens and local governments to our Congressional delegation.</p> <p>The Fortification Creek and Johnson County Wyoming Public Lands Initiative (WPLI) delivered to WCCA their recommendations on Fortification Creek, Gardner Mountain, and North Fork WSA's on time. The Council for the Bighorn Range supports those recommendations. The Johnson County BOCC approved the BNF 2005 Forest plan that nominated the Rock Creek area, recommended wilderness, to the Cloud Peak Wilderness. It is recommended wilderness and withdrawn from the 2001 RACR.</p>	
Jacquelyn W.	Typo: page 20, Wild and Scenic Rivers, following Table 1. The last sentence in the first paragraph is repeated as the first sentence in the next paragraph.	Updated language in the document for clarity.
Jacquelyn W.	Under Wilderness Study Areas (WSA), Fortification Creek WSA, Gardner Mountain WSA, and the North Fork of Powder River WSA (pages 21 – 22), are being released from WSA status. What is the motivation in choosing to release these areas? Perhaps a response to this question is on page 25, Priorities, item number 8. Support the development of . . . public access, . . . offers tremendous recreational opportunities . . . for tourism and recreation. Am I reading this correctly? Can the reasoning be clarified and placed with the information on pages 21 and 22?	Language updated for clarification.
M. Dudley C.	The WPLI Committee recommends that the Fortification Creek WSA, Gardner Mountain WSA, and the North Fork of Powder River WSA should be released from WSAs and no longer be eligible for	Comment received and outside scope.



	<p>Wilderness Designation.</p> <p>'Instead the Committee wants these WSAs to become Management Areas where grazing, livestock management and infrastructure would be allowed. This is nothing but a thinly veiled attempt to turn these areas into cattle and/or sheep grazing areas where ranch ATVs and/or trucks would be allowed for stock watering, livestock management and livestock infrastructure, which would all but ruin these areas from ever being considered in the future for Wilderness Study Areas to the detriment of elk, bald eagles, peregrine falcons, hawks and trout. At the very least Environmental Impact Statements should be required before any change in these areas is considered. And allowing hunting in Elk critical winter habitat is just plain stupid. Elk aren't stupid. They will die from hunting and will leave this area if they are hunted, then so much for their critical winter habitat.</p>	
Linda G.	First paragraph: No apostrophe after importance	Updated language in the document for clarity.
Bighorn National Forest	<p>Page 24 roadless section: That is actually not too bad. The only possible comment is in paragraph 3: "The second recommendation was that the boundaries of roadless areas in the BHNF should be redrawn in accordance with the boundaries set forth in the Forest Plan..." this is really minor...but... The forest plan really did not 'set forth boundaries.' There was no forest plan Decision on anything that had to do with roadless. There was a roadless inventory in the FEIS, which was done per the FSH planning handbook on wilderness – this section of the handbook required that during revision, forests do a roadless inventory, per specific definitions, and consider those areas for potential wilderness recommendations. So, we did the inventory, it was used to inform the management area designations, most notably for Rock Creek 1.2. But that particular roadless inventory was NOT a decision, carried no weight for future work under our ROD. But the roadless collaborative did use those</p>	Updated language in the document for clarity.



	boundaries as the basis for their recommendation... they used that inventory as a starting point for their inventory, and for the most part, kept those boundaries. So, not a huge deal. but... the forest plan did not 'set forth' any roadless boundaries. It was purely an inventory, with no decision related to it.	
M. Dudley C.	Nos. 12, 13, 14 and 15 are bad ideas as written.	Comment received and taken into consideration.
M. Dudley C.	3 – The WPLI Committee recommendations should be rejected and so stated in this report.	Comment received and taken into consideration.
M. Dudley C.	12 – The County should not support State efforts to petition the USFS for a Wyoming specific Roadless Rule. This would eventually lead to a different roadless rule for every state, thus greatly complicating enforcement in this area. More taxpayer money wasted. The Roadless Rule is based on environmental, wildlife and habitat concern that do not comport with artificial state boundaries.	Comment received and taken into consideration.
M. Dudley C.	13 – For the same reasons stated above in No. 12, restrictive management of roadless areas should not be discouraged and multiple uses should instead be disallowed. Also, allowing multiple uses would result in more roads being built and effectively destroying the whole purpose of such a roadless area.	Comment received and taken into consideration.
M. Dudley C.	14 – Responsible development of natural resources within roadless areas should not be encouraged for the reasons stated above.	Comment received and taken into consideration.
M. Dudley C.	15 – The County should not support construction of temporary roads necessary to service natural resource development. There is no such thing as a temporary road. Any road built will last generations. I have seen dirt and gravel roads put in in the mountains of Colorado in the 1880s for horse drawn wagons that	Comment received and taken into consideration.



	you can still drive jeeps up in 2020. The only way to do a temporary road is to have the entity building the road completely destroy the road when the use is over. In other words, tear up the road completely regrade, reseed and replant the roadway to its former landscape. Also, temporary roads may actually help increase the number of human caused wildfires.	
Bighorn National Forest	Page 25, Priority Item 3 – “Ensure that decisions regarding Wilderness Study Area designation by Congress consider the recommendations put forth by the WPLI Committee.” The Forest is committed to working cooperatively with the county in coordinating any future special designation efforts. Bighorn does not have any wilderness study areas. The Forest has definitely pushed what is allowed in RACR IRAs, per the Rule, so we could say: “we concur, per the limitations of the rule,” as you suggest...	Comment received and taken into consideration
Linda G.	First bullet: allows should be allow. Not sure you need the : of all homes phrase. Next paragraph: contributes should be contribute	Updated language in the document for clarity.
Bighorn National Forest	Page 28: Suggest adding to the fourth paragraph the following language: “After the BW-HMA was completed, the Bighorn National Forest, along with many interagency partners, began implementing the Buffalo Municipal Watershed project, which encompasses approximately 38,000 acres with mixed treatments to include timber sales, thinning, prescribed fire, and aspen regeneration.	Updated language in the document for clarity.
Mitchell B.	I agree with some of the draft plan. I would like more use of prescribed burning to lessen fuels for wildfires. I would like the draft plan to state that building homes in fire-prone areas should be at the owner’s risk and be discouraged. I feel that the costs of maintaining homes in remote, fire-prone areas should be completely the responsibility of the owner.	Policy statement was added to wildfire section to support coordination between the County and federal agencies to promote and optimize fire preparedness.





Bighorn National Forest	Pages 28-29. All paragraphs – The Forest will continue to coordinate on Fire Management with the county.	Comment received and taken into consideration, The County hopes to continue this coordination.
Linda G.	1. Should including be at the end? 6. control should be controls	Updated language in the document for clarity.
M. Dudley C.	Many of these priorities are just another thinly veiled attempt to extend cattle and/or sheep grazing where such grazing did not exist before a wildfire occurs.	Comment received and taken into consideration.
M. Dudley C.	6. Management tools should include planting native grasses, plants and trees so that there are no monocultures which would enable the spreading of plant diseases and harmful insects. Also, deer, elk, antelope and other appropriate native woodland and/or grassland species should be reintroduced as quickly as possible. Domestic cattle and sheep are not native to this area and should not be reintroduced until native species have time to repopulate the area.	Comment received and taken into consideration.
M. Dudley C.	11. Again, cattle and/or sheep grazing should not be allowed until native species have had time to repopulate the area.	Comment received and taken into consideration.
M. Dudley C.	12. For the reasons stated earlier, temporary roads should not be created for access to additional areas.	Comment received and taken into consideration.
Bighorn National Forest	Page 29: Suggest including prescribed fire as a management tool. Priority 1: change “shall” to “will continue to” coordinate with local fire agencies and ‘will continue to” adhere to all requirements.	The county appreciates that current coordination with the Forest Service. Information has been added into the background to acknowledge this coordination.
Bighorn National Forest	Page 30, Figure 5. Very difficult to determine the colors with the years of the polygons. Consider cross-hatching or other ways to tell the differences. Can a more in-depth fire history be included in	Municipal watershed boundary added to map. Table with acreages



	<p>Figure 5 to demonstrate fires that severely damaged the watershed? Can you provide a legend that differentiates between severe fires (i.e., crown fires) and ground fires. The forest plan states the following:</p> <p>Objective 1.c. Increase the amount of forests and rangelands restored to or maintained in a healthy condition with reduced risk and damage from fires, insects and diseases, and invasive species.</p> <p>Strategy 7: In accordance with the 2009 fire management policy, allow the natural role of fire to be restored in the ecosystem.</p> <p>We encourage modifying the NRMP to reflect the continued cooperation with the county to implement forest plan objectives, strategies, and desired conditions for healthy forests and rangelands.</p>	of fires was added to background of document.
M. Dudley C.	“subalpine fire” should be “subalpine fir” in fifth line down.	Updated language in the document.
Linda G.	paragraph 2 Should “Timber harvesting” be there?	Updated language in the document for clarity.
Bighorn National Forest	Page 31, first sentence of 2nd paragraph: “The Bighorn Forest Reserve was established in 1897 and has been managed by the USFS since.” The Forest Service was not established by congress until 1905. Managed by Dept. of Interior prior to that.	Updated language in the document for clarity.
Bighorn National Forest	Page 31, 2nd paragraph, second sentence does not make sense “Timber harvesting, the County historically paid for the maintenance of forest roads...”	Updated language in the document for clarity.
Bighorn National Forest	Page 31, 2nd paragraph. – “Currently, the main harvesting of forest products within the County is limited to firewood, posts and poles,	Updated language in the document for clarity.



	and Christmas trees.” Is this statement accurate when considering the commercial harvest in the Billy-Jean Timber Sale and Buffalo Municipal Watershed projects as well as the Forest’s 10-year Timber Action plan including potential projects in Johnson County? Recommend removing “limited” and including “commercial timber harvest.” Clear Creek and Crazy Woman Creek was designated by Chief of Forest Service, upon recommendation of Governor Mead, as an Insect and Disease treatment area under Section 8204 of the Agriculture Act of 2014 , and we have done at least 7 sawtimber/multi-product sales since about 2012 in that area.	
Bighorn National Forest	Page 31, 3rd paragraph – suggest updating numbers as they are 20 years old!	Updated language in the document for clarity.
Bighorn National Forest	Page 31, 4th and 5th paragraph – suggest fact checking numbers!	Data came from Wyoming State Forestry.
Council for the Bighorn Range – Rob D.	Dr. Dennis Knight authored the "Historic Variability" of the Bighorn NF for the 2005 Forest Plan. Knight's forests did not evolve with logging in his "Mountains and Plains" book. Some of the lowest productivity forests in the country are in the BNF. Logging should benefit the County is stated as an objective on Pg. 31. Currently, all of the timber material from the BNF within Johnson County is going to either Montana or South Dakota. These materials are going as raw material with no added value from any local processing. Additionally, there are only a handful of individuals who make their living from logging. Every acre harvested on the BNF costs the taxpayer at least \$1000. For the Buffalo Municipal Water Project, that number could be as high as \$3000 per acre.	Comment received and taken into consideration.
Linda G.	8. Omit “upon”	Updated language in the document for clarity.



Bighorn National Forest	Page 32, suggest adding prescribed fire to priority #3	Prescribed fire added to policy statement.
M. Dudley C.	This section completely leaves out the possibility of land exchanges of state land for Federal land. When looking at Figures 2, 3, 4 and 5 I am struck by the enormous number of non-contiguous state and Federal lands in Johnson County. I have never seen this in another county I have lived in in the U.S., and I have lived in six other states in the U.S. I can only imagine that this has something to do with extractive mining and/or land no private owner would want. One idea might be to exchange state lands in the southwest and northwest parts of the county for BLM lands in the southeast to northwest corridor of the county, thus enlarging the contiguous BLM lands and state lands in these areas.	Updated language to include State lands in land exchanges.
Linda G.	paragraph 4: The Bighorn Mountains “were” formed	Updated language in the document for clarity.
Council for the Bighorn Range – Rob D.	A recent Buffalo Bulletin article July 16, 2020, described how the energy industry is \$20 million in arrears on paying their taxes for a non-renewable resource. The industry continues to extract the non-renewable resource for which there is probably no method to recover those taxes once the resource is removed. In consultation with Johnson County's federal partners, the County cannot be in support of the reduction of royalties, local payments to schools, infrastructure, or oversight of receipts to the State of Wyoming. In early 2020, Johnson County Commissioners settled for 50 cents on the dollar for back taxes owed by an energy company.	Comment received and taken into consideration.
Council for the Bighorn Range – Rob D.	The energy industry has also received relief from monitoring and compliance with long-established environmental regulations. The lack of enforcement and monitoring is not good for the community as they do not have resources or authority to enforce basic health and safety across the industry.	Comment received and taken into consideration.



Council for the Bighorn Range – Rob D.	Johnson County should reject the entire section on pipelines and hand it back to Y2 and come up a section that reflects the genuine interests of local government and the protection of private rights of surface owners and water users.	Comment received and taken into consideration.
M. Dudley C.	“mining remains a significant portion of Johnson County’s domestic production.” I would like to see what the dollar amount of this production is as compared to Johnson County’s GDP. “significant portion” conveys no real quantifiable meaning. If it is 20 percent of GDP, then it should only carry that proportionate percentage weight in making county decisions.	Comment received and taken into consideration.
Linda G.	paragraph 1: Coal production is a large corner industry... Actually, we have mor oil and methane production (had) than coal production paragraph 2: comma after pricing	Updated language in the document for clarity.
M. Dudley C.	This section should really be entitled Mining & Inorganic Material Resources. This section lists coal, uranium, bentonite, granite, limestone, scoria, sand, gravel, marble, gneiss, gypsum, and amphibolite as minerals. Actually, the only true minerals in this list are gypsum and amphibolite. Uranium is an element. Bentonite, granite, limestone, scoria, marble, and gneiss are types of rock containing numerous different minerals. Sand and gravel also contain numerous different minerals. Coal is also a type of rock mostly composed of elements, not minerals. See references below (attached in email).	Comment received and taken into consideration.
Mitchell B.	I feel that renewable energy operations should be given equal or higher priority over extractive energy operations. I feel that the permitting process should be left to the land management agencies and all decisions should be guided by scientific examination utilizing the professional staff employed to make said decisions. Water and	Comment received and taken into consideration.



	air quality are paramount. Flaring (floring?) should be disallowed. I agree with the plan on climate change analysis. I support proper scientific findings on climate change and greenhouse gasses and feel we need to both listen and act to improve air quality.	
Linda G.	paragraph 6: typo been instead of bene	Updated language in the document for clarity.
M. Dudley C.	<p>“development of hydrocarbon reserves” and “development of these resources.” Hydrocarbon reserves should not be further developed, especially coal. Coal was a pre-twentieth century mainstay for energy production and contains the least energy per pound of any of the fossil fuels. In order of energy retrievable per pound wood has the lowest energy retrievable, then coal, then oil, and then natural gas. Coal can simply not compete with oil and natural gas unless its production cost is artificially made lower thru government subsidies (i.e. higher taxpayer costs and less state revenues). Furthermore, renewable energy resources (wind, solar and hydropower) now have lower energy production costs than oil and natural gas. The only reason oil and natural gas are competitive in cost production with renewable energy costs is that their production costs are kept low thru government subsidies. And, finally, nuclear energy production is far more costly than any of the fossil fuel costs and has the highest potential for safety disasters. Just look at Three Mile Island and Chernobyl. Whether Johnson County’s government likes it or not, the future of energy production is in renewable energy and fossil fuel. And if Johnson County doesn’t get on board with renewable energy production and infrastructure, it will be left in the dust by other counties, states and governments never mind public and private companies. This will all but guarantee that Johnson County’s economic development will be in peril in the near future, if not already.</p>	Comment received and taken into consideration.





M. Dudley C.	<p>I disagree with both items 1 and 2 and would reword them as follows.</p> <ol style="list-style-type: none"> <li>1. Not support the streamlining of the permitting process for new activities within Johnson County to allow for more exploratory drilling and mining and improved access to reserves.</li> <li>2. Not support the consideration of all lands within the political jurisdiction of Johnson County be opened to mineral exploration and extraction unless specifically precluded by federal, state or local law.</li> </ol>	Comment received and taken into consideration.
M. Dudley C.	<p>8. I disagree with including the General Mining Law of 1872. This law needs to be repealed, or at the very least this law needs to be amended to allow mining leases to be sold at current fair market value. This is another government subsidy for mining companies that costs the U.S. taxpayers millions of dollars each year in lost revenue and hides the true costs of mining in the U.S.</p>	Comment received and is outside the scope of this document.
Bighorn National Forest	<p>Page 40, item #7 – “all plans must demonstrate an understanding of the county’s plans and policies and resolve any conflicts with the County’s plans.” Is this statement going to trigger a forest plan revision or amendment to “resolve” conflicts with the county plan? What is the citation for this authority? Forest plans are required to follow the 2012 Planning Rule which may or may not necessarily be consistent with every objective priority listed in this NRMP. We recommend that this paragraph be restated as follows: “Federal land management agencies should make cooperative efforts to work toward consistency with the County’s plans whenever it is appropriate and feasible to do so given current requirements, policies and resource conditions.”</p>	This will not trigger a new Forest Plan; everything moving forward shall consider this plan.
Linda G.	<p>#14 insert County for Johnson County Weed and Pest  #16 omit “of”  #28 Please define Superfund sites</p>	Suggested changes made to priority statements.



Bighorn National Forest	Page 41, item #13 – “Encourage mining reclamation to use best management practices (BMPs) instead of requiring restoration to as near the same condition as original. Consider nonnative seeding where beneficial.” The Forest recommends including the following statement: “mining reclamation and restoration in special designation areas would be considered on a case by case basis.”	Language added to priority statement.
M. Dudley C.	<p>Items 19 thru 23 should be dropped from this list of priorities or changed as follows:</p> <p>Item 19. The use and transmission of coal as an energy source should be phased out and people employed in that industry should be retrained for employment in the renewable energy industry.</p> <p>Item 20. Discourage implementation ...</p> <p>Item 21. Do not support ...</p> <p>Item 22. Do not support ...</p> <p>Item 23. Do not support ...</p> <p>Item 28. The county does support Superfund sites. Should there be a massive fossil fuel cleanup needed a Superfund site would provide much needed Federal monies to help clean up such a site. For example, the mining water spill site near the Animus River in Colorado became a Superfund site.</p>	Comment received and taken into consideration.
Linda G.	Second sentence: Change well to wells	Updated language in the document for clarity.
M. Dudley C.	All mention and support for enhanced or tertiary oil and gas recovery techniques, such as thermal recovery, hydraulic fracturing, gas injection, chemical flooding or horizontal development should be deleted from this subsection. These methods are inherently dangerous to underground water aquifers that supply water to ranchlands, farmlands, subdivisions, and municipalities. Many of the fracking fluids and chemicals used are carcinogenic and poisonous and can be carried by these aquifers for dozens of miles.	Comment received and taken into consideration.



	Such fracking can also destabilize underground rock formations and result in earthquakes which can also disrupt underground aquifers.	
M. Dudley C.	1. Drop item 1 or reword it as follows: Discourage support for... 4. Drop item 4 or reword it as follows: Discourage use of secondary and enhanced (tertiary) recovery methods where possible ... 7 and 8. Drop both items or rewrite them as follows: Discourage the .... 10. Modify this item as follows: Discourage the disposal of oil and gas produced water into surface waters or underground waters of Johnson County. Add an item 12: Encourage Wyoming's state government to discontinue all subsidies to oil, gas and coal producers.	Comment received and taken into consideration.
M. Dudley C.	Last sentence should read: Wyoming does not have but should have a renewable portfolio standard goal to generate a certain amount of the state's electricity from renewable energy.	Comment received and language updated for clarity.
M. Dudley C.	First sentence should read: Currently there are no wind energy developments within Johnson County but there should be, because	Comment received and language updated for clarity.
M. Dudley C.	Third sentence should read: There should be an opportunity in the near future for solar energy to be implemented on all public lands.	Comment received and was taken into consideration.
M. Dudley C.	Fourth sentence should read: New development of renewable energy in the County should be encouraged.	Comment received and was taken into consideration.
M. Dudley C.	Second sentence should be modified as follows: It is important that these avenues for transmission are allowed in Johnson County.	Comment acknowledged but language was left as currently written.
M. Dudley C.	Third sentence should be modified as follows: Pipelines offer a relatively safe and effective means for delivering large amounts of hydrocarbons across extended distances with some risk for spills.	Updated language in the document.



	(I lived in a community in Illinois where an oil pipeline ruptured, and the cleanup cost was in the tens of millions of dollars and ended up being paid for by taxpayers because the pipeline company had gone out of business years before.)	
Linda G.	#6. Please add also to avoid eyesores or diminished property value or tourism revenue ( or similar wording)	Updated language in document.
Linda G.	Pipelines paragraph 3 add “or” between oil and natural gas Paragraph 4 add “the” between that and field Add “the” between required and gas	Updated language in the document for clarity.
M. Dudley C.	2. Encourage the development of renewable energy ... 3. Encourage renewable energy as a means to further develop energy infrastructure and energy independence. 4. Reclamation should be considered prior to project approval. 5. Renewable energy should be given equal priority to other multiple uses in the County.	Priority statements 2, 3, and 4 were updated with this language.
Jacquelyn W.	In Renewable energy (page 45), under Priorities, the stated Objective is encouraging. Under Priorities, item numbers 1 – 4 are encouraging. Yet, in item number 5, Renewable energy should be a lower priority . . . and number 6, what are potential nuisances? Can this be clarified?	Examples of nuisances were added.
M. Dudley C.	Third sentence – Should be reworded as follows: The County should no longer be a proponent of pipeline development.	Comment received and taken into consideration.
Linda G.	Resource Management Objective Bullet: Change take to takes	Updated language in the document for clarity.
Bighorn National Forest	Page 47, Priority #4 – “Encourage pipeline development to be in the most direct path regardless of land ownership, with a preference to placement on federal lands.” Recommend adding the following	Updated language in the document for clarity.



	text: "...except where special designation prohibits or limits surface disturbance." This action would require NEPA	
Bighorn National Forest	Page 47 Air Quality – Change “Wildfires burning on federal lands can create air quality issues...” to “Wildfires in the summer and fall can create air quality issues...” As fires burn on all land jurisdictions, not just federal and most of the smoke we see here is not from fires in the local area.	Updated language in the document for clarity.
M. Dudley C.	Rewrite numbers 1 and 4 as follows: 1. Discourage the development of future pipelines in Johnson County. Support improvement of existing pipeline infrastructure in Johnson County when it will not affect pre-existing uses or rights. 4. Discourage pipeline development from being in the most direct path regardless of land ownership. It would be preferable to placement pipelines on state and federal lands.	Comment received and taken into consideration.
Linda G.	Omit bullet #4 Agricultural practices In the next set of bullets omit #4 Emissions from farming and agricultural operations	Language omitted from document.
Linda G.	Next paragraph change lay to lays Resource Management Objective: change consider to considers	Updated language in the document for clarity.
Bighorn National Forest	Page 48, 3rd paragraph, 2nd sentence, “The Bighorn National Forest sets the standard to meet state and federal air quality standards...”	Unclear on suggested change to document.
M. Dudley C.	Rewrite sentence as follows, because as written it is somewhat awkward: Management of federal lands should consider clean air practices and limit air pollution within the County even if it means expansion of rules and policies, as long as such expansion does not unreasonably slow economic development.	Comment received and taken into consideration.



M. Dudley C.	6. Should be rewritten as follows, because the sentence as written is awkward. Ensure that there is a balance in which air quality is not compromised at the expense of economic development activities (i.e. mining, oil and gas development). Such balance should take into account potential harm that could be done to businesses within the County.	Updated language in the document for clarity.
Linda G.	Second bullet : insert 'a' between of and project	Updated language in the document for clarity.
Bighorn National Forest	Page 49, Priority #3 – “Encourage federal agencies to implement BMPs for forest management to decrease the number of summer wildfires.” Prescribed fire is a recognized BMP for reducing fuel loading and decreasing the severity of wildfires. Same holds true for Priority #5.	Prescribed fire is an accepted BMP by the County in the right circumstance.
Linda G.	Second paragraph: Omit scheduled harvesting and grazing	Language omitted from document.
Bighorn National Forest	Page 50, RMO and priority #2... “the region shall be identified through consultation and coordination with Johnson County.” Climate change regions are identified by other agencies such as NOAA. Recommend that the county share this input with NOAA as the Forest Service does not identify climate change regions and would not be changing climate change region boundaries for environmental effects analysis. We report the data that we are provided by other agencies.	Comment received and taken into consideration and noted by the County for communication with NOAA.
M. Dudley C.	I disagree with this sentence as written, because climate change is not a regional problem it is a global problem and all the Earth’s ecosystems (air, water and land) are interdependent and will all be affected by climate change sooner or later. And the sooner we tackle this problem at all levels, the sooner we can, hopefully, bring it under control before any irreversible changes take place. Beyond a certain tipping point, all life on Earth will be endangered and at risk of extinction. If we blow this challenge, the human race and most of the more complex life on Earth will expire. And perhaps a few million years from now, another species better suited to survive long term on Earth will arise. I would rewrite this sentence as follows:	Comment received and taken into consideration.





	Climate change analysis needs to be conducted on global, regional and local levels all at the same time. Long and short-term effects of climate change need to be addressed at each of these levels.	
M. Dudley C.	2. Should be rewritten as follows: Support climate change analysis conducted on global, regional and local levels. The region should be identified through consultation and coordination with Johnson County and other appropriate counties.	Comment received and taken into consideration.
M. Dudley C.	3. Second sentence should be rewritten as follows: If it is determined that the decision will have significant negative impact on the local economy, the County and the Federal Government should negotiate a modification of the decision that will minimize its negative impact on the local economy.	Updated language in policy statement.
Linda G.	Second paragraph: Omit Soils mapped for Johnson Count. below.	Updated language in the document for clarity.
Bighorn National Forest	Page 51, Priority #5. Could you please provide scientific citations to demonstrate how livestock grazing is “a key to site reclamation for soil health and biodiversity?”	Updated language in document.
M. Dudley C.	Paragraph 4 states that there are seven aquifer systems that feed Johnson County. However, nowhere in the chapter are these aquifers detailed. There should be a map showing where each aquifer is located, the range of depth of each aquifer, and the flow rate of each aquifer. Water quantity and quality analysis reports should be summarized and referenced. If any aquifer is polluted, then that should be so stated, and a list of pollutants should be provided for each aquifer.	Updated language in document.



Bighorn National Forest	Page 53, 1st Paragraph, suggest citing the Buffalo Municipal Watershed project as an example of a multi-pronged, multi-partner effort to protect water resources.	Information added to paragraph on Buffalo Municipal Watershed project.
M. Dudley C.	The fourth paragraph states: "Much of the irrigation infrastructure is aging, poorly maintained, and inefficient which significantly limits the availability of surface water resources in Johnson County ..." If this is correct, then the Resource Management Objective should be rewritten as follows: "Irrigation and water systems shall be managed, maintained and improved to ensure current and future access to irrigation water and to promote the health, longevity, and sustainability of the County's water."	Updates were made to the document for clarity.
Linda G.	Second paragraph: The second and third sentences are fragments. Please fix Omit 6th paragraph: Much of the irrigation infrastructure is aging, poorly maintained, and inefficient which ...	Language updated in document.
Mitchell B.	I agree with much of this section. I disagree with encouraging water storage infrastructure. I feel it should be only used as a last resort. I feel that water is above all the most important resource in this arid County of Wyoming. We should strive to protect the water quality and to use only the quantity needed. I believe in the importance of wetlands and feel they should be encouraged and rewarded. Recharging lands and aquifers of great importance.	Comment received and taken into consideration.
Linda G.	#6 unclear what you mean by effects of infrastructure Last paragraph: omit the dash after 500 Omit " Several dams associated with these reservoirs are classified as dams with high hazard potential which are those where failure or mis-operation of the dam will likely cause loss of human life. This tends to give the impression that the dams are not inspected regularly and have state approval.	High Hazard doesn't mean the dam is in poor condition, just that there is high risk to life if the dam were to fail for any reason.



M. Dudley C.	Rewrite 7 and 10 as follows: 7. Encourage negotiation of surface use agreements on split estates and discourage siting of oil and gas facilities on or off of irrigated lands. (Johnson County should not be encouraging or supporting any new oil or gas drilling or facilities within the county.) 10. The County encourages negotiations on the regulation of instream flows for renewal of historical irrigation ditch rights-of-way.	Comment received and taken into consideration.
M. Dudley C.	Priorities: 4. Support the proper management, maintenance and improvements of all dams, especially high hazard dams. (All dams need to be included to help prevent any dam from becoming a high hazard dam.)	Comment received and taken into consideration.
Linda G.	The graph has the capacity for Lake DeSmet incorrect. It should be 234,987 A.F. Also listing Lake DeSmet, Tie Hack and Dull Knife as high hazard is troubling. Are you meaning that in the case of a natural disaster(earthquake) the dams could fail and there would be loss of life? Those dams are regularly inspected and barring natural disaster or sabotage, they are in good shape.	Information corrected and language was updated for clarification.
Bighorn National Forest	Page 57, Priority #1. Could you please elaborate or provide examples of "other water-related concerns?" The previously suggested appendix of examples would assist the Forest in coordination of water projects.	Comment received and taken into consideration.
M. Dudley C.	Add Priority 7. Support the development of small hydroelectric generators in ditch pipes and water pipes on farms and ranches to supply electricity to the farms and ranches on which they are located. (These small hydroelectric units have been used successfully in western Colorado and the Federal Government will provide grants and loans to purchase and install these units.)	Priority statement was added to support small hydroelectric generators on public lands.
M. Dudley C.	Second Paragraph: "(1) obtain a permit; (2) demonstrate .... " (2) was omitted	Updates were made to the document for clarity.



M. Dudley C.	<p>Fourth Paragraph: “These groundwater resources are non-renewable and are lost for many future generations ...” This is not a true statement and should be reworded. Groundwater is renewable by irrigation waters; rainwater; snow melt; and lake, river and creek seepage.</p> <p>These groundwater resources are renewable but can take many decades to be renewed and thus can be lost to future generations as a result of non-regulated disposal during energy development.</p>	Updates were made to document for clarity.
Linda G.	<p>Second paragraph: Should #3 be #2?</p> <p>4th paragraph: Please don’t use “significantly” or “non-renewable”.</p>	Updated language in the document for clarity.
M. Dudley C.	<p>Third Paragraph: “Thus, water rights are widely accepted as property of the holder and can be protected under the 5th and 14th Amendments of the United States Constitution when taken through regulation.” (Note: This may be true against another private property holder but is not true against a state. A state must deliberately waive or cede its right(s) before a private property holder can gain that right(s).</p>	Comment received and taken into consideration.



Bighorn National Forest	Page 58. Water Rights Resource Management Objective and Priorities #2 and #3– 2. “Placing water rights in the name of any state or federal agency when the water right is applied for and proved upon by a private individual or corporation, or as the condition of any permit, is not supported.” 3. “Support recognition of water rights as a private property right that may be owned separately from land.” The Resource Management Objective statement is in direct conflict with Priorities 2 and 3 in that these priorities are contrary to Wyoming Water Law. Following these priorities as written could end up with water developments not being available to subsequent permittees on a Federal permit. Legislature considered this issue a few years ago, and WSGA would not support it.	Comment received and the steering committee does not believe this is counter to the objectives or to state law.
M. Dudley C.	Reword number 8. In-stream flow requirements or minimums are extremely important for the health of aquatic life in the stream and for the health of wildlife using the stream. 8. “It is the position of the County that in-stream flow requirements are exactions.” “It is the position of the County that in stream flow requirements are not exactions but should be negotiated for right-of-way and ditch permits.”	Comment received and taken into consideration.
M. Dudley C.	Impaired Waters Sentence two starts: “Table 2 ...” this should be “Table 3 ...”	Updates were made to the document for clarity.
Linda G.	First paragraph Last two sentences seem to contradict each other. One says high risk the next says low to moderate risk paragraph 5. The three forks meet on the foothills, should read “in” the foothills	Updated language in the document.
Bighorn National Forest	Page 64, 5th paragraph. There are many streams in Johnson County not listed that are very important to list.	A link was added to show the streams in the county.
Linda G.	Paragraph 5 last sentence streams should be stream’s	Updated language in the document for clarity.
Bighorn National Forest	Page 66. Consider adding riparian input from Bighorn NF LRMP (Soil, Water, Riparian, and Wetland 1-26 and Biological Diversity Guideline #9 on Page 1-29). There are standards and guidelines related to water influence zones.	Updated language in the document for clarity.



Bighorn National Forest	Page 66, Priority #2 - "Support the use of responsible grazing and vegetation management as a tool to maintain wetlands/riparian areas." Can you please scientific citations for how grazing as a method will maintain wetland and riparian area conditions?	Citations were added to background information.
M. Dudley C.	No. 2 should be reworded. Grazing should not be allowed in wetlands/riparian areas. Grazing will over time destroy native wetlands and riparian areas making them unusable by native plants, native aquatic life, and native wildlife to live and thrive. "Support the use of responsible native vegetation and stream management as tools to maintain wetlands/riparian areas."	Information was added to background section to describe when it is appropriate for livestock grazing to occur in wetlands and riparian areas.
Linda G.	Second paragraph, last sentence: Please change in the county to in Johnson County	Updated language in the document for clarity.
M. Dudley C.	No. 6 should be reworded. Wetlands are extremely important areas for native plants, native aquatic life and native wildlife to live and thrive.	Comment received and taken into consideration.
M. Dudley C.	6. "The County does support CWA jurisdictional wetland designations for wetlands not located immediately adjacent to a navigable water in the County."	Comment received and taken into consideration.
M. Dudley C.	Tables 4 – 11 mentioned on pages 68, 74, and 75 should show the page of the report that each table occurs on. This will make it easier for people to find these tables.	Page numbers were inserted.
Council for the Bighorn Range - Rob D.	Johnson County has a diversity of habitat for wildlife that extends far beyond the listed species for home and industrial recreation. Reading through the NRMP, though, any wildlife unsuitable for consumption or trophy impedes production, sustained yield, or custom and culture.	Comment received and taken into consideration.
M. Dudley C.	last sentence – Critical habitat can only be areas that qualify as "habitat." Be was missing.	Updated language in the document for clarity.
Linda G.	Last paragraph, last sentence: add "be" between only and areas	Updated language in the document for clarity.
Linda G.	First paragraph, first sentence: Please omit The and capitalize the N on neither	Updated language in the document for clarity.





M. Dudley C.	5. Do not support the introduction or reintroduction of listed species into Johnson County unless the County and the state and/or Federal Government can agree to terms and conditions or standard operating criteria that minimize disrupting current land uses. As written No. 5 does not give the County any negotiating room with the state and/or Federal Government. A court could even view such a hardline position as being arbitrary and capricious and simply ignore it altogether. In fact, many sections of this document as drafted could be considered either overly vague or arbitrary and capricious and courts of law might simply ignore this document when considering how to decide on a case. Being dogmatic is not a good thing when drafting a public document.	Comment received and already addressed in document. Several policies where county requests coordination.
Mitchell B.	There is much I agree with here, except for: the plans lack of support for "special status" protections for species not formally listed under the ESA. The agencies and experts that are assigned to protect species that are declared T&E or of "special status" should be allowed to do their job. Needed measures to ensure that an ecosystem and creatures within are of healthy populations is important.	CCAAs and statewide adoptions are tools to use for this. Agency specific special status species is not supported as it takes away a lot of choice from the state as the lead wildlife regulatory agency and takes away coordination from county and individual choice from landowners to use CCAAs.
M. Dudley C.	This objective should be rewritten as follows: Threatened and endangered species are managed using credible data and should be given preference over multiple use mandates in coordination with the County and other stakeholders. Other uses may in fact be causing the endangerment or threatening of species (e.g. hunting, oil and gas development, subdivision development, etc.) Therefore, making a blanket statement such as this makes no sense.	Comment received and taken into consideration.



M. Dudley C.	<p>A number of these priorities should be rewritten as follows:</p> <ol style="list-style-type: none"> <li>1. Consider delisting of any species with insufficient, unsupported, or questionable data not meeting the minimum criteria for its listing or protection level. What is insufficient, unsupported or questionable data is a factual determination which would ultimately be made in a court of law.</li> <li>2. Any area may be excluded from critical habitat if it is determined that the benefits of such exclusion outweighs the benefits of designating the area as critical habitat, unless such exclusion would result in the extinction of the species. As written No. 2 does not comport with the federal law cited on page 70.</li> <li>3. Upon conducting a robust and full local economic analysis of all proposed critical habitat designations in the County, if the analysis indicates that the economic harm to the County and its citizens outweigh the benefit of the critical habitat to the listed species, the FWS should consider excluding such habitat from critical habitat designations. Again, as written No. 3 does not comport with the federal law cited on page 70.</li> </ol>	Comment received and taken into consideration.
M. Dudley C.	<ol style="list-style-type: none"> <li>10. If the first sentence is not supported by specific state and/or federal law, why even say it?</li> <li>12. Support control of predators, negatively impacting special status, candidate, or listed species, along with possible control of other multiple uses that may be seen as conflicting. Predators rarely ever by themselves cause any long-term fatal harm to a species. If there are too many predators then the prey species' numbers dwindle to the point that the predators starve, and their numbers are reduced. And then the prey species' numbers increase. This feed-back loop has been going on for millions of years without humans intervening. It is now much more likely that human activity is responsible for the decline of species because there is no predator-prey feedback loop. So, humans can end up directly or indirectly killing an entire species without humans being hardly affected at all.</li> </ol>	10. This policy is supported by federal law. 12. Comment received and taken into consideration; no changes made.



M. Dudley C.	It would be helpful to have a map showing the location of the two WHMAs in Johnson County.	Link was added to WGFD's online map of WHMAs.
Linda G.	State of Wyoming Migration Corridor Protections, second paragraph: Please double check this in relation to the Governor's fencing projects in the works now.	Checked information and appears to be in relation.
Bighorn National Forest	Page 74, last paragraph; page 75, 1st paragraph. Need to update MIS to Focal Species reflected in our 2016 Administrative Change #4 to the LRMP. Note that the current BNF LRMP still contains "MIS" in chapters with the exception of Chapter 4 Monitoring and Evaluation which uses the term "focal species." "MIS" would be removed throughout the entire LRMP in the next Forest Plan revision and replaced with "focal species" in order to conform to the 2012 Planning Rule.	Language updated from MIS to focal species.
M. Dudley C.	Chronic wasting disease is not limited to mule deer. In fact, chronic wasting disease could have originally been the result of early ranchers mismanaging their domestic cattle herds, which then resulted in the disease spreading to wildlife herds.	Comment acknowledged. CWD research information included in document.
Linda G.	Bighorn National Forest: Please put Table 8 and Table 9 in the appendices after the beginning of the sentence	Updated language in the document for clarity.
M. Dudley C.	The following items should be rewritten or eliminated as follows: 4. The management of non-ESA listed species (e.g., species of concern, species of special concern, or any other non-ESA designation) as though they are protected by the rules of the Endangered Species Act is supported, because there is credible scientific evidence to document a threat to the continued viability of a species population. See page 74. Not supporting such management is both careless and reckless, in light of credible scientific evidence that the continued viability of a species is threatened. Unless of course, you are one of those people who don't believe in science and scientific experts. A court of law would very likely find the item as written to be prejudicial.	Comment received and taken into consideration.



M. Dudley C.	6. Management plans shall be generated to protect the overall health of all natural resources. Use of multiple use principles and management of one individual species may be considered when creating management plans. As noted in 4 above, not supporting such single species management is both careless and reckless when it is known that the continued viability of a species is threatened. 9. This item should be eliminated altogether, see items 4 and 6 above.	Comment received and taken into consideration.
Bighorn National Forest	Page 76, Priority #17 is contradictory to #18 and #20	Language was updated to clarify information.
M. Dudley C.	19. Support research and management of mule deer, white-tailed deer, elk and cattle for reduction of chronic wasting disease. Support research and management of vehicle collisions with wildlife and wildlife migration corridors.	Priority statement added.
M. Dudley C.	11. Create management objectives based on the carrying capacity of the habitat, which could include multiple use mandates (livestock, grazing, mineral extraction, etc.) on federal and state lands. Necessitating consideration of all multiple uses does not give the County any room to negotiate with the Federal Government. Again, being dogmatic is not the way to write a public document. It undermines respect for such a document. There is no reason to exclude state lands from this management.	This document is intended for federal resources through NEPA it is unenforceable on state lands unless there is a federal nexus state lands are avoided to prevent confusion.
Linda G.	Under Resource Assessment: The font changed in the whole paragraph. Please match font to rest of document	Updated language in the document for clarity.



M. Dudley C.	This last sentence of the first paragraph refers to Figure 15 and Figure 16. This reference should actually be to Figure 18 and Figure 19. Also, these two Figures are exactly the same, so you are missing one of the Figures. Furthermore, sentence seven states: “Within the Clear Creek Watershed there are Brown Trout, Rainbow Trout, Cutthroat Trout and Mountain Suckers, ...” These fish are not marked with an “X” in the Clear Creek column of either Figure. Why not? Sentence seven also state: “..., and the Crazy Woman Creek Watershed has Brook Trout, Brown Trout, and Rainbow Trout.” These fish are not marked with an “X” in the Crazy Woman column of either Figure. Why not? “The major challenges and limiting factors to supporting sport fisheries within Johnson County are barriers to natural fish migration and inefficient irrigation infrastructure which leads to water shortages during critical periods.” This is actually a reason for having in-stream flow requirements or minimums and dam water release requirements or minimums.	This information is the most available from the cited source and therefore was left as is in the document.
Bighorn National Forest	Page 85 is duplicated	Updated map formatting for the section.
M. Dudley C.	1. The County opposes any proposed creation, enlargement, or expansion of the current HMA boundaries and the designation of any additional new HMAs or HAs. On pages 87 and 88 it is stated that there are no HMAs or HAs in the County. If that is correct, then this statement sounds like the County is opposing any new HMAs or HAs and opposing any enlargement or expansion of HMAs or HAs anywhere in Wyoming or the U.S. This is like telling other counties in Wyoming, other states and the Federal Government what they should or shouldn’t do. This is really overstepping one’s boundaries. Turf warfare anyone?	Updated language in the document for clarity.
M. Dudley C.	Bullet point one should be eliminated because bullet point two is sufficient. Bullet point one is arbitrary and capricious, it gives the County no room to negotiate or maneuver. Again, being dogmatic in a public document is not a smart move if you want the public, other governments and the courts to take this document seriously.	Comment received and taken into consideration.



Linda G.	First paragraph: insert “and” between skiing and off-highway Resource Assessment and Legal Framework, first paragraph: period after opportunities. Please omit “which is essential in the lives of County residents”. Second paragraph, 3rd sentence: insert from instead of in	Updated language in the document for clarity.
Linda G.	Resource Management Objective, first bullet: benefit to benefits	Updated language in the document for clarity.
Bighorn National Forest	Page 90, 1st paragraph, campgrounds should read Hunter, Circle Park, Doyle, Lost Cabin, Middle Fork, South Fork and Tie Hack.	Updated language in the document for clarity.
Mitchell B.	I agree with the plan except for the recommendation of what appears to be "pitting" recreation use against non-sustainable industries such as mineral extraction. All of the uses listed can be over-done and result in negative effects to the land. Proper managers with pertinent information can make good choices for land use and should be allowed to and supported.	Comment received and taken into consideration; no changes made.
Council for the Bighorn Range - Rob D.	Undercutting federal law enforcement on public lands in rural counties will not aide the general welfare of the public or the resources.	Comment received; however, the plan does not undercut federal law enforcement but rather just supports the need for coordination between the local law enforcement and federal enforcement to ensure safety of all citizens.
Council for the Bighorn Range - Rob D.	Unmanaged recreation is the greatest threat to all the resources on our public lands.	Comment received and taken into consideration.
Council for the Bighorn Range - Rob D.	Johnson County should continue to work with the other counties across the range and basin, both with FS and BLM, to allow reasonable fees to control dispersed recreation and recoup specific costs for SAR and emergency medical services.	Outside scope of this document.
Council for the Bighorn Range - Rob D.	Economic dislocation from climate change and civil unrest is going to put additional strains on our public lands. The Counties need to work with federal	Already addressed in plan in policy statement 6.1 Policies 1, 3, &5 and in 6.1 Policies 1 &2.





	law enforcement and recreation managers to mitigate these new issues.	
Bighorn National Forest	Page 90, Priority 6: This section on recreation and tourism should mention Johnson County’s involvement in the dispersed recreation task force, and that the Forest is working jointly with the task force members to come up with viable solutions.	Information was added on the County's involvement in the dispersed recreation task force.
Linda G.	Resource Management Objective or Priorities: Please add continue to work with USDA for cooperative law enforcement on National Forest properties per the Cooperative Law Enforcement Agreement signed by the commissioners in May of 2019.	Updated language in the document for clarity.
Bighorn National Forest	Page 91, Priority #8: what do they mean by coordinate with the county to “ensure resource protection?”	Implying that recreation uses should be managed in a way that protects the natural resources within the county.
Bighorn National Forest	Page 91, Priority 7. There are many special use permits issued annually that include large weddings, filming permits, etc. Do you really want to be a cooperating agency for each one of these permitted activities that have categorical exclusions? Maybe specify the ones that are most concerning such as new assigned sites for outfitter and guides or whatever are the concerning ones...	Priority statement language updated.
Bighorn National Forest	Page 91, 3rd paragraph. Recommend using language from existing MOUs between the county sheriff and Bighorn NF law enforcement at least for Bighorn NF.	Track down MOUs; acknowledge that there is an MOU. Ask Comm. Novotny.
M. Dudley C.	Fourth paragraph, last sentence; “Currently Johnson County does not have a Historic. Preservation Commission to maintain the status of a certified local government.” I would like to see Johnson County have a Historic Preservation Commission.	Not within the scope of this document.
Linda G.	Are Buffalo Main Street Historic District and Main Street Historic District the same thing?	Yes these are the same thing. The SHPO office labels it as the Buffalo Main Street Historic District.
Linda G.	Priorities #2: Please add “the” between for and County	Updated language in the document for clarity.



M. Dudley C.	4. Should be rewritten as follows: Support private property rights as an important consideration for cultural, historical, geological, and paleontological resources thought to be on private lands. Compensation should be paid for land disturbed by cultural, historical, geological, and paleontological digging by governmental entities or non-governmental entities. As written, item 4 is too restrictive and gives too much weight to private property rights. There should be a balancing of private property rights and the public’s right to information on important cultural, historical, geological and paleontological sites.	Comment received and taken into consideration; no changes made.
Linda G.	First paragraph, 6th sentence: change lease to leases Last paragraph, 3rd sentence: remove apostrophe on travelers	Updated language in the document for clarity.
Bighorn National Forest	Page 96, 1st paragraph, last sentence – Livestock grazing statement regarding the “single largest user of public land”. Please add a citation to support this. BLM vs USFS differences.	Updated language in the document for clarity.
Bighorn National Forest	Page 97, Priorities 1 and 2 are unclear. What newly permitted activities? And what do they mean by “impacts to circulating dollars” when access and use of federal land is proposed?	Updated language in #2.
Linda G.	Second paragraph: Please add rankings for cattle too.	Updated language in the document for clarity.
Linda G.	History, Custom, and Culture: Add Era after Pleistocene.	Updated language in the document for clarity.
Mitchell B.	In this section I object to the fact that livestock grazing is held above other interests. Though I firmly believe that large herbivores such as cattle, sheep, horses, and wildlife serve an important part of range ecosystems- there needs to be a balance. The agencies that manage the lands have dedicated, educated professionals that can make the best decisions on the needs of both the ecosystem and the economic interests of grazing permittees. The extremely low rates that are charged for grazing public lands come with management plans that protect the flora and fauna of these lands. It is a choice to graze these lands. Acceptance of the regulations for grazing public lands must be considered before signing a lease.	Comment received and taken into consideration.



	Livestock owners must be aware of "multiple-use" and know that land management needs can change with time.	
Council for the Bighorn Range – Rob D.	If Johnson County wants to desire to inhibit the conversion of arable, productive agricultural lands, then an actual County Land plan with zoning is necessary. It does not hang on the federal land managers.	Specific laws that protect agriculture as a multiple use. Plan does not impact private land.
Council for the Bighorn Range - Rob D.	It has been CBR's experience when attending consultive groups like the BNF Forest Plan Implementation Committee public meetings, one of the first questions from the elected members from the counties to the Forest Service staff present is the condition of their permits-allotments or family recreation concerns. Second is how to boost the AUMS across the Forest to full stocking though only 60% of the Forest is to standard.	Comment received and taken into consideration.
Bighorn National Forest	Page 99 Priorities 5, 7 & 8. For Priority #5, there is a process, that is well defined, under Federal Claims Act for compensable damages. #7 is related to BLM management. The Forest does not have an "application process." On the Forest, we have to conduct NEPA, so six months may not be feasible. #8 is a vague statement. Could you provide more detail, definition, and implication here?	Language updated in all three policy statements for better clarification.
Bighorn National Forest	Page 100, last paragraph. Delete "special use permit" and change to "term grazing permit"	Updated language in the document for clarity.
Bighorn National Forest	Page 101, 1st paragraph, 2nd sentence. USFS Range Improvement Paragraph. Remove "with credits for improvement...grazing fee" portion of the sentence. The permittee assumes responsibility for	Updated language in the document for clarity.



	the improvement (maintenance) but the USFS holds title to the improvement.	
Bighorn National Forest	Page 101. 2nd paragraph, 1st sentence. Add to the sentence related to grazing leases “and term grazing permits.” The USFS does not have grazing leases.	Updated language in the document for clarity.
M. Dudley C.	<p>7. “Allotment retirements are not supported.” No. 7 should be rewritten as follows: Allotment suspension or retirements should be supported when there is significant overgrazing, and the allotment needs time to recuperate.</p> <p>8. “Existing grass banks shall be phased out and retired grazing allotments shall be returned to part of the actively managed grazing system.” Grass banks should be defined because the general public may not know what these are. “Grass banking is a relatively new practice where property owners lease land to ranchers at a discount in exchange for ranchers carrying out conservation-related projects on their pastures. The agreement enables ranchers to stay in business by providing their cattle with fresh sources of grass and their heavily grazed land with a much-needed rest.” No. 8 should be reworded as follows: Existing grass banks shall be supported, and retired grazing allotments shall be returned to part of the actively managed grazing system when the negative effects for which the grazing allotments were retired have been ameliorated. I do not see any reason for favoring returning retired grazing allotments over existing grass banks.</p>	Language was added to better describe grass banks and retired allotments.
M. Dudley C.	9. In part states: “Plans specifically managing for one species are not supported.” This sentence should be eliminated from No. 9. Isn’t this exactly what is being done when grazing (i.e. a euphemism for domestic livestock grazing – largely just cattle) is favored over other management tools for managing grasslands? This sentence could actually be used against “grazing”. And this also goes for other parts of the JCNRMP that state that managing for one species is not supported. Be careful what you argue for because you might just get it in a way you don’t want it!	Comment received. Allotments are managed for multiple use.



M. Dudley C.	<p>16. "The reduction of domestic livestock grazing AUMs to provide additional forage for another species or strictly for conservation purposes is not supported." Again, just as in No. 9, this statement is actually advocating for a plan to specifically manage for one species (domestic livestock - cattle), which you argue shouldn't be done.</p> <p>27. States in part: "Post fire grazing will not be limited when unbiased post fire monitoring and evaluation produces relevant, accurate data demonstrating that grazing will not unduly harm the range." The word "unduly" should be eliminated from this sentence. Domestic livestock shouldn't harm the range at all. Thus, cattle in any large number on a range will degrade the range, which will harm herds of deer and elk. And sheep are even worse because they will graze grass down to the roots. Again, as in Nos. 9 and 16 you are really advocating for managing for one type of species, namely, domestic livestock.</p>	Comment received and taken into consideration; no changes made.
Bighorn National Forest	Page 102, #5: We were warned about including this statement. Our suggestion is to add the context of that strategy: "...strive to maintain or exceed the current allocation of 113,000 AUMs" while mentioning that this strategy includes the requirement to manage to meet desired conditions.	Updated language in document.
Bighorn National Forest	Page 102 The word shall and must is used throughout these priorities. Suggest changing to "should" or "will continue to". Also, Priorities 6 and 8 are contradictory, and I don't think "grass bank" is the term FS uses. The Forest has forage reserves, no grass banks.	Language updated.



<p>Bighorn National Forest</p>	<p>Page 103, Priority #27 - “Grazing rest prescriptions related to either wildfires or prescribed burns will be determined on a site-specific basis. Post fire grazing will not be limited when unbiased post fire monitoring and evaluation produces relevant, accurate data demonstrating that grazing will not unduly harm the range.”</p> <p>Recommend removing or clarifying the intent of “unbiased” in the post-fire monitoring. Specifically, we recommend the addition of the following verbiage to the NRMP: In the event that grazing on federal lands is temporarily suspended due to fire, recommence grazing on the basis of monitoring and site-specific rangeland health determinations rather than solely on fixed timelines. Return livestock grazing to pre-fire levels when post-fire monitoring data shows established objectives have been met or have been achieved to an extent allowed by the site potential. Require the use of credible data as previously defined to make these determinations.</p>	<p>Language updated.</p>
<p>Bighorn National Forest</p>	<p>Page 103, Item 29. Due to budget and staffing challenges this could delay turn-on if the federal agencies are not able to collect data. Resting one to two growing seasons after a wildland fire is a BMP that could be considered.</p>	<p>Updated language in priority statement.</p>





Bighorn National Forest	<p>Page 103, Priority #22 - “Agencies shall collaboratively develop and implement rangeland monitoring programs using the template created by the Public Lands Council for all allotments using currently accepted scientifically based monitoring methods and return intervals utilizing properly trained rangeland personnel with an understanding of rangeland and its management to ensure proper collection and analysis of data.”</p> <p>The Bighorn NF and permittees have had the opportunity for collaborative monitoring for decades. Several Wyoming Department of Agriculture Rangeland Health Assessment Program projects have occurred on the Bighorn. Long-term (trend) monitoring and annual (allowable use) monitoring locations and protocols are understood by the Forest and the permittees and can be reviewed and discussed at each annual operating meeting. While the Bighorn NF has never used the PLC template, a variety of other methods are used. Bighorn NF permittees can do their own monitoring, and if the data is collected and submitted per written protocols, it can be included in the allotment record.</p>	The priority statement regarding PLC was not included in the Johnson County NRMP as it was in the Big Horn County NRMP.
Linda G.	Resource Management Objective: add “or eliminating” after reducing	Language added to objective.



<p>M. Dudley C.</p>	<p>3. "Support recognized proactive efforts such as aerial hunting, snares, and leg traps to control predator populations." This item should be rewritten as follows: Support recognized proactive efforts such as hunting to control predator populations. Snares and leg traps are cruel ways to catch predators and cause the predators unnecessary suffering. And aerial hunting can lead to the decimation of a predator population, which then leads to overpopulation in prey species, which then leads to their starvation in the winter months.</p> <p>4. "The County opposes restrictions to current predator control methods." What are the current predator control methods? They should be enumerated. Rewrite this section as follows: The County supports reasonable scientifically based restrictions to current predator control methods.</p> <p>6. "When addressing a decline in sensitive species, predator control shall be employed prior to placing any restrictions on resource-based industries like livestock grazing. Only when predation is determined to not be the cause of decline shall restrictions on the resource industries be considered prior to predator management." This item should be rewritten as follows: When addressing a decline in sensitive species, predator control may be employed as one of the means of addressing such a decline. Restrictions on resource-based industries like livestock grazing may also be employed as a means of addressing such a decline. The underlining assumption in item 6 is that livestock grazing is not the cause of the problem, when in fact it may be the cause of the problem. Once again, the County is really just managing the range for one type of species, i.e., livestock, namely, cattle.</p>	<p>These policies are consistent with WGFD policies and follow the best science for predator control</p>
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M. Dudley C.	10. "The use of M44's or Cyanide bombs for Predator control on public lands should be discouraged, unless properly monitored by the local control board, as it raises the potential of conflicts with recreating public activities and their pets." "Cyanide" is misspelled. It should be Cyanide. M44 should be defined, since the general public won't know what this is (definition in original document). This item should be rewritten as follows: The use of M44's or Cyanide bombs for Predator control on public lands should be illegal. The use of these weapons is totally uncalled for and dangerous. And Cyanide is a poison that can damage and kill humans and animals in small doses.	These policies are consistent with WGFD policies and follow the best science for predator control
Linda G.	Third bullet: You might want to mention the conservation districts' Weed Days on which volunteers pull weeds for the day. Anita will have more information on this.	
Linda G.	5th paragraph, first sentence: insert "takes" between and and their	Updated language in the document for clarity.
M. Dudley C.	10. "The County does not support listing of cheatgrass as a noxious weed." Why doesn't the County consider cheatgrass as a noxious weed? This is not spelled out anywhere in Section 7.4 Noxious Weeds and Invasive Species.	Added clarifying language in background.
Bighorn National Forest	Page 128, Table 8. Focal species include the Northern goshawk.	Updated language in the document.
Bighorn National Forest	Page 129, Table 9. Consider adding the category for each species so the reader can tell what is endangered, threatened, proposed, sensitive, or candidate species.	Category column was added to table.
M. Dudley C.	Tables 1 and 2 are mislabeled. Table 1 should be labeled Table 2 and Table 2 should be labeled Table 1, see pages ix, 20 and 57.	Updated table of contents.



<p>Council for the Bighorn Range - Rob D.</p>	<p>The Council for the Bighorn Range (CBR) wishes to thank the Johnson County Board of County Commissioners for this opportunity to provide comments on the draft Natural Resource Management Plan (August 2020). CBR is a non-profit entity covering the public lands across the range and basins, including Johnson County. The first office for CBR was in Buffalo, and it was incorporated in Buffalo (2016).</p> <p>Rob Davidson started working in Johnson County in the 1970s in oil and gas exploration. In the mid-1980s, settled in Johnson County, first working in-situ uranium mining as a driller, then twenty-two years in pipelines and terminals in Johnson and Sheridan Counties. The last eight years have been as an organizer for the wilderness, the environment, roadless, and public lands in the region.</p>	<p>Comment received and taken into consideration</p>
<p>Council for the Bighorn Range - Rob D.</p>	<p>Concurrent with the passage of the Taylor Grazing Act (1934), more than 93,000 acres of the Bighorn National Forest were recognized and managed as having wilderness characteristics and became the Cloud Peak Primitive Area. It was only one of six in the Rocky Mountain Region (R2) of the USDA-FS. Several large ranches tied to allotments and permits on Federally managed public land have gone under conservation easements to protect land, wildlife, water, and customs and culture.</p>	<p>Comment received and taken into consideration.</p>
<p>Council for the Bighorn Range - Rob D.</p>	<p>The Fish and Wildlife Service (USFWS) is responsible to the Forest Service and BLM for identifying sensitive species. They are also responsible for species covered under the Migratory Species Treaty Act. Johnson County is home to several bird species that travel from Alaska and Siberia or South and Central America that come to breed here. They are essential to the ecosystem here. The Wyoming Game and Fish is responsible across all land for wildlife but works with the USFWS and federal land management agencies through the generations with MOU's</p>	<p>Language added on Migratory Bird Act.</p>



Council for the Bighorn Range - Rob D.	Often, especially across the sagebrush steppe, more than one sensitive species may be involved when the BLM or FS controls work to alter the range. In the BNF Invasive Plant Management and native species plan it calls for the use of herbicides to cull sagebrush stands. The mountain sagebrush provides habitat to four species of sagebrush obligates, not just one.	Comment received and taken into consideration.
Council for the Bighorn Range - Rob D.	The Bighorn National Forest did not amend its Forest Plan to join the more extensive Wyoming Sage-grouse agreement, as did Bridger-Teton, Medicine Bow NF.	Language added to document to clarify this.
Council for the Bighorn Range - Rob D.	The State of Wyoming does manage wildlife on all lands; private, state, Federal. The federal land management agencies manage habitat on public land. The federal land management agencies are not responsible for elk herds moving off USFS lands adjacent to private lands.	Comment received and taken into consideration.
Council for the Bighorn Range - Rob D.	The Council for the Bighorn Range, through FOIA and meeting with Forest Service, and more show \$600k per year leave the Forest from recreation fees while our Bighorn NF suffers in recreation budget compared to other NFs in the region.	Comment received and taken into consideration.
Council for the Bighorn Range - Rob D.	Recreation/tourism is the second biggest economic driver to the County and the state. It is also the only one that pays its way on a timely basis. On Pg. 89 of the NRMP, it stated in 2015, Hunters and anglers contributed \$25.3 million to the economy of Johnson County. According to BEA, in 2015, agriculture, fishing, and logging contributed \$35.7 million to Johnson County GDP. However, if hunting and fishing were tallied with recreation, a more appropriate categorization would have been \$10.4 Million of county GDP, and recreation would have been \$46.1 million of county GDP.	Comment received and taken into consideration.
Council for the Bighorn Range - Rob D.	The socioeconomic profile of Johnson County is unusual with lumping agriculture together with hunting and fishing? This distorts and deflects retail and services and their place in the local economy.	Comment received and taken into consideration.
Bighorn National Forest	All Appendices - Validate that the lists in the appendices are the latest for each agency.	Reviewed and updated.



M. Dudley C.	Wyoming should rename the “Wyoming Game and Fish Commission” to “Wyoming Wildlife and Fish Commission” and rename the “Wyoming Game and Fish Department” to the “Wyoming Wildlife and Fish Department”. Using the word “Game” implies that all wildlife is to be hunted and not protected. “Game” is a loaded word when it comes to conservationists, especially, when the word “wildlife” is used in department and commission documents rather than “game”.	Outside scope of this document.
Council for the Bighorn Range - Rob D.	Johnson County shares the Bighorn Mountains, basins, and range on Federally managed public lands five other Wyoming counties. With the Bighorn National Forest, they include Sheridan, Big Horn, and Washakie counties. With the Bureau of Land Management, the reach includes Sheridan, Campbell, Washakie, and Natrona Counties. Each of these counties has a unique history. Only at the northwest extent of Johnson County do the boundaries come close to representing the topography of the landscape. As noted in the history section of the NRMP, the boundaries are a creature of politics and power, not a landscape. Consistent with Wyo. Stat. § 9-4-218(a)(viii)(D), the County developed this plan in public meetings in accordance with Wyo. Stat §§ 16-4-401 through 16-4-408, allowing for participation and contribution from the public.	Comment received and taken into consideration.
Council for the Bighorn Range - Rob D.	Any comprehensive plan does not cover seventy percent of the Johnson County. Currently, both the Bighorn National Forest (BNF) NF and the Bureau of Land Management (BLM) have comprehensive plans for the federal public lands they manage. Johnson County elected officials, including Commissioners and Conservation District personnel, were part of the planning efforts for these comprehensive plans such as the Forest Plan Steering Committee for the Bighorn National Forest. The BLM has a very comprehensive "cooperating agency" system.	Comment received and taken into consideration, the scope of this plan is only for federal lands and those lands affected by federal decisions.
Council for the Bighorn Range - Rob D.	CBR cannot support the micro-management of the public resource at the individual county level. That management is what is called for under section 7.2.	Federal law allows counties to participate in the management of federal lands.





M. Dudley C.	I have often found it the case that the recreational industry supplies many more tax dollars and employs many more people than extractive industries do and that the recreational industry does far less damage to public and private lands than the extractive industries do. And the taxpayers are left with high clean-up bills for the extractive industries due to bonding for these projects being totally inadequate.	Comment received and taken into consideration.
Jacquelyn W.	The Objectives and the Priorities that follow each section are informative but might be more meaningful if they included examples of concrete issues Johnson County is grappling with. This could add strength to the Priorities by identifying any existing or potential hotspots unique to Johnson County. In other words, clarify what the administrative and public groups need to focus on.	The background sections are intended to provide this specific information if available along with information on the legal aspects of the resource.
Bighorn National Forest	All Pages - Recommend removing “shall” and “must” and any statement that appears to direct authority over USFS-managed lands throughout the NRMP objective. Some priority statements seem to direct rather than encourage cooperation of land management (see attached comments in Markup of NRMP for examples). We recommend selecting a consistent and appropriate set of terms such as “should coordinate” to imply that cooperative land management would occur. These terms are already used in other priority sections of the NRMP.	Language was changed where appropriate. Those priorities that say shall or must have a federal law making such requirements mandatory.



**Attachment #20**  
**Appendix I – Sample Private Landowner Letter**

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# Attachment I

Sample Private Landowner Letter



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Buffalo Field Office  
1425 Fort Street

Buffalo, WY 82834



In Reply Refer To:  
1610

October 5, 2022

RE: Surface Owner Consultation Coal Screen – Supplemental Environmental Impact Statement to the Approved Resource Management Plan for the Buffalo Field Office.

Dear Surface Owner:

On October 3, 2022, the Bureau of Land Management (BLM) published a Notice of Intent (NOI) for a potential amendment to the Approved Resource Management Plan (RMP) for the Buffalo Field Office and to prepare an associated Supplemental Environmental Impact Statement (SEIS). This potential amendment and associated SEIS is in response to a United States Montana District Court order (Western Organization of Resource Councils, et al vs BLM; 8/03/2022).

In response to the order, the BLM is re-evaluating the four coal screens in accordance with 43 CFR 3420.1-4(e). The coal screens include: identification of coal development potential, 20 unsuitability criteria, multiple use conflicts, and surface owner consultation. The BLM has identified your private lands, which overlie federal coal deposits, as lands determined to have potential for coal development.

This is the second court order for coal screening in three years. You may recall receiving a similar letter in January 2019.

In accordance with 43 CFR 3420.1-4(e)(4)(i), BLM requests you notify the Buffalo Field Office in writing by **November 7, 2022** on the following information:

1. If you are a surface owner for lands within the coal development potential area identified on the attached map.
2. Your preference for or against mining by other than underground mining techniques on Enclosure 1.

3. Any additional information on your lands that would be beneficial in determining the suitability or unsuitability for coal leasing.

To facilitate this request, the BLM has enclosed a document, Enclosure 1, with the appropriate information being requested. Please use Enclosure 1 to notify the Buffalo Field Office on the points listed above and return it by using the enclosed envelope by **November 7, 2022**.

Any views provided through this request may be used in the completion of the SEIS and may be available for public review. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold, from public view, your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations, from businesses, and from individuals identifying themselves as representatives of organizations or businesses, will be available for public review.

Because this is a planning document, lands considered under this SEIS would be analyzed to determine if they are acceptable for further considerations for coal leasing or unacceptable for further considerations for coal leasing. Leasing decisions would be considered under separate NEPA reviews when an application for leasing is submitted to the BLM. Therefore, the BLM would not be making leasing decisions at this time.

BLM is hosting a public meeting initiating this SEIS at the Campbell County Public Library (2101 S. 4J Road, Gillette, WY) on October 17 from 5:00 pm to 7:00 pm.

After review of the surface owner consultation responses, the SEIS will be prepared. Additional information including screening results and the SEIS will be posted on the BLM [e-Planning website](#). BLM plans to have the SEIS available for public comment in early 2023.

We look forward to hearing from you on this project. If you have any questions, please contact Tom Bills, Planning and Environmental Coordinator, at (307) 684-1133.

Sincerely,

/s/ Todd D. Yeager

Todd D. Yeager  
Field Manager

Enclosure 1 – Documentation of Surface Owner Consultation  
Map – BLM Coal Development Potential Area, Campbell County  
Return Envelope

**Enclosure 1.**

Please returned to the Buffalo Field Office by November 7, 2022.

**Please Check One:**

I am authorized to express my views as a qualified surface owner in accordance with 43 CFR 3400.0-5(gg), having met the following requirements; I hold legal or equitable title of this land surface. I have my principal residence on this land, or I personally farm or ranch on this land, or I receive a significant portion of my income from farm or ranch operations on this land. I have met the requirements since (year) \_\_\_\_\_.

I do not meet the requirements for a qualified surface owner in accordance with 43 CFR 3400.0-5(gg). Please explain below.

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Please identify your view(s) on leasing as listed below by aliquot or group of land description also listed below. Multiple views can be identified by aliquot or group land description(s). Provide additional information on the reserve side.

1. I am in favor of leasing of federal coal on these lands. \_\_\_\_\_
2. I am against leasing of federal coal on these lands. \_\_\_\_\_
3. I am undecided in favor or opposed to federal coal leasing on these lands. \_\_\_\_\_
4. I have already given written consent for surface mining of federal coal on these lands. \_\_\_\_\_

*Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold, from public view, your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations, from businesses, and from individuals identifying themselves as representatives of organizations or businesses, will be available for public review.*



**Attachment #21**  
**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

ID	Start time	Completion time	Email	Name	Name2	Email Address	Phone Number	Age	I am a registered voter in Campbell County	I am a resident of the State of Wyoming	County of Residence
1	5/30/24 17:15:20	5/30/24 17:16:19	anonymous		Georgette E Hoffman	George318@live.com	307-299-3720	58	Yes		
2	5/30/24 17:19:02	5/30/24 17:19:59	anonymous		Jack Laakso	bhfsjack@hotmail.com	3076967317	69	Yes		
3	5/30/24 17:37:44	5/30/24 17:38:33	anonymous		Chad Beeman	Cbeeman77@yahoo.com	6023212898	46	Yes		
4	5/30/24 17:57:59	5/30/24 17:59:07	anonymous		Marlo Hertel	jojo_girl83@yahoo.com	6054303087	59	Yes		
5	5/30/24 18:06:00	5/30/24 18:06:58	anonymous		Kelle kellebrew	Kellebrewk@hotmail.com	307-660-3413	39	Yes		
6	5/30/24 19:58:34	5/30/24 19:59:31	anonymous		Danice Conzelman	Dani.c2020@outlook.com	3072905219	62	Yes		
7	5/30/24 20:34:17	5/30/24 20:35:12	anonymous		Brandi Harlow	Brandibeech@yahoo.com	4069453620	47	Yes		
8	5/30/24 20:37:06	5/30/24 20:37:56	anonymous		Arrow Langston	Langston82732@yahoo.com	3072998324	48	Yes		
9	5/30/24 20:40:48	5/30/24 20:41:34	anonymous		Ashleu	Ashleyg480@gmail.com	3076891878	36	Yes		
10	5/30/24 20:41:24	5/30/24 20:41:55	anonymous		Tarina Leithead	Ttleit@gmail.com	307-660-8054	56	Yes		
11	5/30/24 20:41:16	5/30/24 20:42:06	anonymous		Jennifer Ferguson-Parkh	O6fergy@gmail.com	307-689-0133	42	Yes		
12	5/30/24 20:41:59	5/30/24 20:42:52	anonymous		Dennis Leithead	DennisLeithead@gmail.com	3076609589	60	Yes		
13	5/30/24 20:43:59	5/30/24 20:45:05	anonymous		Wayne Morgan	PO Box 1008 Wright WY 82732	307-689-5099	55	Yes		
14	5/30/24 20:44:31	5/30/24 20:45:06	anonymous		Jonathan Aiken	Jdaiken@hotmail.com	3079490781	23	Yes		
15	5/30/24 20:45:36	5/30/24 20:46:33	anonymous		Kady gonzaless	Henrykady@msn.com	3074641179	48	Yes		
16	5/30/24 20:45:26	5/30/24 20:47:01	anonymous		Janet Schneider	sjschneider@yahoo.com	307-680-8101	65	Yes		
17	5/30/24 20:47:02	5/30/24 20:48:08	anonymous		Schelbi duff	Schelbi_10@hotmail.com	3072991525	31	Yes		
18	5/30/24 20:48:01	5/30/24 20:48:47	anonymous		Kim Real	kimdarrell@gmail.com	3076800149	52	Yes		
19	5/30/24 20:49:48	5/30/24 20:50:31	anonymous		Hallie Ferguson	Fergusonhallie26@gmail.com	3076700266	20	Yes		
20	5/30/24 20:51:01	5/30/24 20:51:40	anonymous		Riley Parkhurst	Wrighttwelddservice@gmail.com	3076890968	38	No		
21	5/30/24 21:06:42	5/30/24 21:07:57	anonymous		Christopher Kirk	kriskirk1971@gmail.com	3076824695	52	Yes		
22	5/30/24 21:08:45	5/30/24 21:09:17	anonymous		Mandy Robb	Mrobb1014@gmail.com	3076806586	41	Yes		
23	5/30/24 21:10:15	5/30/24 21:11:00	anonymous		Tiffany camilli	Dayzi1024@yahoo.com	3212302310	43	Yes		
24	5/30/24 21:11:02	5/30/24 21:11:34	anonymous		Brian Camilli	Milkraps@yahoo.com	4074514006	45	Yes		
25	5/30/24 21:13:20	5/30/24 21:14:40	anonymous		Melissa Seeger	kosters50@yahoo.com	307-680-9752	40	Yes		
26	5/30/24 21:15:15	5/30/24 21:16:00	anonymous		Luana Despot	murphyLuana@yahoo.com	307-257-1017	45	Yes		
27	5/30/24 21:20:04	5/30/24 21:20:54	anonymous		Jaimie Schaffert	jaimieschaffert@gmail.com	3076601164	38	Yes		
28	5/30/24 21:19:35	5/30/24 21:21:14	anonymous		David Snider	Davidr.snider@gmail.com	3072573953	67	Yes		
29	5/30/24 21:28:53	5/30/24 21:29:22	anonymous		Mike Montgomery	Michael.montgomery6294@yahoo.com	307-250-7413	37	Yes		
30	5/30/24 21:29:00	5/30/24 21:29:43	anonymous		Tia Anderson	tiamanderson26@gmail.com	7204010065	32	No		
31	5/30/24 21:29:49	5/30/24 21:31:40	anonymous		Kelly Schroeder	Kelly477@live.com	3077465607	47	No		
32	5/30/24 21:33:54	5/30/24 21:34:28	anonymous		Justin Robb	Copenhagenrobb@hotmail.com	307 680 5145	46	Yes		
33	5/30/24 21:44:45	5/30/24 21:45:19	anonymous		Gerald watts	geraldwatts1967@gmail.com	307 689 2086	56	Yes		
34	5/30/24 22:02:07	5/30/24 22:02:44	anonymous		Katie Pearson	Katie.pearson02@gmail.com	307-251-0088	34	Yes		
35	5/30/24 22:27:06	5/30/24 22:27:53	anonymous		Chad Nannemann	chadnannemann@gmail.com	3076604790	52	Yes		
36	5/30/24 22:33:43	5/30/24 22:34:54	anonymous		Stephanie Neely	scowdin@yahoo.com	307-680-0523	52	Yes		
37	5/30/24 22:34:52	5/30/24 22:35:40	anonymous		Brooke hooper	Willowbeemoon@gmail.com	3079393005	26	Yes		
38	5/30/24 22:46:46	5/30/24 22:47:43	anonymous		Michelle Leiker	Mleighnd@yahoo.com	3072571775	49	Yes		
39	5/30/24 23:09:18	5/30/24 23:09:41	anonymous		Erin Veo	E_gallatin@yahoo.com	307-343-2238	36	Yes		
40	5/30/24 23:10:34	5/30/24 23:12:31	anonymous		Dustin Anderson	all_buttone@hotmail.com	307 629 1043	39	No		
41	5/31/24 0:55:22	5/31/24 0:55:58	anonymous		Kjerstine Casady Andersen	Casadykramer@gmail.com	6054302354	26	Yes		
42	5/31/24 1:35:18	5/31/24 1:44:44	anonymous		Christina Rodriguez	jimncristina@hotmail.com	3073516279	52	Yes		
43	5/31/24 2:14:54	5/31/24 2:15:52	anonymous		Kaelan Testerman	Testerman.kaelan@gmail.com	3076605485	24	Yes		
44	5/31/24 2:43:17	5/31/24 2:43:56	anonymous		Kellen Smith	smith_livestock@hotmail.com	3076801416	33	Yes		
45	5/31/24 3:50:52	5/31/24 3:52:16	anonymous		Re	cormaneyfamily@gmail.com you	307 6898666	56	Yes		
46	5/31/24 3:54:15	5/31/24 3:54:55	anonymous		Felicia Hartsoch	feliciasams90@gmail.com	3077562685	34	Yes		
47	5/31/24 3:55:01	5/31/24 3:55:47	anonymous		James Hartsoch	Darrylwd1513@gmail.com	3076803046	38	Yes		
48	5/31/24 5:24:44	5/31/24 5:26:20	anonymous		Debra L. Disney	roan.pony@hotmail.com	307-689-8496	63	Yes		
49	5/31/24 5:40:51	5/31/24 5:41:56	anonymous		Chelsey Edwards	brl_babe@hotmail.com	3076700318	40	Yes		
50	5/31/24 5:42:53	5/31/24 5:43:50	anonymous		Denene Wilson	Sdwilson486@vcn.com	3074646836	52	Yes		
51	5/31/24 5:43:57	5/31/24 5:44:40	anonymous		Scott Wilson	Sdwilson486@vcn.com	3076805894	56	Yes		
52	5/31/24 5:57:34	5/31/24 5:58:49	anonymous		Darcy Sams	Darcysams@gmail.com	3076809086	61	Yes		
53	5/31/24 6:00:27	5/31/24 6:01:20	anonymous		Alvina Letcher	allie.letcher@gmail.com	913-424-2448	36	Yes		
54	5/31/24 6:00:48	5/31/24 6:01:35	anonymous		Jessica Baysinger	Baysinger18@hotmail.com	3076808822	38	Yes		
55	5/31/24 6:03:23	5/31/24 6:04:59	anonymous		Barbara Noel	tbtcanoel@yahoo.com	680-2521	47	Yes		
56	5/31/24 6:08:57	5/31/24 6:09:49	anonymous		Troy Noel	tbtcanoel@gmail.com	680-6517	53	Yes		
57	5/31/24 6:09:08	5/31/24 6:10:13	anonymous		Shanda Jones	jones6@collinscom.net	3076801522	60	Yes		
58	5/31/24 6:10:19	5/31/24 6:11:23	anonymous		Rusty Jones	rjones@collinscom.net	3076801172	61	Yes		
59	5/31/24 6:27:47	5/31/24 6:29:21	anonymous		Nancy Mills	nmills845@gmail.com	307.689.1699	74	Yes		
60	5/31/24 6:52:39	5/31/24 6:53:27	anonymous		Marcus Mullaney	marcusmullaney@gmail.com	307-871-4929	38	Yes		
61	5/31/24 6:53:58	5/31/24 6:54:45	anonymous		Chris roemmich	Chris@wrightwyoming.com	3072992434	38	Yes		
62	5/31/24 7:16:10	5/31/24 7:16:54	anonymous		Taylor Vinot	Taylorvinot@hotmail.com	3076961309	30	Yes		
63	5/31/24 7:16:28	5/31/24 7:18:58	anonymous		William Scott Knigge	littleguywelding@gmail.com	307-299-5658	52	No		
64	5/31/24 7:41:42	5/31/24 7:42:48	anonymous		Michael T. Payne	mpayneosaurus@gmail.com	224 281 6024	39	Yes		
65	5/31/24 7:49:04	5/31/24 7:50:16	anonymous		Ellen Morgan	waynemorgan001@hotmail.com	3079393487	58	Yes		
66	5/31/24 7:58:10	5/31/24 7:59:13	anonymous		Brad candelaria	Garyfisher82@gmail.com	3076704750	38	Yes		
67	5/31/24 8:05:05	5/31/24 8:06:04	anonymous		Crystal Volk	crystalvolk1306@gmail.com	3076601306	51	Yes		
68	5/31/24 8:17:07	5/31/24 8:18:08	anonymous		Marley Ziegler	mziegler@lnh.net	3076607238	42	Yes		
69	5/31/24 8:17:57	5/31/24 8:19:22	anonymous		Barbara Craig	Barbara@wrightwyoming.com	3076963794	65	Yes		
70	5/31/24 8:36:10	5/31/24 8:38:00	anonymous		Nolene Wright	nlwright@vcn.com	3079391261	57	Yes		

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

71	5/31/24 8:54:01	5/31/24 8:54:44	anonymous	Henry Pridgeon	hankpridgeon@yahoo.com	3079391298	60	Yes
72	5/31/24 8:55:42	5/31/24 8:56:39	anonymous	Breanna	Hermansonbreanna@gmail.com	307-318-9990	27	Yes
73	5/31/24 9:33:23	5/31/24 9:33:53	anonymous	Stephen Cannon	stephen@turncoatagency.com	919-426-5458	38	Yes
74	5/31/24 9:36:45	5/31/24 9:37:35	anonymous	jack clary	sclary27@yahoo.com	3076604791	71	Yes
75	5/31/24 9:38:39	5/31/24 9:39:12	anonymous	Mary Payne	MaryStrokay@gmail.com	7087037871	34	Yes
76	5/31/24 10:16:39	5/31/24 10:17:48	anonymous	Christine Newton	Kywanstri@vcn.com	3076606210	62	Yes
77	5/31/24 10:18:41	5/31/24 10:19:09	anonymous	Terry	aktertyt@gmail.com	907-378-9140	35	Yes
78	5/31/24 10:43:35	5/31/24 10:44:40	anonymous	Tiffany stevens	Stevensranch1219@gmail.com	3076961573	36	Yes
79	5/31/24 10:44:44	5/31/24 10:45:11	anonymous	Carl stevens	Mycell120@gmail.com	3072283919	37	Yes
80	5/31/24 10:46:45	5/31/24 10:47:29	anonymous	Conagher Testerman	Conagher9@gmail.com	3077465768	22	No
81	5/31/24 10:53:50	5/31/24 10:54:21	anonymous	Robby Gallob	Rkljg4@gmail.com	3076227411	42	Yes
82	5/31/24 11:00:30	5/31/24 11:02:17	anonymous	Leah Thompson	leahthompson762@gmail.com	(307)6960766	24	Yes
83	5/31/24 11:12:11	5/31/24 11:13:05	anonymous	Ginger King	507 Sundance Court Wright Wyoming	307 680 4754	63	Yes
84	5/31/24 11:13:13	5/31/24 11:13:55	anonymous	Rod King	Gingerk257@gmail.com	307 Sundance Court	65	Yes
85	5/31/24 11:16:30	5/31/24 11:17:42	anonymous	Denise Nannemann	326 Cook Rd Gillette Wy	3076899082	71	Yes
86	5/31/24 11:47:47	5/31/24 11:54:42	anonymous	McKenzie Dudley	wyodudley@msn.com	307-670-0372	42	Yes
87	5/31/24 12:03:34	5/31/24 12:04:35	anonymous	Randi Cowart	randi_cowart@outlook.com	970-222-7196	40	Yes
88	5/31/24 12:07:48	5/31/24 12:08:26	anonymous	Bonnie	bspmhp@gmail.com	3076963795	54	Yes
89	5/31/24 12:14:11	5/31/24 12:14:52	anonymous	Anthony Blaisdell	Ablaisdell2013@gmail.com	3079394147	33	No
90	5/31/24 12:32:51	5/31/24 12:37:23	anonymous	Jennifer Farnes	jennifer_farnes@yahoo.com	307-689-9866	53	Yes
91	5/31/24 13:09:10	5/31/24 13:10:08	anonymous	Mike Anderson	manderson@nelbro.com	3076604526	61	Yes
92	5/31/24 14:03:27	5/31/24 14:04:29	anonymous	Brian J Smith	Smithbrian079@gmail.com	307-299-3411	57	No
93	5/31/24 14:12:27	5/31/24 14:12:53	anonymous	Shaela Smith	shsmith@ccsd.k12.wy.us	3072991877	30	Yes
94	5/31/24 15:18:01	5/31/24 15:18:59	anonymous	Jeremy carter	Jeremycarter29@yahoo.com	307-299-6964	42	Yes
95	5/31/24 16:09:42	5/31/24 16:10:38	anonymous	Denise richards	Lt rich@aol.com	4432232458	73	Yes
96	5/31/24 17:00:53	5/31/24 17:03:48	anonymous	Natasha Eisenbraun	Eisenbraun@collinscom.net	307-680-1859	49	Yes
97	5/31/24 17:07:20	5/31/24 17:07:55	anonymous	Jackie Johner	Jackiejohner@hotmail.com	3076894321	40	Yes
98	5/31/24 18:24:58	5/31/24 18:25:52	anonymous	Tina Bennett	predestined1@outlook.com	307-689-0135	55	Yes
99	5/31/24 18:53:08	5/31/24 18:54:08	anonymous	Crystal Conley	Tyler.Crystal13@gmail.com	3076600603	40	Yes
100	5/31/24 19:03:00	5/31/24 19:03:28	anonymous	Erin matte	erinmatte@hotmail.com	3076604385	40	Yes
101	5/31/24 19:03:40	5/31/24 19:04:21	anonymous	Nathan Matte	Nathan.matte@yahoo.com	3076604187	42	Yes
102	5/31/24 19:34:16	5/31/24 19:34:46	anonymous	Stacy Palmer	Stacy_ras@yahoo.com	307 257 9842	45	Yes
103	5/31/24 19:34:54	5/31/24 19:35:34	anonymous	Wendy Fiskejton	Wendyfiskejton@gmail.com	3076220501	43	Yes
104	5/31/24 19:39:51	5/31/24 19:40:39	anonymous	Jeanene Groves	jgroves@collinscom.net	307-687-7014	63	Yes
105	5/31/24 19:40:21	5/31/24 19:41:19	anonymous	Micky Shober	mick9801@gmail.com	3076803993	74	Yes
106	5/31/24 19:48:05	5/31/24 19:48:45	anonymous	Hugh Palmer	Hcpalmer74@gmail.com	3076604316	49	Yes
107	5/31/24 20:12:32	5/31/24 20:13:17	anonymous	Ken Curtiss	k.curtiss135@gmail.com	3072991593	52	Yes
108	5/31/24 22:24:31	5/31/24 22:25:08	anonymous	Dawn Entel	scrapor0497@gmail.com	307-670-5317	40	Yes
109	5/31/24 22:25:14	5/31/24 22:25:59	anonymous	William Entel	williamentel_500@yahoo.com	307-939-3158	37	Yes
110	5/31/24 22:29:34	5/31/24 22:30:19	anonymous	Chad Thornberry	Chad.thornberry@yahoo.com	3072990383	39	Yes
111	5/31/24 22:32:48	5/31/24 22:34:06	anonymous	Heidie Jasiak	Heidie_h@hotmail.com	3977610823	42	Yes
112	5/31/24 22:33:47	5/31/24 22:35:32	anonymous	Tobie Shinkle	treshink1@gmail.com	3072773250	47	Yes
113	5/31/24 22:35:24	5/31/24 22:36:26	anonymous	Danielle Hendrickson	daniellehendrickson701@gmail.com	3074096580	39	Yes
114	5/31/24 22:35:38	5/31/24 22:37:01	anonymous	Kelley Boltin	Kelley.boltin@gmail.com	307-689-4185	59	Yes
115	5/31/24 22:37:30	5/31/24 22:38:30	anonymous	Darron Boltin	Darron.boltin64@gmail.com	307-299-6134	59	Yes
116	5/31/24 22:44:55	5/31/24 22:46:02	anonymous	Shealyn Bender	shealyn.bender14@gmail.com	3076228166	27	Yes
117	5/31/24 22:51:19	5/31/24 22:52:32	anonymous	Douglas J Evert	Dgls.evert@gmail.com	3077610222	45	Yes
118	5/31/24 22:52:45	5/31/24 22:53:34	anonymous	Kimberly Garland	garland351@gmail.com	3076893018	45	Yes
119	5/31/24 23:55:03	5/31/24 23:56:30	anonymous	Daniel J. Kaufmann	danieljkaufmann24@gmail.com	307-660-7438	70	Yes
120	6/1/24 0:28:08	6/1/24 0:29:23	anonymous	Kate Matthews	katiep52@hotmail.com	3072994583	42	Yes
121	6/1/24 4:21:53	6/1/24 4:23:13	anonymous	Chri Huffer	Huffer_c@yahoo.com	3073226029	48	No
122	6/1/24 4:26:43	6/1/24 4:27:15	anonymous	Paula Brown	Sapphire1974@live.com	307-746-6220	50	No
123	6/1/24 5:24:59	6/1/24 5:25:24	anonymous	Micheal Lish	Micheal.lish1@gmail.com	479-629-2230	32	Yes
124	6/1/24 6:27:27	6/1/24 6:28:38	anonymous	Jerika Sargent	jergojkovich@aol.com	3076890521	35	No
125	6/1/24 6:31:34	6/1/24 6:32:23	anonymous	Julie Aldinger	jdinger755@gmail.com	307-687-7655	72	Yes
126	6/1/24 6:49:39	6/1/24 6:50:34	anonymous	Elizabeth Ringeisen	Libbyringeisen@yahoo.com	505-288-9715	55	Yes
127	6/1/24 6:51:44	6/1/24 6:53:00	anonymous	Jack Ringeisen	j.ringeisen1@yahoo.com	307-689-3913	55	Yes
128	6/1/24 6:58:20	6/1/24 6:58:44	anonymous	Patricia Junek	Pjunek@outlook.com	307.359.9075	65	Yes
129	6/1/24 7:10:11	6/1/24 7:10:56	anonymous	Robert J Bren	Rjbren63@gmail.com	307-696-5671	61	Yes
130	6/1/24 7:11:16	6/1/24 7:11:47	anonymous	Kendra Gloem	Krae1774@gmail.com	3072990738	50	Yes
131	6/1/24 7:24:58	6/1/24 7:25:35	anonymous	Travis Bennett	tbennett@wyoming.com	4066962390	57	No
132	6/1/24 7:31:11	6/1/24 7:35:08	anonymous	Gail Heath	Cciheath@yahoo.com	307-680-3285	76	Yes
133	6/1/24 7:35:14	6/1/24 7:36:24	anonymous	Brian Heath	Ccisteel@yahoo.com	307-689-3454	76	Yes
134	6/1/24 7:44:11	6/1/24 7:44:52	anonymous	Audrey Langley	mountainrose@bresnan.net	307-660-3850	64	Yes
135	6/1/24 7:49:52	6/1/24 7:50:57	anonymous	Helen Hayden	pearl82718@gmail.com	307-299-1459	63	Yes
136	6/1/24 7:55:27	6/1/24 7:56:35	anonymous	Tyler	Tylerconley970@gmail.com	6207944817	34	Yes
137	6/1/24 7:58:30	6/1/24 7:58:55	anonymous	Krystal Schmit	Tkjc0355@gmail.com	307-660-0355	40	Yes
138	6/1/24 7:59:05	6/1/24 8:00:16	anonymous	Wyoming State House Rr	copychris@vcn.com	3076604566	55	Yes
139	6/1/24 8:02:13	6/1/24 8:02:44	anonymous	Matthew	Matthew.spear33@gmail.com	3077562573	41	Yes
140	6/1/24 8:03:28	6/1/24 8:03:59	anonymous	Kyle deshaw	Kdeshaw@gmail.com	307 660 0317	37	No
141	6/1/24 8:05:03	6/1/24 8:07:20	anonymous	Danica Graham	danicagramham@yahoo.com	605-366-8568	47	Yes
142	6/1/24 8:06:36	6/1/24 8:07:31	anonymous	Ross Milliken	rmmilliken@vcn.com	6052100205	63	Yes
143	6/1/24 8:07:43	6/1/24 8:08:15	anonymous	Shawn kipp	Shawnkipp@gmail.com	307-689-6602	48	No

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

144	6/1/24 8:07:42	6/1/24 8:08:32	anonymous	Rhonda Milliken	rlm1255@hotmail.com	3076963448	68	Yes
145	6/1/24 8:15:42	6/1/24 8:16:11	anonymous	Anna Wilson	alaaks@hotmail.com	3076805983	37	Yes
146	6/1/24 8:45:59	6/1/24 8:46:21	anonymous	Ashley Lake	Ashlake85@gmail.com	3077562574	39	Yes
147	6/1/24 8:54:20	6/1/24 8:54:58	anonymous	Tom Albin	ussoldier33@gmail.com	3076969299	32	Yes
148	6/1/24 8:55:09	6/1/24 8:57:13	anonymous	Jasmine King	dahme1974@gmail.com	3076805876	50	No
149	6/1/24 8:57:17	6/1/24 8:58:01	anonymous	Jason King	Remm22243@gmail.com	3076808134	47	No
150	6/1/24 9:00:06	6/1/24 9:00:44	anonymous	Shannon Ireland	Shannonnicole115@gmail.com	4064600880	31	Yes
151	6/1/24 9:29:27	6/1/24 9:30:15	anonymous	Laura Leonard	Loraleonard09@live.com	3076963019	65	Yes
152	6/1/24 9:31:41	6/1/24 9:32:20	anonymous	Monica L Brown	9 Medicine Lodge Rd	3076899500	49	Yes
153	6/1/24 9:35:51	6/1/24 9:36:24	anonymous	Lori Schram	Lori1861@gmail.com	307-680-1259	60	Yes
154	6/1/24 10:16:07	6/1/24 10:16:43	anonymous	Julie caylor	Juliecaylor@hotmail.com	3077562963	37	Yes
155	6/1/24 10:16:52	6/1/24 10:17:56	anonymous	Anne Fleck	Anniefleck16@yahoo.com	2533079927	28	Yes
156	6/1/24 10:47:30	6/1/24 10:48:32	anonymous	Darron Boltin	Darron.boltin64@gmail.com	307-299-6134	59	Yes
157	6/1/24 10:48:15	6/1/24 10:49:41	anonymous	Mark Martin	Mjmartin3400@gmail.com	3072810582	44	Yes
158	6/1/24 10:51:07	6/1/24 10:52:05	anonymous	Suzan Curtin	Sycurtin@msn.com	3076891619	65	Yes
159	6/1/24 11:09:44	6/1/24 11:10:31	anonymous	Jennifer Rasmussen	Jenras04@gmail.com	307-299-4279	55	Yes
160	6/1/24 11:10:40	6/1/24 11:12:28	anonymous	Loren Rasmussen	Wmslras01@gmail.com	307-464-6574	54	Yes
161	6/1/24 11:13:13	6/1/24 11:14:23	anonymous	Del Shelstad	delshelstad@outlook.com	307-660-4414	58	Yes
162	6/1/24 11:18:42	6/1/24 11:19:18	anonymous	Nicole Flores	nicolemehberg@outlook.com	3076701742	41	Yes
163	6/1/24 11:41:07	6/1/24 11:42:16	anonymous	Brian bowman	brianpbowman@hotmail.com	307-680-4616	46	Yes
164	6/1/24 11:42:30	6/1/24 11:43:35	anonymous	Brian Bowman	brianpbowman@hotmail.com	3076804716	47	Yes
165	6/1/24 12:41:47	6/1/24 12:42:15	anonymous	Julie Ickes	Jickes27@gmail.com	3076960864	32	Yes
166	6/1/24 13:24:58	6/1/24 13:25:59	anonymous	Laura Edwards Iverson	Edwardslaura@hotmail.com	3076899905	56	Yes
167	6/1/24 13:40:42	6/1/24 13:41:30	anonymous	Pamela Veater	plvhandnheart@yahoo.com	7027888995	65	Yes
168	6/1/24 13:41:33	6/1/24 13:42:04	anonymous	Ricahrd Veater	plvhandnheart@yahoo.com	3072577135	66	Yes
169	6/1/24 13:45:34	6/1/24 13:46:03	anonymous	Hailey Collins	haileymariecollins02@gmail.com	2543153322	21	Yes
170	6/1/24 13:49:42	6/1/24 13:50:50	anonymous	John Munn	john.munn41554@gmail.com	3074617110	29	Yes
171	6/1/24 16:03:22	6/1/24 16:04:05	anonymous	James Fox	fire1113@hotmail.com	307-689-1821	43	Yes
172	6/1/24 16:29:06	6/1/24 16:29:32	anonymous	Kimberly Getchell	kimgetchell@gmail.com	3076607014	49	Yes
173	6/1/24 16:58:26	6/1/24 16:59:16	anonymous	Jody M McGee	jmmcgee@bresnan.net	307-299-0036	69	Yes
174	6/1/24 17:03:06	6/1/24 17:03:26	anonymous	Heather McDiarmid	Heatheroller@hotmail.com	3076894657	35	Yes
175	6/1/24 17:04:10	6/1/24 17:04:53	anonymous	Alexandra Hoyt	hoylexandra9@gmail.com	4172042200	65	Yes
176	6/1/24 17:21:11	6/1/24 17:21:59	anonymous	Kenneth Vance	kennyvance47@gmail.com	307 660 0867	64	Yes
177	6/1/24 17:25:45	6/1/24 17:26:33	anonymous	Thomas Giblock	tom@cyclonedrilling.com	307 680 5880	70	Yes
178	6/1/24 17:37:06	6/1/24 17:38:09	anonymous	Patricia Collins	3110 Sutherland Drive	3072579553	67	Yes
179	6/1/24 18:02:53	6/1/24 18:03:57	anonymous	Judy Baker	Djbaker@vcn.com	307-6606732	74	Yes
180	6/1/24 18:11:48	6/1/24 18:14:28	anonymous	Beverly Garst	Bevsbrev@gmail.com	307-660-6632	69	Yes
181	6/1/24 18:37:24	6/1/24 18:38:22	anonymous	Curtis Beyer	cjbever84@gmail.com	307-670-1491	39	Yes
182	6/1/24 19:19:02	6/1/24 19:19:33	anonymous	Kierston Blake	kclake88@gmail.com	3076960232	35	Yes
183	6/1/24 19:28:53	6/1/24 19:29:30	anonymous	Lauren pfenning	Lapfenning1989@gmail.com	3072990501	34	Yes
184	6/1/24 19:29:42	6/1/24 19:30:56	anonymous	Sherry streeter	sstreeter82701@gmail.com	307 746 307 746 3092	63	No
185	6/1/24 20:03:17	6/1/24 20:04:49	anonymous	Janet mccllelland	dollymccllelland@gmail.com	3076703958	66	Yes
186	6/1/24 20:04:11	6/1/24 20:05:25	anonymous	Paul Ditsch	Pditsch1@gmail.com	6055175666	38	No
187	6/1/24 20:33:56	6/1/24 20:34:59	anonymous	Danielle Forsell	daddysrose1120@gmail.com	3076806830	51	No
188	6/1/24 20:33:38	6/1/24 20:37:31	anonymous	Christopher Dichard	spikeandnellydichard@gmail.com	307-534-6432	62	No
189	6/1/24 21:00:33	6/1/24 21:01:10	anonymous	Stacy Kistler	kistlerstacy@gmail.com	3072993151	50	Yes
190	6/1/24 21:08:00	6/1/24 21:09:13	anonymous	Jacque Downey	downeyjacque@yahoo.com	307-299-9306	62	Yes
191	6/1/24 21:20:26	6/1/24 21:21:41	anonymous	Elizabeth Graves	lgraves@rtconnect.net	307-738-2483	60	No
192	6/1/24 21:24:39	6/1/24 21:25:18	anonymous	Miranda Kennedy	Miranda@kndy.net	3076701861	35	Yes
193	6/1/24 21:46:08	6/1/24 21:46:44	anonymous	Sherry monson	Sherrymonson@msn.com	3072997690	51	Yes
194	6/1/24 23:14:09	6/1/24 23:14:34	anonymous	Steven M. Callahan	pxandr@protonmail.com	3362023311	65	Yes
195	6/2/24 4:14:42	6/2/24 4:16:25	anonymous	Tom Ford	200 Commerce dr.	307-660-1040	60	Yes
196	6/2/24 5:44:19	6/2/24 5:45:02	anonymous	Leah Powell	leahpow74@gmail.com	307-660-6757	49	Yes
197	6/2/24 8:00:22	6/2/24 8:00:56	anonymous	Alyssa Patterson	aultbrightr@yahoo.com	3076700459	37	Yes
198	6/2/24 8:14:02	6/2/24 8:14:36	anonymous	Taylor Powell	taypow98@gmail.com	3076606861	26	Yes
199	6/2/24 8:43:10	6/2/24 8:44:36	anonymous	DaNelle DuVall	gordonjeff36@yahoo.com	307-680-0023	43	Yes
200	6/2/24 8:55:22	6/2/24 8:56:30	anonymous	Tara Pownall	2209 Jane ct Gillette WY 82718	8313323321	54	Yes
201	6/2/24 8:59:51	6/2/24 9:00:37	anonymous	Sarah Tyson	sarah Tyson2003@yahoo.com	307-670-5228	47	Yes
202	6/2/24 12:36:23	6/2/24 12:37:24	anonymous	Kevin Steele	Ksteele@nelbro.com	3072993601	37	No
203	6/2/24 12:58:29	6/2/24 13:01:12	anonymous	Darrell J Edwards II	joedyed1953@yahoo.com	3076803591	71	Yes
204	6/2/24 14:31:53	6/2/24 14:34:01	anonymous	Phil Harvey	Bighornhiker@gmail.com	307-299-8162	56	Yes
205	6/2/24 14:34:07	6/2/24 14:34:56	anonymous	Heather Harvey	Heatherharvey@hotmail.com	307-660-0901	54	Yes
206	6/2/24 15:43:11	6/2/24 15:44:04	anonymous	Jodi Wyllie	jodicrago64@gmail.com	3076605076	59	Yes
207	6/2/24 17:45:40	6/2/24 17:47:39	anonymous	Deborah Souza	Deb1den1@hotmail.com	307-689-7227	61	Yes
208	6/2/24 18:02:44	6/2/24 18:03:58	anonymous	Brent cook	Bccook24@gmail.com	3072996330	45	Yes
209	6/2/24 21:35:17	6/2/24 21:36:51	anonymous	Deirdre Blakesley	SDBlakesley@gmail.com	307-660-7599	60	Yes
210	6/2/24 21:50:46	6/2/24 21:51:19	anonymous	Justin Pfaff	lethal_customs00@yahoo.com	307-299-6487	39	No
211	6/3/24 0:13:20	6/3/24 0:14:43	anonymous	Matt Cowart	M.j.cowart77@gmail.com	970-216-8814	46	Yes
212	6/3/24 5:00:16	6/3/24 5:03:44	anonymous	Darrell Blakesley	Darrell.blakesley@yahoo.com	307-689-7045	65	Yes
213	6/3/24 5:50:48	6/3/24 5:51:24	anonymous	Nick Leiker	nickleiker@yahoo.com	307-660-5737	47	Yes
214	6/3/24 5:57:55	6/3/24 5:58:44	anonymous	Scott Blakesley	Sdblakesley@yahoo.com	307-660-0547	59	Yes
215	6/3/24 6:25:14	6/3/24 6:26:06	anonymous	Eric Barlow	eric.barlow@wyoleg.gov	307 660 9754	58	Yes
216	6/3/24 7:43:28	6/3/24 7:44:54	anonymous	Cindy Lovelace	cjlinsurance@gmail.com	307-660-5942	62	Yes

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

217	6/3/24 8:03:17	6/3/24 8:05:38	anonymous	Rebecca bunch-burdick	bunchbecky563@gmail.com	5098463652	63	No		
218	6/3/24 8:30:37	6/3/24 8:32:03	anonymous	David Kidd	david.rmhs@vcn.com	307-680-3763	66	Yes		
219	6/3/24 8:52:49	6/3/24 8:54:13	anonymous	Riki Reeves	Riki_reeves_10@hotmail.com	3076862600	36	Yes		
220	6/3/24 8:56:49	6/3/24 8:57:26	anonymous	April Hunt	aprilhunt109@gmail.com	3076850683	50	Yes		
221	6/3/24 9:18:15	6/3/24 9:19:20	anonymous	Dan Baker	4108 Brorby Blvd.	307-689-0049	56	Yes		
222	6/3/24 9:28:59	6/3/24 9:29:33	anonymous	Jeanne Kidd	Dkidd@vcn.com	307-680-0167	62	Yes		
223	6/3/24 10:00:15	6/3/24 10:00:58	anonymous	Kassie Aasen	kaasen1975@icloud.com	3076605784	48	Yes		
224	6/3/24 10:15:58	6/3/24 10:16:29	anonymous	Sue Cosgrove	A.Sue.cosgrove@hotmail.com	817-637-6167	55	Yes		
225	6/3/24 10:35:27	6/3/24 10:37:08	anonymous	Michael H. Cole	michael.humphrey.cole@gmail.com	307.299.2653	52	Yes		
226	6/3/24 10:46:36	6/3/24 10:47:01	anonymous	Gail Lofing	gailil@gillettechamber.com	3076608298	62	Yes		
227	6/3/24 10:51:30	6/3/24 10:53:26	anonymous	Scott Hielscher	sahielscher@gmail.com	970-520-3611	43	No		
228	6/3/24 12:32:11	6/3/24 12:32:50	anonymous	Lisa Wagner	lisaphilmark@yahoo.com	970-590-5177	56	Yes		
229	6/3/24 12:32:55	6/3/24 12:33:14	anonymous	Philip Wagner	lisaphilmark@yahoo.com	970-301-1551	59	Yes		
230	6/3/24 12:57:19	6/3/24 12:57:40	anonymous	Steve Williams	smwilliams@bresnan.net	3072990177	50	Yes		
231	6/3/24 13:38:49	6/3/24 13:39:41	anonymous	Barbara Luthy	Barbluthy893@gmail.com	3072998148	69	No		
232	6/3/24 14:05:25	6/3/24 14:05:41	anonymous	Shannon Kuchler	sjlatos@gmail.com	2162691827	49	Yes		
233	6/3/24 14:28:49	6/3/24 14:29:31	anonymous	Gayle Shaffer	Gshaffer5948@gmail.com	307-682-5948	58	Yes		
234	6/3/24 15:28:50	6/3/24 15:29:36	anonymous	Brandon Leair	brandonleair@gmail.com	307-365-1856	33	Yes		
235	6/3/24 15:38:18	6/3/24 15:40:17	anonymous	Karla Rieb	Karla.rieb@yahoo.com	3076607053	61	Yes		
236	6/3/24 16:17:15	6/3/24 16:18:17	anonymous	Wendy Dapra	Racing6413@yahoo.com	307-660-2289	58	Yes	Yes	Campbell
237	6/3/24 16:21:48	6/3/24 16:22:23	anonymous	Randi Cowart	randi_cowart@outlook.com	970-222-7196	40	Yes	Yes	Campbell
238	6/3/24 16:23:21	6/3/24 16:24:05	anonymous	THOMAS GIBLOCK	TOM@CYCLONEDRILLING.COM	36076805880	70	Yes	Yes	CAMPBELL
239	6/3/24 16:23:12	6/3/24 16:24:21	anonymous	Matt Cowart	M.j.cowart77@gmail.com	970-216-8814	46	Yes	Yes	Campbell County
240	6/3/24 16:22:34	6/3/24 16:25:00	anonymous	William Scotty Knigge	1410 Heather Ct Gillette Wy 82718	307-299-5658	52	No	Yes	Campbell
241	6/3/24 16:25:11	6/3/24 16:26:42	anonymous	Jo Petterson	jopetterson65@gmail.com	307-660-3708	58	Yes	Yes	Campbell
242	6/3/24 16:30:46	6/3/24 16:31:28	anonymous	Tina Bennett	predestined1@outlook.com	3076890135	55	Yes	Yes	Campbell
243	6/3/24 16:31:12	6/3/24 16:31:44	anonymous	Ashley Lake	ashlake85@gmail.com	3077562574	39	Yes	Yes	Campbell
244	6/3/24 16:32:44	6/3/24 16:33:06	anonymous	Chad	Thornberry	3072990383	39	Yes	Yes	Campbell
245	6/3/24 16:36:13	6/3/24 16:37:07	anonymous	Steven Callahan	pxandr@protonmail.com	3362023311	65	Yes	Yes	Campbell
246	6/3/24 16:42:50	6/3/24 16:43:36	anonymous	Phil Harvey			56	Yes	Yes	Campbell
247	6/3/24 16:43:39	6/3/24 16:44:06	anonymous	Heather Harvey			54	Yes	Yes	Campbell
248	6/3/24 16:46:59	6/3/24 16:48:35	anonymous	Kenneth Vance	kennyvance47@gmail.com	307 660 0867	64	Yes	Yes	Campbell
249	6/3/24 16:51:45	6/3/24 16:52:21	anonymous	Lauren Pfenning	Lapfenning1989@gmail.com	307-299-0501	34	Yes	Yes	Campbell
250	6/3/24 16:54:55	6/3/24 16:55:52	anonymous	Mark Starr	mark_starr@aol.com	307-299-1869	59	Yes	Yes	Campbell
251	6/3/24 16:56:34	6/3/24 16:57:03	anonymous	Brandy Elder	bjags1@gmail.com	3076603461	46	Yes	Yes	Campbell County
252	6/3/24 16:57:17	6/3/24 16:58:03	anonymous	Harmony Smithhart	harmee23@yahoo.com	307-228-3935	45	Yes	Yes	Campbell
253	6/3/24 16:59:12	6/3/24 16:59:52	anonymous	Blake	Bculey2@gmail.com	3076969861	22	Yes	Yes	Campbell
254	6/3/24 17:00:07	6/3/24 17:01:07	anonymous	Gary Sams	gary.sams@campbellcountywy.gov	307-299-4304	58	Yes	Yes	Campbell
255	6/3/24 17:00:56	6/3/24 17:03:08	anonymous	Christy Grosz	christyann75@yahoo.com	307-660-4690	48	Yes	Yes	Campbell
256	6/3/24 17:07:12	6/3/24 17:07:37	anonymous	Heather Aghbashian	heraer1315@gmail.com	3076894569	34	Yes	Yes	Campbell
257	6/3/24 17:09:52	6/3/24 17:10:40	anonymous	Heather Harvey	heatherharvey@hotmail.com	307-660-0901	54	Yes	Yes	Campbell
258	6/3/24 17:10:43	6/3/24 17:11:37	anonymous	Nolene Wright	nlwright@vcn.com	3079391261	57	Yes	Yes	Campbell
259	6/3/24 17:11:35	6/3/24 17:11:59	anonymous	Christopher Stanton	clstanton216@gmail.com	3076220776	40	Yes	Yes	Campbell County
260	6/3/24 17:12:31	6/3/24 17:13:27	anonymous	Brandi Harlow	brandibeech@yahoo.com	406-945-3620	47	Yes	Yes	Campbell
261	6/3/24 17:29:27	6/3/24 17:29:57	anonymous	Sarah Thraikill	sarah.thraikill@campbellcountywy.gov	3076898961	42	Yes	Yes	Campbell
262	6/3/24 17:30:32	6/3/24 17:31:38	anonymous	Kelleen Edwards	Kelleenedwards@gmail.com	3076701177	45	Yes	Yes	Campbell
263	6/3/24 17:32:55	6/3/24 17:33:53	anonymous	Tara konkin			45	No	Yes	Johnson
264	6/3/24 17:36:35	6/3/24 17:37:09	anonymous	Jessica Cates	Cjcates10@gmail.com	3072997173	39	Yes	Yes	Campbell
265	6/3/24 17:37:12	6/3/24 17:37:45	anonymous	Chance Cates	chance.cates10@gmail.com	3072997174	Yes	Yes	Yes	Campbell
266	6/3/24 17:36:55	6/3/24 17:37:48	anonymous	Cody Caldwell	cjaldwell00@gmail.com	3072171948	23	Yes	Yes	Campbell
267	6/3/24 17:43:59	6/3/24 17:45:06	anonymous	Chris Elder	Triplecsr710@gmail.com	3072998766	50	Yes	Yes	Campbell
268	6/3/24 17:46:34	6/3/24 17:47:36	anonymous	Candy wolfe	wolfecandy@gmail.com		73	Yes	Yes	73
269	6/3/24 17:49:16	6/3/24 17:50:01	anonymous	Alvina Letcher	Allie.letcher@gmail.com	913-424-2448	37	Yes	Yes	Campbell
270	6/3/24 17:50:20	6/3/24 17:50:44	anonymous	Taylor Powell	taypow98@gmail.com	3076606861	36	Yes	Yes	Campbell
271	6/3/24 17:50:26	6/3/24 17:51:19	anonymous	Kellen Smith	smith_livestock@hotmail.com	3076801416	33	Yes	Yes	Campbell
272	6/3/24 17:54:01	6/3/24 17:54:36	anonymous	Jerrica Sprague	jerrica79@gmail.com	3076605183	45	Yes	Yes	Campbell
273	6/3/24 17:58:31	6/3/24 17:58:56	anonymous	Adam	adamksprague1983@gmail.com	3076960099	4q	No	Yes	Campbell
274	6/3/24 18:02:53	6/3/24 18:03:37	anonymous	Allyson stanton	07allys11@gmail.com	7405061121	35	Yes	Yes	Campbell
275	6/3/24 18:20:41	6/3/24 18:21:29	anonymous	Micky Shober	mick9801@gmail.com	3076803993	73	Yes	Yes	Campbell
276	6/3/24 18:21:35	6/3/24 18:23:10	anonymous	Linda Shober	Attaindesign@gmail.com	3076603993	72	Yes	Yes	Campbell
277	6/3/24 18:25:35	6/3/24 18:26:48	anonymous	Danny Walker	Walkerwellservice@yahoo.com	307 680 4895	47	Yes	Yes	Campbell
278	6/3/24 18:26:24	6/3/24 18:27:19	anonymous	Zach dunham	zdunham@bresnan.net	307-682-4008	48	Yes	Yes	Campbell
279	6/3/24 18:35:25	6/3/24 18:36:32	anonymous	Michelle Leiker	Mleighnd@yahoo.com	307-257-1775	49	Yes	Yes	Campbell
280	6/3/24 18:39:06	6/3/24 18:39:52	anonymous	Debra Zolnoski	dab0124@yahoo.com	6053810633	58	Yes	Yes	Campbell
281	6/3/24 18:48:46	6/3/24 18:49:36	anonymous	Jodi Crago-Wyllie	jodicrago64@gmail.com	307-660-5076	59	Yes	Yes	Campbell
282	6/3/24 18:50:12	6/3/24 18:50:41	anonymous	Kierston Blake	kcblake88@gmail.com	3076960232	35	Yes	Yes	Campbell
283	6/3/24 19:10:09	6/3/24 19:12:00	anonymous	John Wolfe	Bullek32151@gmail.com	307 680 8732	73	Yes	Yes	Campbell
284	6/3/24 16:44:10	6/3/24 19:13:42	anonymous	Joy Brown	brown.solidconcrete@gmail.com	307-696-9998	63	Yes	Yes	Campbell
285	6/3/24 19:18:10	6/3/24 19:19:11	anonymous	Crystal Walker	Dcwalker@collinscom.net	307-680-3108	54	Yes	Yes	Campbell
286	6/3/24 19:20:27	6/3/24 19:21:01	anonymous	Brandon Leair	brandonleair@gmail.com	307-365-1856	33	Yes	Yes	Campbell
287	6/3/24 19:44:07	6/3/24 19:45:25	anonymous	Tausha Edmonds	Tausha_edmonds@campbellcountywy.gov	3076704792	53	Yes	Yes	Campbell County
288	6/3/24 19:47:23	6/3/24 19:47:50	anonymous	Conagher Testerman	conagher9@gmail.com	3077465768	22	No	Yes	Campbell
289	6/3/24 19:58:07	6/3/24 19:59:13	anonymous	Justin & Janet Mader	16938A Hiway 59N	307-686-6456	72 & 71	Yes	Yes	Campbell

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

290	6/3/24 19:59:05	6/3/24 20:05:01	anonymous	Brittany Spillum	byrdhouse98@yahoo.com	307-299-4863	43	Yes	Yes	Campbell Co
291	6/3/24 20:24:04	6/3/24 20:26:10	anonymous	Dawn Rech	rranch@collinscom.net	307-689-7717	54	Yes	Yes	Campbell
292	6/3/24 21:15:09	6/3/24 21:17:00	anonymous	Nancy Mills		307-689-1699		Yes	Yes	Campbell
293	6/3/24 21:23:43	6/3/24 21:24:33	anonymous	Coleen Winterholler	Mikencoleen@gmail.com	3076605925	55	Yes	Yes	Campbell
294	6/3/24 21:23:37	6/3/24 21:25:03	anonymous	Robert Anderson	randerson3806@yahoo.com	3076802285	43	Yes	Yes	Campbell
295	6/3/24 22:21:49	6/3/24 22:23:00	anonymous	Loa Dickinson	loa@rtconnect.net	307-941-1375	71	No	Yes	Weston
296	6/3/24 22:26:55	6/3/24 22:28:19	anonymous	Barbara Petty	barbara.petty14@gmail.com	3077468260	73	No	Yes	Hot Springs
297	6/3/24 22:30:34	6/3/24 22:32:01	anonymous	Dale Petty	pettydale72@gmail.com	3077462317	74	No	Yes	Hot Springs
298	6/3/24 23:07:49	6/3/24 23:08:55	anonymous	Leitha M. Sowder	lsowder@vcn.com	307-680-5340	55	Yes	Yes	Campbell
299	6/3/24 23:15:06	6/3/24 23:16:42	anonymous	Franklin E. Sowder	glsowder@collinscom.net	307-660-5340	65	Yes	Yes	Campbell
300	6/3/24 23:43:04	6/3/24 23:44:34	anonymous	Koleson Geer	Kolesonger12@gmail.com	13072900899	21	Yes	Yes	Campbell
301	6/4/24 4:19:47	6/4/24 4:21:08	anonymous	Ellen j Wendt	ltn.wndt@gmail.com	307 746 8695	61	No	Yes	weston
302	6/4/24 4:33:21	6/4/24 4:34:22	anonymous	Natasha Salcido				Yes	Yes	Campbell
303	6/4/24 4:54:40	6/4/24 4:58:30	anonymous	Tiffani Klausung				Yes	Yes	Campbell County
304	6/4/24 4:58:51	6/4/24 5:00:05	anonymous	Tyler Clannon				Yes	Yes	Campbell County
305	6/4/24 5:00:14	6/4/24 5:00:57	anonymous	Ron Loustau				Yes	Yes	Campbell County
306	6/4/24 5:01:07	6/4/24 5:01:51	anonymous	Summer Klausung				Yes	Yes	Campbell County
307	6/4/24 5:02:23	6/4/24 5:02:58	anonymous	Leah Powell	leahpow74@gmail.com	307-660-6757	49	Yes	Yes	Campbell
308	6/4/24 5:12:36	6/4/24 5:14:30	anonymous	Raymond arbach	Ray_arbach@yahoo.com	3076800441	57	Yes	Yes	Campbell
309	6/4/24 5:57:50	6/4/24 5:58:37	anonymous	Linda Grose	Linda.Grose@campbellcountywy.gov	307-689-3984	63	Yes	Yes	campbell
310	6/4/24 6:14:40	6/4/24 6:15:37	anonymous	Jack Laakso	bhfjack@hotmail.com	3076967317	69	Yes	Yes	Campbell
311	6/4/24 6:18:28	6/4/24 6:19:50	anonymous	Kevin Geis		307-682-6451	52	Yes	Yes	Campbell
312	6/4/24 6:40:38	6/4/24 6:41:56	anonymous	Karen Huggett	Khugg20204@outlook.com	3076702585	57	Yes	Yes	Campbell
313	6/4/24 6:58:37	6/4/24 7:00:13	anonymous	Neena Bell	Evans.neena@gmail.com	2093807592	60	Yes	Yes	Campbell
314	6/4/24 7:01:39	6/4/24 7:02:10	anonymous	Kelly McArtor				Yes	Yes	Campbell
315	6/4/24 7:04:37	6/4/24 7:05:29	anonymous	Krisene Watson	krisene.watson@gmail.com	208-995-3163	59	Yes	Yes	Campbell
316	6/4/24 6:57:43	6/4/24 7:28:22	anonymous	Bill Beastrom	billbeastrom@gmail.com	3079412058	53	No	Yes	Weston
317	6/4/24 7:28:13	6/4/24 7:29:26	anonymous	Donald S. Bellamy	donbell4567@gmail.com	307-949-0226	31	Yes	Yes	Campbell
318	6/4/24 7:30:09	6/4/24 7:31:36	anonymous	Lisa Wynia				No	Yes	Weston
319	6/4/24 7:39:48	6/4/24 7:40:28	anonymous	Amber Warren	Ambermichelle0918.aw@gmail.com	(704)349-2041	32	No	Yes	Campbell
320	6/4/24 7:47:25	6/4/24 7:49:35	anonymous	Troy Clements			56	Yes	Yes	Campbell County Wyoming
321	6/4/24 7:52:11	6/4/24 7:53:29	anonymous	Michele Bau	Michelebau@live.com	3074652325	48	No	Yes	Weston
322	6/4/24 8:05:37	6/4/24 8:06:15	anonymous	Courtney Leair	c.leair0524@gmail.com	3072999089	35	Yes	Yes	Campbell
323	6/4/24 8:03:12	6/4/24 8:07:54	anonymous	ALICIA GILLILAND	almay187@yahoo.com	307-687-6265	48	Yes	Yes	CAMPBELL
324	6/4/24 8:08:58	6/4/24 8:09:37	anonymous	Michaela Cina	michaelacina@yahoo.com	3076603872	42	Yes	Yes	Campbell
325	6/4/24 8:09:13	6/4/24 8:10:54	anonymous	Erin Slattery	eslattery77@yahoo.com	307-680-4558	47	Yes	Yes	Campbell
326	6/4/24 8:09:24	6/4/24 8:11:25	anonymous	Marcy Owens	marcy.owens@campbellcountywy.gov	307-687-6308	54	Yes	Yes	Campbell
327	6/4/24 8:12:17	6/4/24 8:12:49	anonymous	Heather Rodriguez	celestialstew13@icloud.com	3076604259	53	Yes	Yes	Campbell
328	6/4/24 8:14:21	6/4/24 8:16:05	anonymous	Dottie White-Marcus	dottiewhite@rocketmail.com	307-689-2519	54	Yes	Yes	Campbell
329	6/4/24 8:17:52	6/4/24 8:19:04	anonymous	pat johnson	pcjohnson@bresnan.net	307 660 7334	76	Yes	Yes	Campbell
330	6/4/24 8:17:15	6/4/24 8:19:53	anonymous	Sena Piekkola	senal1a@hotmail.com	307-391-1306	43	Yes	Yes	Campbell
331	6/4/24 8:18:28	6/4/24 8:20:10	anonymous	Becca				Yes	Yes	Campbell
332	6/4/24 8:24:56	6/4/24 8:26:09	anonymous	Gary Owens	gowens300@gmail.com	307-660-1506	56	Yes	Yes	Campbell
333	6/4/24 8:40:01	6/4/24 8:40:40	anonymous	Natalie Terrell	terrells@collinscom.net	307-680-0737	45	Yes	Yes	Campbell
334	6/4/24 8:41:01	6/4/24 8:41:50	anonymous	Tonja Cale				Yes	Yes	Campbell
335	6/4/24 8:45:27	6/4/24 8:46:23	anonymous	Mike Winterholler	mtnmike67@outlook.com	307-680-7644	57	Yes	Yes	Campbell
336	6/4/24 8:50:14	6/4/24 8:50:54	anonymous	Mckenzie			29	No	No	Weld - Colorado
337	6/4/24 8:59:56	6/4/24 9:01:05	anonymous	Teresa Wilcox	twilcox177@gmail.com	307-680-3078	56	Yes	Yes	Campbell
338	6/4/24 9:01:12	6/4/24 9:01:55	anonymous	Steve Wilcox	sawtah302@gmail.com	307-660-6215	59	Yes	Yes	Campbell
339	6/4/24 9:17:52	6/4/24 9:18:34	anonymous	Sue Cosgrove	sue.cosgrove@hotmail.com	817-637-6167	55	Yes	Yes	Campbell
340	6/4/24 9:33:46	6/4/24 9:34:38	anonymous	Debra Johnson	debj@vcn.com	307-680-2300	61	Yes	Yes	Campbell
341	6/4/24 9:34:53	6/4/24 9:35:25	anonymous	Greg Johnson	debj@vcn.com	3076823525	63	Yes	Yes	Campbell
342	6/4/24 9:46:17	6/4/24 9:49:06	anonymous	Gary Piper	wyomingpiper@hotmail.com	3074652301	72	No	Yes	Weston
343	6/4/24 10:27:01	6/4/24 10:28:05	anonymous	Shirley Wright	shirleywright@gmail.com	3076703541	51	Yes	Yes	Campbell
344	6/4/24 10:30:13	6/4/24 10:31:01	anonymous	Linda Heath	sedge@wyoming.com	307 640 3454	60 +	No	Yes	Laramie
345	6/4/24 11:09:11	6/4/24 11:10:30	anonymous	Jannelle Mankin Mills	jem3613@gmail.com	6052775030	57	Yes	Yes	Campbell
346	6/4/24 11:16:48	6/4/24 11:17:40	anonymous	Kristin Young	klyoung240@gmail.com	307-262-7656	40	Yes	Yes	Campbell
347	6/4/24 11:17:06	6/4/24 11:18:08	anonymous	Susan A Goff	16 Emily Ct., Gillette, WY 82718	(517) 303-9204	59	Yes	Yes	Campbell County
348	6/4/24 11:29:41	6/4/24 11:30:15	anonymous	Hailey Collins	haileymariecollins02@gmail.com	2543153322	21	Yes	Yes	Campbell County
349	6/4/24 12:02:28	6/4/24 12:03:30	anonymous	Matthew Olsen	matthew.olsen@campbellcountywy.gov			Yes	Yes	Campbell
350	6/4/24 12:00:31	6/4/24 12:04:04	anonymous	Brad Septka	bradseptka@yahoo.com	307-689-8535	62	Yes	Yes	Campbell County
351	6/4/24 12:14:24	6/4/24 12:14:56	anonymous	Heidi Herrmann	hl_under2@hotmail.com	3076801715	42	Yes	Yes	Campbell
352	6/4/24 12:19:17	6/4/24 12:19:44	anonymous	Kaylee Humphries	Kayleek33@gmail.com	3078405879	29	Yes	Yes	Campbell
353	6/4/24 12:24:59	6/4/24 12:25:46	anonymous	Katrina Sisson	sissontrena@yahoo.com	307-660-8362	50	Yes	Yes	Campbell
354	6/4/24 12:25:53	6/4/24 12:26:27	anonymous	Dwayne Sisson	dsisson@intrq.com	307-660-8362	62	Yes	Yes	Campbell
355	6/4/24 12:28:08	6/4/24 12:28:55	anonymous	Heather Wiechert	Hvickers84@outlook.com	3076898388	39	No	Yes	Campbell
356	6/4/24 12:29:21	6/4/24 12:29:49	anonymous	Chris Roemmich	chris@wrightwyoming.com	3072992434	38	Yes	Yes	Campbell
357	6/4/24 12:29:02	6/4/24 12:29:58	anonymous	Kameron Wiechert	Kameronwiechert@yahoo.com	3076899858	37	Yes	Yes	Campbell
358	6/4/24 12:33:06	6/4/24 12:33:36	anonymous	Marti Mehling	Harnessmarti1@gmail.com		30	Yes	Yes	Campbell
359	6/4/24 12:33:39	6/4/24 12:33:57	anonymous	Martha Larson				Yes	Yes	Campbell
360	6/4/24 12:34:30	6/4/24 12:35:40	anonymous	David Olsen	dnsolsen@hotmail.com	307-660-1733	79	Yes	Yes	Campbell
361	6/4/24 12:41:43	6/4/24 12:42:25	anonymous	Samantha Chafee	samantha.chafee@campbellcountywy.gov	307-696-5356	24	Yes	Yes	Campbell
362	6/4/24 13:13:49	6/4/24 13:14:39	anonymous	Dana Urman	danaurman44@hotmail.com	307-680-4649	61	Yes	Yes	Campbell



**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

363	6/4/24 13:15:55	6/4/24 13:17:32	anonymous	Susan Shippy	lsbar@vcn.com	307-680-0893	76	Yes	Yes	Campbell
364	6/4/24 13:24:22	6/4/24 13:25:28	anonymous	Steve Urman	steve.john@yahoo.com	307-680-7782	64	Yes	Yes	Campbell
365	6/4/24 13:49:46	6/4/24 13:50:44	anonymous	Shalayna Hoekstra	shalayna.k.hoekstra@gmail.com	3072998512	28	No	No	Denver
366	6/4/24 14:28:36	6/4/24 14:29:25	anonymous	Elizabeth Gonzalez	ebc4crew@yahoo.com	307-299-4744	47	Yes	Yes	Campbell
367	6/4/24 14:29:27	6/4/24 14:30:06	anonymous	Dustin Gonzalez	dgonzalez302@gmail.com	307-256-0835	42	Yes	Yes	Campbell
368	6/4/24 14:36:32	6/4/24 14:37:03	anonymous	Mary A Baeza	Baezabunch2013@outlook.com	605-209-6439	39	Yes	Yes	Campbell
369	6/4/24 14:44:07	6/4/24 14:44:39	anonymous	tracy mathews	tracym@gillettechamber.com	307.687.7616	54	Yes	Yes	Campbell
370	6/4/24 14:43:53	6/4/24 14:45:02	anonymous	Ashton Eichenberger	Ashtonpeterson1995@gmail.com	3072996466	29	Yes	Yes	Campbell county
371	6/4/24 14:42:53	6/4/24 14:45:12	anonymous	Shirley Powers	spowers224@gmail.com	307-689-2334	69	Yes	Yes	Campbell
372	6/4/24 14:47:54	6/4/24 14:48:27	anonymous	Angela Rae Geis	geisclan4@gmail.com	307-689-5907	38	Yes	Yes	Campbell
373	6/4/24 14:48:17	6/4/24 14:50:17	anonymous	Jared Green	forms.office.com.mb36p@passmail.net	3076605610	42	No	Yes	Campbell
374	6/4/24 14:50:04	6/4/24 14:51:06	anonymous	Owen M. Sweeney, Jr.	owen@landerchamber.org	307-332-3892	55	No	No	Fremont
375	6/4/24 14:52:09	6/4/24 14:53:16	anonymous	Melissa	Melissarose109@hotmail.com		32	Yes	Yes	Campbell
376	6/4/24 14:53:09	6/4/24 14:54:14	anonymous	JENNIFER L WILLIAMS	JWILLIAMS@BIGHORNTIRE.NET	307-660-1301	45	Yes	Yes	CAMPBELL
377	6/4/24 14:53:22	6/4/24 14:54:36	anonymous	Cathy Schroeder	1304cschroeder@gmail.com	3072579096	62	Yes	Yes	Campbell County
378	6/4/24 14:54:32	6/4/24 14:56:12	anonymous	Aaron MacKearney	MacKearneyb@gmail.com	3076809389	52	Yes	Yes	Campbell
379	6/4/24 15:04:02	6/4/24 15:04:32	anonymous	Angela Williams	ang@vcn.com	307-660-5441	53	Yes	Yes	Campbell
380	6/4/24 15:04:39	6/4/24 15:05:07	anonymous	Miles Williams	mileswilliams@vcn.com	307-680-0071	57	Yes	Yes	Campbell
381	6/4/24 15:07:04	6/4/24 15:08:21	anonymous	Tracy Jones	Cuttingedge307@gmail.com	3077465976	59	No	Yes	Weston
382	6/4/24 15:12:11	6/4/24 15:13:51	anonymous	Katelyn Wilson			29	Yes	Yes	Campbell
383	6/4/24 15:13:21	6/4/24 15:17:07	anonymous	Amy Boyer	aboyer@nelbro.com	307-687-0761	59	Yes	Yes	Campbell
384	6/4/24 15:17:10	6/4/24 15:18:29	anonymous	Kristen Verhelst	mkverhelst@gmail.com	406-670-1591	47	Yes	Yes	Campbell
385	6/4/24 15:19:07	6/4/24 15:21:03	anonymous	Timothy Young	tdykingkid@hotmail.com	3076960697	45	Yes	Yes	Campbell
386	6/4/24 15:21:20	6/4/24 15:22:21	anonymous	Kevin Hunter	khunter@nelbro.com	3076604522	52	No	Yes	Crook
387	6/4/24 15:26:18	6/4/24 15:27:42	anonymous	Timothy Jess Martin	martintj2011@gmail.com	307-256-9502	62	Yes	Yes	Campbell
388	6/4/24 15:45:36	6/4/24 15:46:21	anonymous	Dustine Hennigar	dustinepoppleton92@gmail.com	3072567129	31	Yes	Yes	Campbell
389	6/4/24 15:50:37	6/4/24 15:50:56	anonymous	Tiffany Roesner				No	Yes	Campbell
390	6/4/24 15:50:35	6/4/24 15:52:40	anonymous	Brian Jensen	Brian.jensen@talgrass.com		42	Yes	Yes	Campbell
391	6/4/24 15:58:15	6/4/24 15:59:39	anonymous	Joli Carr	geowife@gmail.com	307-660-6493	48	Yes	Yes	Campbell
392	6/4/24 15:58:18	6/4/24 16:01:22	anonymous	Brittney Nelson	brittney.nelson812@gmail.com		31	No	Yes	Campbell
393	6/4/24 16:00:44	6/4/24 16:01:38	anonymous	Jared Peterson	Jrad620@gmail.com	(605) 877-5702	27	Yes	Yes	Campbell
394	6/4/24 16:00:43	6/4/24 16:02:41	anonymous	Kimi Balfanz	kimibalfanz@gmail.com	307-660-4724	56	Yes	Yes	Campbell
395	6/4/24 16:05:10	6/4/24 16:05:58	anonymous	Tamie Dowding	tamiewesley@gmail.com	307-746-2818	52	No	Yes	Weston
396	6/4/24 16:07:03	6/4/24 16:07:44	anonymous	Erin Beck	erinbeck610@gmail.com	3076606475	29	Yes	Yes	Campbell County
397	6/4/24 16:08:58	6/4/24 16:09:45	anonymous	Scott Blazek	sblazek@nelbro.com	3076604513	55	Yes	Yes	campbell
398	6/4/24 16:14:23	6/4/24 16:15:29	anonymous	Matt Shahan	matt.shahan@gmail.com	4063967468	40	Yes	Yes	Campbell
399	6/4/24 16:17:59	6/4/24 16:19:42	anonymous	Tina Hoebellheinrich	tina@casperwyoming.org	406.231.2263	54	No	Yes	Natrona
400	6/4/24 16:21:24	6/4/24 16:21:40	anonymous	Jenna Wiard			29	Yes	Yes	Campbell
401	6/4/24 16:25:01	6/4/24 16:27:42	anonymous	Christie Thoreson	christiethoreson@gmail.com	360-286-6977	59	Yes	Yes	Campbell
402	6/4/24 16:40:50	6/4/24 16:42:09	anonymous	Vanessa Griggs	vgriggs07@gmail.com	9898540462	35	Yes	Yes	Campbell
403	6/4/24 16:41:29	6/4/24 16:42:36	anonymous	Rick Lee	ricklee@rockspringschamber.com	307-3623771	57	No	Yes	Sweetwater County
404	6/4/24 16:43:17	6/4/24 16:44:09	anonymous	James Griggs	Jmg04e@gmail.com	8503395723	38	Yes	Yes	Campbell
405	6/4/24 16:45:24	6/4/24 16:46:20	anonymous	Mandy Jersy	mandyjerry@vcn.com	3076290263	46	No	Yes	Weston
406	6/4/24 16:47:55	6/4/24 16:48:24	anonymous	J.T. Larson	jt.larson@wyoleg.gov	3073890162	23	No	Yes	Sweetwater
407	6/4/24 16:51:29	6/4/24 16:55:24	anonymous	Stephen Grose	fullthrotteltrucking@hotmail.com	307-689-5576	64	Yes	Yes	Campbell
408	6/4/24 16:58:21	6/4/24 17:00:30	anonymous	Megan Diede	Megdd24@hotmail.com	6053814492	37	Yes	Yes	Campbell country
409	6/4/24 17:00:48	6/4/24 17:01:20	anonymous	Lee Diede	Studltd16@gmail.com	6053814449	38	Yes	Yes	Campbell
410	6/4/24 17:02:28	6/4/24 17:03:28	anonymous	Will			29	Yes	Yes	Campbell
411	6/4/24 17:05:36	6/4/24 17:06:27	anonymous	Jarom Bundy	Jarombundy@gmail.com	3076605373	28	Yes	Yes	Campbell
412	6/4/24 17:06:30	6/4/24 17:07:16	anonymous	Tristen Jackson	Tristen.jackson@yahoo.com	8014408828	25	Yes	Yes	Campbell
413	6/4/24 17:06:35	6/4/24 17:08:13	anonymous	Roger Hefner	rogerhefner@gmail.com	3076802763	72	Yes	Yes	Campbell
414	6/4/24 17:08:18	6/4/24 17:09:30	anonymous	Lynda Hefner	rogerhefner@gmail.com	307-680-3091	69	No	Yes	Campbell
415	6/4/24 17:15:01	6/4/24 17:15:40	anonymous	Shawna Litzinger	slpraeuner@hotmail.com	3076291322	35	No	Yes	Converse
416	6/4/24 17:19:30	6/4/24 17:21:18	anonymous	Kim Essen	kessen@prcw.com	3076800378	80	Yes	Yes	Campbell
417	6/4/24 17:07:22	6/4/24 17:23:33	anonymous	Virginia Rice	virginiarice62@gmail.com	3076804308	80	No	Yes	Campbell county
418	6/4/24 17:31:52	6/4/24 17:32:27	anonymous	Raelyn Chavez	foldar4@yahoo.com		36	Yes	Yes	Campbell
419	6/4/24 17:48:45	6/4/24 17:49:49	anonymous	Ann Park	annief_2004@yahoo.com	3072998415	37	Yes	Yes	Campbell
420	6/4/24 17:54:29	6/4/24 17:55:23	anonymous	Kathy Garland	Kathy@mgmenterprises.net	3076892640	64	Yes	Yes	Campbell
421	6/4/24 17:56:18	6/4/24 17:57:14	anonymous	Aaron Hall	Cloudpeakwy@gmail.com		42	Yes	Yes	Campbell
422	6/4/24 18:11:21	6/4/24 18:12:43	anonymous	Amber Hinkle	jahb5@icloud.com	3078568607	43	No	Yes	Fremont
423	6/4/24 18:14:46	6/4/24 18:15:45	anonymous	Tina Wigger	Twigger3@charter.net	307685038q	53	Yes	Yes	Campbell
424	6/4/24 18:15:51	6/4/24 18:16:37	anonymous	Kendall Wigger	kendallwigger@gmail.com	3076859381	59	Yes	Yes	Campbell
425	6/4/24 18:38:52	6/4/24 18:40:39	anonymous	Jim Lyon Jr.	Sheridanjh@yahoo.com	(307) 763-2033	60	Yes	Yes	Campbell
426	6/4/24 18:42:09	6/4/24 18:43:11	anonymous	Galen Bortz	gabortz53@hotmail.com	307-660-6592	70	No	Yes	Crook
427	6/4/24 19:34:12	6/4/24 19:35:00	anonymous	Mark Cowan	cowanm@sweetwatercountyywy.gov	3073894480	49	No	Yes	Sweetwater
428	6/4/24 19:43:09	6/4/24 19:44:29	anonymous	Dana L Miller	danamiller307@gmail.com	307-299-3669	55	Yes	Yes	Campbell
429	6/4/24 20:07:58	6/4/24 20:09:05	anonymous	Ryan Gross				Yes	Yes	Campbell
430	6/4/24 20:16:00	6/4/24 20:16:41	anonymous	Natishia	natishia_al_simons@hotmail.com	3072902732	28	Yes	Yes	Campbell
431	6/4/24 20:18:26	6/4/24 20:19:16	anonymous	Carol Herrmann	C_herrmann@live.com	3076895070	55	Yes	Yes	Campbell
432	6/4/24 20:32:53	6/4/24 20:34:34	anonymous	Ken San Agustín	Osmdad@msn.com	307 257 2105	72	Yes	Yes	Campbell
433	6/4/24 20:53:46	6/4/24 20:54:29	anonymous	Alyssa Patterson	aultbraght@yahoo.com	3076700459	37	Yes	Yes	Campbell
434	6/4/24 21:40:47	6/4/24 21:41:53	anonymous	Steve Laakso	steve@vcn.com	3076804956	47	Yes	Yes	Campbell
435	6/4/24 22:38:52	6/4/24 22:40:44	anonymous	Jeff Carter	ropy@collinscom.net	(307)660-5837	47	Yes	Yes	Campbell

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

436	6/4/24 23:20:30	6/4/24 23:22:55	anonymous	Dave Dorson	ddorson@bresnan.net	3076806789	66	Yes	Yes	Campbell
437	6/5/24 5:54:40	6/5/24 5:55:50	anonymous	Meg Togersen	Mustruck@vcn.com	307-350-0868	62	No	Yes	Sweetwater
438	6/5/24 6:02:11	6/5/24 6:02:57	anonymous	Cody Herrmann	Cherrmann01@gmail.com	3073593402	35	Yes	Yes	Campbell
439	6/5/24 6:24:13	6/5/24 6:25:02	anonymous	Kelly Brink	ksbrink_4@msn.com	3078719516	54	No	Yes	Sweetwater
440	6/5/24 6:28:16	6/5/24 6:30:54	anonymous	Marleen Cooper	marleencooper@outlook.com	307-689-1930	67	Yes	Yes	Campbell
441	6/5/24 6:39:13	6/5/24 6:39:53	anonymous	Carrie Patton	cpatton9808@gmail.com	3076607150	48	Yes	Yes	Campbell County
442	6/5/24 6:40:44	6/5/24 6:42:14	anonymous	Stacy Taylor	jesiegirl1018@gmail.com	3076601826	45	Yes	Yes	Campbell
443	6/5/24 6:41:20	6/5/24 6:43:36	anonymous	Ralph Kingan	Rkingan@vcn.com		71	Yes	Yes	Campbell
444	6/5/24 7:05:39	6/5/24 7:07:14	anonymous	Patrick Smalley	krondys@gmail.com		43	Yes	Yes	Campbell
445	6/5/24 7:13:50	6/5/24 7:14:56	anonymous	Chrisondra Kern				Yes	Yes	Campbell
446	6/5/24 7:42:19	6/5/24 7:43:06	anonymous	Levi Sloan	ltsloan@gmail.com	3076700605	48	Yes	Yes	Campbell County
447	6/5/24 7:43:06	6/5/24 7:44:33	anonymous	Donald Cooper	doncooper@q.com	13076891931	65	Yes	Yes	Campbell County
448	6/5/24 7:57:10	6/5/24 8:00:48	anonymous	Cassi Kelley	ckelley82718@yahoo.com	3076608128		Yes	Yes	Campbell
449	6/5/24 8:04:12	6/5/24 8:05:19	anonymous	Shanda Shatzer	shanda2027@yahoo.com	307-687-1717	51	Yes	Yes	Campbell County
450	6/5/24 8:46:25	6/5/24 8:47:42	anonymous	Scott Hielscher	sahielscher@gmail.com	970-520-3611	43	No	No	Phillips
451	6/5/24 8:47:50	6/5/24 8:48:21	anonymous	Meghan Young	megrtrigg@gmail.com	719-220-4434	32	Yes	Yes	Campbell
452	6/5/24 8:50:43	6/5/24 8:51:31	anonymous	Rose Lasse	kungfuwidow@gmail.com	307-689-6058	60	Yes	Yes	Campbell
453	6/5/24 8:52:11	6/5/24 8:53:23	anonymous	Leigh Lasse	gillettedojo@gmail.com	307-689-1918	54	Yes	Yes	Campbell
454	6/5/24 9:13:06	6/5/24 9:13:51	anonymous	Sheila Slocum	sheslocum@outlook.com	3072991976	39	Yes	Yes	Campbell
455	6/5/24 9:13:29	6/5/24 9:14:17	anonymous	Scott Appley	sappley@msn.com	3076894491	59	Yes	Yes	Campbell
456	6/5/24 9:32:42	6/5/24 9:33:49	anonymous	Luana Ruff	lruff@collinscom.net	307-680-3305	57	Yes	Yes	Campbell
457	6/5/24 9:35:42	6/5/24 9:38:04	anonymous	Michael E. Curtis	mc Curtis@nelbro.com	256 347-3405	57	Yes	Yes	Campbell County, WY
458	6/5/24 9:40:02	6/5/24 9:41:25	anonymous	Tanya Reynolds	treynoldsandles@yahoo.com	307-680-6270	63	Yes	Yes	Campbell
459	6/5/24 10:03:50	6/5/24 10:04:23	anonymous	Erica Mund			33	No	Yes	Crook
460	6/5/24 10:03:27	6/5/24 10:04:31	anonymous	Brandon McArtor	brandonglitt@aol.com	307-567-2648	47	Yes	Yes	Campbell County
461	6/5/24 10:04:28	6/5/24 10:04:38	anonymous	Shane Mund			35	No	Yes	Crook
462	6/5/24 10:13:04	6/5/24 10:14:43	anonymous	Hector E Marcyayda	Hector.Marcyayda@gmail.com		62	Yes	Yes	Campbell
463	6/5/24 10:31:52	6/5/24 10:32:57	anonymous	Del Shelatad is a Pedro	Delshelatadlovesties@gmail.com	3076666666	45	Yes	Yes	Campbell
464	6/5/24 10:48:22	6/5/24 10:48:57	anonymous	Terra Norton	tnorton6@vcn.com	3076600830	44	Yes	Yes	Campbell
465	6/5/24 10:55:09	6/5/24 10:55:55	anonymous	Cooper DeBusk	cdd_112@outlook.com	3076608993	36	Yes	Yes	Campbell
466	6/5/24 11:04:26	6/5/24 11:05:02	anonymous	Kelly Peters	813 Beech St	3076822209	52	Yes	Yes	Campbell
467	6/5/24 11:05:34	6/5/24 11:06:06	anonymous	Tamara Peters	kellyandtamara@gmail.com	3076822209	52	Yes	Yes	Campbell
468	6/5/24 11:39:54	6/5/24 11:41:00	anonymous	shawn dorr	shawndorr@hotmail.com	3076866364	63	Yes	Yes	Campbell
469	6/5/24 11:53:27	6/5/24 11:54:27	anonymous	Mindi Roderick	Msuestory76@gmail.com	3076227384	47	Yes	Yes	Campbell
470	6/5/24 11:56:27	6/5/24 11:57:35	anonymous	Sandra Olsen	sndolsen@hotmail.com	307-660-0349	72	Yes	Yes	Campbell
471	6/5/24 11:57:13	6/5/24 11:59:00	anonymous	Charlene Weisser			39	Yes	Yes	Campbell
472	6/5/24 12:18:30	6/5/24 12:19:00	anonymous	Anne Fleck	anniefleck16@yahoo.com	2533079927	28	Yes	Yes	Campbell
473	6/5/24 12:32:54	6/5/24 12:34:01	anonymous	Laura Patterson	lptrns0@gmail.com	307-670-4261	42	Yes	Yes	Campbell
474	6/5/24 12:51:05	6/5/24 12:52:04	anonymous	Max Mickelson	max_mickelson@rswy.net	3073899169	48	No	Yes	Sweetwater
475	6/5/24 13:02:02	6/5/24 13:05:09	anonymous	Wyoming Farm Bureau	Fkarpenter@wyfb.org	307-721-7728		No	Yes	membership is throughout the state, in most counties
476	6/5/24 13:04:45	6/5/24 13:06:06	anonymous	William J. Hart, Jr.	trshart@msn.com	307-689-0855	64	Yes	Yes	Campbell
477	6/5/24 13:07:07	6/5/24 13:07:43	anonymous	Shelby Cooper	shelby.atwood@outlook.com		30	Yes	Yes	Campbell
478	6/5/24 13:20:55	6/5/24 13:21:49	anonymous	Jim Williamson	williamson83647@yahoo.com	307-689-8115	64	Yes	Yes	Campbell
479	6/5/24 13:43:37	6/5/24 13:45:12	anonymous	Jeanine M. Stabnow	mustlovelmets2@aol.com	307-682-2561	68	Yes	Yes	Campbell
480	6/5/24 13:45:20	6/5/24 13:46:40	anonymous	Leland P. Stabnow	ljmotorrepair@yahoo.com	307-682-2561	72	Yes	Yes	Campbell
481	6/5/24 13:46:25	6/5/24 13:47:10	anonymous	Amy Clemetson				Yes	Yes	Campbell
482	6/5/24 13:47:38	6/5/24 13:48:08	anonymous	Daniel Fraleigh	fraleighd81@me.com	9049624975	43	Yes	Yes	Campbell
483	6/5/24 13:50:14	6/5/24 13:50:54	anonymous	Melissia Kershner	m.kershner2@gmail.com	307-660-3389	61	Yes	Yes	Campbell
484	6/5/24 14:07:08	6/5/24 14:08:26	anonymous	Leanne Correll	leannecorrell@gmail.com	307-920-1200	61	No	Yes	Hot Springs
485	6/5/24 14:15:37	6/5/24 14:17:37	anonymous	Ry Muzzarelli	muzzilla@gmail.com		47	Yes	Yes	Campbell County
486	6/5/24 14:36:16	6/5/24 14:37:26	anonymous	Jessica Bagnarello	jess.bagnarello@gmail.com	307-660-6720	44	Yes	Yes	Campbell
487	6/5/24 15:02:22	6/5/24 15:03:02	anonymous	Jennifer Orozco	orozcojenn78@gmail.com	307-680-7443	46	Yes	Yes	Campbell
488	6/5/24 15:04:38	6/5/24 15:05:10	anonymous	Randy Langdon	randl@vcn.com	307-660-8060	70	Yes	Yes	Campbell
489	6/5/24 15:07:41	6/5/24 15:08:15	anonymous	Leslie M Arno	arnoleslie@hotmail.com	3077524463	53	No	Yes	Sheridan
490	6/5/24 15:16:00	6/5/24 15:17:45	anonymous	Rick EISCHIED	Rick@mtnmud.com	307-660-6248	70	Yes	Yes	Campbell
491	6/5/24 15:24:17	6/5/24 15:25:35	anonymous	Bonnita Rae Kovar	bonners53@gmail.com	3076702534	56	Yes	Yes	CAMPBELL
492	6/5/24 15:55:02	6/5/24 15:56:52	anonymous	Daniel Maul	danmaul2@gmail.com	307-682-2278	45	Yes	Yes	Campbell
493	6/5/24 16:03:13	6/5/24 16:05:36	anonymous	James H. Cassidy	jameshc1953@gmail.com	307-689-2374	71	Yes	Yes	Campbell
494	6/5/24 16:12:26	6/5/24 16:13:16	anonymous	Marvin Davies	mail4marv-1@yahoo.com	3076890054	55	Yes	Yes	Campbell
495	6/5/24 17:36:44	6/5/24 17:37:31	anonymous	Erica Wood	loveudove@hotmail.com	307-660-1981	42	No	Yes	Crook
496	6/5/24 18:05:01	6/5/24 18:07:04	anonymous	Carla	carldi2013@yahoo.com	307-487-0529	41	Yes	Yes	Campbell county
497	6/5/24 18:39:25	6/5/24 18:40:08	anonymous	Tyler Miller	tyler.miller@earthwork.us.com	307-682-4346	53	Yes	Yes	Campbell
498	6/5/24 18:48:30	6/5/24 18:50:19	anonymous	Peter E Fraleigh	pefraleigh54@yahoo.com	8458676262	69	No	No	Marion County, Florida
499	6/5/24 19:10:26	6/5/24 19:11:07	anonymous	Tony Holden	tjholden@bresnan.net	3076805532	62	Yes	Yes	Campbell
500	6/5/24 19:11:38	6/5/24 19:18:15	anonymous	Oliver Rice		307 299 1793	Be 80 on 07/07/1944	Yes	Yes	Campbell
501	6/5/24 19:23:42	6/5/24 19:25:27	anonymous	Sid Sandstrom	sandstrom71ss@gmail.com	307-299-1334	36	Yes	Yes	Campbell
502	6/5/24 19:29:46	6/5/24 19:30:33	anonymous	Billy Lawson	Budlawson72@yahoo.com	6233099220	46	Yes	Yes	Campbell
503	6/5/24 19:48:32	6/5/24 19:48:57	anonymous	Chris Baumann	cbau934@yahoo.com	3076805965	41	No	Yes	Park
504	6/5/24 19:56:06	6/5/24 19:58:15	anonymous	Rachael Knust				Yes	Yes	Campbell
505	6/5/24 21:01:25	6/5/24 21:03:47	anonymous	Aaron jessen	ajessen@wyomingcat.com	3076804859	47	Yes	Yes	Campbell
506	6/5/24 21:18:41	6/5/24 21:19:29	anonymous	Cyndie Stees	Cpstees@bresnan.net	3076871125	65	Yes	Yes	Campbell
507	6/5/24 21:24:31	6/5/24 21:30:31	anonymous	Mitchell Skogen	rh400dirt@bresnan.net	307 680 3382	69	Yes	Yes	Campbell County

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

508	6/5/24 22:13:07	6/5/24 22:14:29	anonymous	Jerilee Schliske	gschliske@gmail.com	3076808222	58	Yes	Yes	Campbell
509	6/5/24 22:15:36	6/5/24 22:16:31	anonymous	Greg Schliske	gschliske@gmail.com	3076892234	65	Yes	Yes	Campbell
510	6/5/24 22:22:55	6/5/24 22:25:02	anonymous	John C.Cook	jccook47@yahoo.com	406 749 0025	77	Yes	Yes	Campbell
511	6/5/24 22:25:28	6/5/24 22:27:41	anonymous	Penni L.Berg	pberg49@yahoo.com	4067495504	74	Yes	Yes	Campbell
512	6/6/24 1:29:10	6/6/24 1:31:04	anonymous	Rollo Williams	rollowilliams40@gmail.com	6822005	83	Yes	Yes	Campbell County
513	6/6/24 1:46:25	6/6/24 1:47:11	anonymous	Sandra Finley	Polson@collinscom.net	3076607505	59	Yes	Yes	Campbell
514	6/6/24 2:03:45	6/6/24 2:04:52	anonymous	George Finley	George.finley@morganplc.com	3076601232	61	Yes	Yes	Campbell
515	6/6/24 4:03:18	6/6/24 4:04:37	anonymous	Phil Fry			35	Yes	Yes	Campbell
516	6/6/24 4:42:20	6/6/24 4:43:39	anonymous	Daniel Zuck	wyomingzuck@gmail.com	3076965241	52	Yes	Yes	Campbell
517	6/6/24 4:50:30	6/6/24 4:50:59	anonymous	Zach Tolzien			29	Yes	Yes	Campbell
518	6/6/24 5:55:52	6/6/24 5:56:55	anonymous	LeAna Solomon	Rlsjs1989@gmail.com	3076807886	54	Yes	Yes	Campbell
519	6/6/24 5:56:59	6/6/24 5:57:57	anonymous	Rodger Solomon	Rlssurvey57@gmail.com	3072997664	67	Yes	Yes	Campbell
520	6/6/24 6:15:02	6/6/24 6:15:36	anonymous	Mandy Brown	mandyrbrown23@gmail.com	3076608543	46	Yes	Yes	Campbell
521	6/5/24 16:24:54	6/6/24 6:59:36	anonymous	Micheal Pridgeon	mapridgeon	3072810038	45	Yes	Yes	Campbell County
522	6/6/24 7:17:36	6/6/24 7:18:35	anonymous	Scott Edwards	Superstock8@hotmail.com	307-680-9498	41	Yes	Yes	Campbell
523	6/6/24 7:47:45	6/6/24 7:48:27	anonymous	Justin Kemerling	7009 Blacktooth ave	3072579404	43	Yes	Yes	Campbell
524	6/6/24 7:59:35	6/6/24 8:00:46	anonymous	Nicole Mullen				Yes	Yes	Campbell
525	6/6/24 8:20:27	6/6/24 8:22:05	anonymous	Brittany Farella	brithagen@gmail.com	3076294212	39	Yes	Yes	Campbell
526	6/6/24 8:25:33	6/6/24 8:26:13	anonymous	Cynthia Treadwell	cynthia1087@hotmail.com		63	Yes	Yes	Campbell
527	6/6/24 8:28:32	6/6/24 8:29:28	anonymous	John Bear	John.Bear@Wyoleg.gov	307-670-1130	57	Yes	Yes	Campbell
528	6/6/24 8:53:18	6/6/24 9:07:55	anonymous	Marlo Jones	marlorae77@yahoo.com	307-660-8475	47	Yes	Yes	Campbell
529	6/6/24 9:07:56	6/6/24 9:09:03	anonymous	Candace Kemerling	candyg780@msn.com	3076963682	42	Yes	Yes	Campbell
530	6/6/24 9:29:12	6/6/24 9:31:29	anonymous	John Hay			74	No	Yes	Sweetwater
531	6/6/24 9:41:31	6/6/24 9:42:37	anonymous	Kalina Petersen	KalinaP@alignmentpros.net	3076969581	63	Yes	Yes	Campbell
532	6/6/24 9:43:51	6/6/24 9:46:14	anonymous	Kenneth Dyk	kendo@vcn.com	307 682 3012	77	Yes	Yes	Cambell
533	6/6/24 9:54:17	6/6/24 9:56:42	anonymous	Brian Rohrbacher	PO Box 221 Hudson, WY 82515	3077092244	59	No	Yes	Fremont County
534	6/6/24 10:06:49	6/6/24 10:07:26	anonymous	Robin Baker	rbaker@crown-crt.com	3076804442	53	Yes	Yes	Campbell
535	6/6/24 10:25:13	6/6/24 10:26:43	anonymous	Linda Bradford	lbradford54@yahoo.com			Yes	Yes	Campbell
536	6/6/24 10:35:55	6/6/24 10:36:39	anonymous	Jeremiah Rieman				No	Yes	Laramie
537	6/6/24 11:47:01	6/6/24 11:48:12	anonymous	Tim rychecky	T.checky@yahoo.com	3076803688	44	Yes	Yes	Campbell
538	6/6/24 12:09:53	6/6/24 12:10:35	anonymous	Ryan Preston	ryan.preston@hilton.com	2083718832	44	No	Yes	Fremont
539	6/6/24 12:36:09	6/6/24 12:37:19	anonymous	Eric Waters	8 S Delta Dr. Box 760, Moorcroft WY 82721	3076808268	49	No	Yes	Crook
540	6/5/24 10:59:54	6/6/24 12:40:22	anonymous	Jordan Ostlund	jordan@ostlundrealestate.com	307.689.7448	41	Yes	Yes	Campbell
541	6/6/24 13:01:17	6/6/24 13:01:59	anonymous	Robert Short	rshort@spswyo.com	3072672389	21+	No	Yes	Converse
542	6/6/24 13:07:30	6/6/24 13:08:29	anonymous	Rebecca Paul	Pollywogs574@hotmail.com	307-696-1495	54	Yes	Yes	Campbell
543	6/6/24 13:18:16	6/6/24 13:18:58	anonymous	Julie Abbenhaus	juliepueringer@hotmail.com	3076606607	37	Yes	Yes	Campbell
544	6/6/24 13:20:08	6/6/24 13:20:52	anonymous	Madison Miller	Miller.madison.307@gmail.com	3077518626	22	Yes	Yes	Campbell
545	6/6/24 13:22:49	6/6/24 13:23:38	anonymous	Shelby Means	smeans42@gmail.com	7015274706	44	Yes	Yes	Campbell County
546	6/6/24 13:21:43	6/6/24 13:23:40	anonymous	William Miller	701 Express drive apt. 112	3077513237	56	Yes	Yes	Campbell
547	6/6/24 13:35:03	6/6/24 13:36:04	anonymous	David Schwend	davidschwend@hotmail.com	307-751-9355	48	No	Yes	Sheridan
548	6/6/24 13:42:21	6/6/24 13:42:51	anonymous	Jody Yelton	jody_yelton@hotmail.com	3079200373	53	No	Yes	Sheridan
549	6/6/24 13:47:14	6/6/24 13:47:52	anonymous	Ryan J. White	ryan.white@navenergy.com	3077510031	44	No	Yes	Sheridan
550	6/6/24 13:45:27	6/6/24 13:48:00	anonymous	Keith Walters	KPWinWYO@gmail.com	307 751 6358	55	No	Yes	Sheridan
551	6/6/24 13:50:01	6/6/24 13:50:31	anonymous	Heather Honken	heatherhonken@yahoo.com	3077609882	30	No	Yes	Sheridan County
552	6/6/24 14:01:14	6/6/24 14:02:01	anonymous	Francis R Bradford	lbradford54@yahoo.com			Yes	Yes	Campbell
553	6/6/24 14:01:59	6/6/24 14:02:36	anonymous	Angie Len Morfeld	angielen@collinscom.net	307-680-5535	49	Yes	Yes	Campbell
554	6/6/24 13:32:19	6/6/24 14:02:45	anonymous	Jim Willox	jim.willox@conversecountywy.gov		57	No	Yes	Converse
555	6/6/24 14:02:55	6/6/24 14:03:42	anonymous	Tracey Victoria Bau	Traceybau1@gmail.com	3077465689	27	Yes	Yes	Campbell
556	6/6/24 14:04:25	6/6/24 14:05:31	anonymous	Stephanie Kirchoff	Skserviceswy@gmail.com	3072579589	39	Yes	Yes	Campbell
557	6/6/24 14:06:54	6/6/24 14:09:47	anonymous	Brady Fairbanks	brady.fairbanks@navenergy.com	4067574244	34	No	Yes	Sheridan County
558	6/6/24 14:10:24	6/6/24 14:13:04	anonymous	Dayleena Brandenburg	dayleena@gilletlewy.gov	307-686-5296	56	Yes	Yes	Campbell
559	6/6/24 14:12:09	6/6/24 14:13:07	anonymous	Kaylee Jeffers	jefferskaylee@yahoo.com	307-4393490	26	No	Yes	Campbell
560	6/6/24 14:14:03	6/6/24 14:15:24	anonymous	Maryah			30	No	Yes	Campbell
561	6/6/24 14:17:47	6/6/24 14:18:44	anonymous	Bryce Knudsen				Yes	Yes	Campbell
562	6/6/24 14:21:22	6/6/24 14:21:56	anonymous	Lauren Beer	Lauren3682@yahoo.com		39	No	Yes	Campbell
563	6/6/24 14:24:36	6/6/24 14:25:35	anonymous	David Lawson			33	No	Yes	Sheridan
564	6/6/24 14:28:47	6/6/24 14:29:32	anonymous	Jenny Hall	Jenny.hall777@gmail.com	3078519414	38	No	Yes	Fremont
565	6/6/24 14:28:43	6/6/24 14:30:02	anonymous	Jodie Nichols	jodien1969@gmail.com	307-660-7361	54	Yes	Yes	Campbell County
566	6/6/24 14:40:47	6/6/24 14:41:20	anonymous	Kristin Mackey	pkmackey77@gmail.com	307-660-5747	43	Yes	Yes	Campbell
567	6/6/24 14:40:47	6/6/24 14:41:20	anonymous	Kristin Mackey	pkmackey77@gmail.com	307-660-5747	43	Yes	Yes	Campbell
568	6/6/24 14:41:00	6/6/24 14:41:36	anonymous	Jillian Smith			40	Yes	Yes	Campbell
569	6/6/24 14:42:59	6/6/24 14:43:36	anonymous	Nikki Leck	nikkileck@hotmail.com	307-899-5963	44	No	Yes	Park
570	6/6/24 14:43:54	6/6/24 14:44:16	anonymous	Travis Leck	tf_leck@hotmail.com	307-250-3234	45	No	Yes	Park
571	6/6/24 14:48:40	6/6/24 14:49:17	anonymous	Jennifer kwallek	Jenlen09@hotmail.com	3072999392	32	Yes	Yes	Campbell county
572	6/6/24 14:50:51	6/6/24 14:52:26	anonymous	Ian Jolovich, P.E.	ijolovich@gmail.com	3073313499	36	No	Yes	Platte
573	6/6/24 14:54:39	6/6/24 14:55:29	anonymous	Don Barthel	1334 Avon Street, Sheridan, Wyoming	307-299-8172	61	No	Yes	Sheridan
574	6/6/24 14:59:55	6/6/24 15:00:56	anonymous	Dane Ashley	dane.ashley@navenergy.com	406-757-4241	63	No	Yes	Sheridan
575	6/6/24 15:07:38	6/6/24 15:08:37	anonymous	Lynn	legauthier53@gmail.com	4076803946	71	Yes	Yes	Campbell
576	6/6/24 15:11:27	6/6/24 15:12:05	anonymous	Dona Mansell	Divedj@aol.com	815-505-6218	67	Yes	Yes	Campbell
577	6/6/24 15:22:16	6/6/24 15:23:58	anonymous	Stephanie Maston	Stephlynn3k@gmail.com	307-696-0238	37	Yes	Yes	Campbell
578	6/6/24 15:23:54	6/6/24 15:24:39	anonymous	James West	gowestgames@gmail.com	3076609946	50	Yes	Yes	Campbell
579	6/6/24 15:26:41	6/6/24 15:27:45	anonymous	Kelli Hess	KelliHess05@gmail.com	307-660-0460	36	No	No	Meade
580	6/6/24 15:35:10	6/6/24 15:35:46	anonymous	Amanda Palmer	amandakubo@ymail.com		36	Yes	Yes	Campbell

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

581	6/6/24 15:46:40	6/6/24 15:47:22	anonymous	Samantha	Krebsbach25@hotmail.com	7015708784	40	Yes	Yes	Campbell
582	6/6/24 15:48:12	6/6/24 15:48:56	anonymous	Allen Wellborn			35	No	Yes	Sheridan
583	6/6/24 15:49:26	6/6/24 15:51:38	anonymous	Patrick Wade	patwadec@gmail.com	307/216/0389	64	No	Yes	Niobrara
584	6/6/24 16:37:42	6/6/24 16:38:49	anonymous	Jenny Wipf	Jennywipf_pq@hotmail.com	3076896760	42	Yes	Yes	Campbell
585	6/6/24 16:50:09	6/6/24 16:51:16	anonymous	Jeff Bowker	Jbowker56@gmail.com	307 660 4388	66	Yes	Yes	Campbell
586	6/6/24 17:05:54	6/6/24 17:07:53	anonymous	Jody Hays	hays8@vcn.com	3076801408	61	Yes	Yes	Campbell
587	6/6/24 17:15:08	6/6/24 17:16:49	anonymous	Bailey				Yes	Yes	Campbell
588	6/6/24 17:16:56	6/6/24 17:17:10	anonymous	Logan				Yes	Yes	Campbell
589	6/6/24 17:29:23	6/6/24 17:31:16	anonymous	Anna L. Roberts	Aroberts544@outlook.com	307-299-7379	58	Yes	Yes	Campbell
590	6/6/24 17:36:09	6/6/24 17:36:53	anonymous	Joe Carter	joecarter596@gmail.com	307306-7793	40	Yes	Yes	Campbell
591	6/6/24 17:55:20	6/6/24 17:56:15	anonymous	James Garrison				Yes	Yes	Campbell County
592	6/6/24 18:16:08	6/6/24 18:18:28	anonymous	Roland Roberts		307 299 9739	59	Yes	Yes	Campbell
593	6/6/24 18:20:49	6/6/24 18:21:57	anonymous	Melody Gramstad	melodygramstad@gmail.com	3076800711	64	Yes	Yes	Campbell
594	6/6/24 18:38:37	6/6/24 18:39:46	anonymous	Christina Maxon	allornothing2011.ck@gmail.com	307-660-2702	48	Yes	Yes	Campbell
595	6/6/24 18:57:12	6/6/24 18:57:51	anonymous	Kim Hatzenbihler	Kjh@bresnan.net	307 660 1184	56	Yes	Yes	Campbell
596	6/6/24 19:13:44	6/6/24 19:14:17	anonymous	Darcy Hanson	Darcymhanson87@gmail.com		37	Yes	Yes	Campbell
597	6/6/24 19:16:02	6/6/24 19:16:43	anonymous	Natasha Lambert	Toshlambert@gmail.com	3606895839	36	Yes	Yes	Campbell
598	6/6/24 19:22:06	6/6/24 19:22:56	anonymous	Kellen Gatlin	kellengatlin@gmail.com	3076890025	42	Yes	Yes	Campbell
599	6/6/24 19:36:43	6/6/24 19:38:24	anonymous	Rueben Lovato	rrlovato@hotmail.com	307-737-2696	62	No	Yes	Sheridan County
600	6/6/24 19:41:31	6/6/24 19:42:23	anonymous	Randy Randall	katowyo@msn.com		63	No	Yes	Laramie
601	6/6/24 19:51:09	6/6/24 19:53:00	anonymous	Debra	Debrahoover3@yahoo.com		47	No	Yes	Country
602	6/6/24 20:10:31	6/6/24 20:11:10	anonymous	Nathan Hespern	njhespern@gmail.com	307-660-8977	31	Yes	Yes	Campbell
603	6/6/24 20:22:48	6/6/24 20:26:51	anonymous	Roy Earle Knutson Jr.	bdkntuson@rocketmail.com	3072993660	69	Yes	Yes	5 middle prong Rd. Gillette Wyoming
604	6/6/24 21:13:41	6/6/24 21:14:39	anonymous	Karen Cunningham	Kcunningham1920@gmail.com	3076801306	50	Yes	Yes	Campbell
605	6/6/24 21:14:11	6/6/24 21:15:40	anonymous	Charlie Cook	1205 green	3076222442	60	Yes	Yes	USA
606	6/6/24 21:52:02	6/6/24 21:53:10	anonymous	Paxton Mackey	Pkmackey23@gmail.com	307-660-1219	43	Yes	Yes	Campbell
607	6/6/24 21:53:50	6/6/24 21:54:29	anonymous	Darren Spillum	dspillum@yahoo.com	307-660-9609	41	Yes	Yes	Campbell
608	6/6/24 22:12:37	6/6/24 22:13:07	anonymous	Autum Dudley	jautum1302@gmail.com	307-696-9617	42	Yes	Yes	Campbell
609	6/6/24 22:14:55	6/6/24 22:16:54	anonymous	Rita Blazek	ritablazek13@bmail.com	3076606586	49	Yes	Yes	Campbell
610	6/6/24 22:44:06	6/6/24 22:47:42	anonymous	Agustus Murdock	agustus.murdock@navenergy.com	4066987157	31	No	No	Big Horn County, Montana
611	6/6/24 22:48:44	6/6/24 22:49:42	anonymous	Shay Lundvall	Lundvalls@gillettesy.gov	3072283050	40	Yes	Yes	Campbell
612	6/6/24 23:04:01	6/6/24 23:05:25	anonymous	Hugh Stephenson	h.l.stephenson1966@gmail.com	(307) 431-1397	56	Yes	Yes	Campbell
613	6/6/24 23:17:55	6/6/24 23:18:39	anonymous	Shelley K Walker	skwalker67@aol.com	3076801468	56	Yes	Yes	Campbell
614	6/6/24 23:43:15	6/6/24 23:44:11	anonymous	Glenda Edwards			67	Yes	Yes	Campbell
615	6/6/24 23:44:45	6/6/24 23:45:14	anonymous	Janet Staudinger				Yes	Yes	Campbell
616	6/7/24 3:46:38	6/7/24 3:47:34	anonymous	Aspen Glasscock			24	Yes	Yes	Campbell County
617	6/7/24 4:33:24	6/7/24 4:34:47	anonymous	Toy Buell	toybuell@gmail.com	307-299-2053	48	Yes	Yes	Campbell
618	6/7/24 4:33:24	6/7/24 4:34:47	anonymous	Toy Buell	toybuell@gmail.com	307-299-2053	48	Yes	Yes	Campbell
619	6/7/24 5:26:06	6/7/24 5:28:16	anonymous	denise richards			72	Yes	Yes	Campbell
620	6/7/24 5:47:56	6/7/24 5:49:37	anonymous	Jeffery Wells	Wellsjabc@gmail.com	3073911331	37	Yes	Yes	Campbell
621	6/7/24 5:49:49	6/7/24 5:50:43	anonymous	Amanda Wells	Awells@outlook.com	3073911598	36	Yes	Yes	Campbell
622	6/7/24 5:54:03	6/7/24 5:55:47	anonymous	Larry Nichols	franrsi@icloud.com	307-660-5048	59	Yes	Yes	USA
623	6/7/24 5:54:17	6/7/24 5:57:58	anonymous	Leslie Richards	les.richards@aol.com	443-223-1459	70	Yes	Yes	Campbell
624	6/7/24 6:00:54	6/7/24 6:02:47	anonymous	Frances Nichols			64	Yes	Yes	Campbell
625	6/7/24 6:07:23	6/7/24 6:07:54	anonymous	Tasha Buell	tashabuell.2001@gmail.com	3076222631	22	Yes	Yes	Campbell County
626	6/7/24 6:15:17	6/7/24 6:16:48	anonymous	Bryce Reece	B_reece@reagan.com			No	Yes	Natrona
627	6/7/24 7:04:03	6/7/24 7:05:59	anonymous	Aimee Conner	Raconner@collinscom.net	3076609715	53	Yes	Yes	Campbell
628	6/7/24 7:06:05	6/7/24 7:06:56	anonymous	Randy Conner	Raconner@collinscom.net	3076865151	67	Yes	Yes	Campbell
629	6/7/24 6:55:08	6/7/24 7:10:39	anonymous	Kevin	sebasussmc@gmail.com	3072179600	34	No	Yes	Johnson
630	6/7/24 7:12:34	6/7/24 7:13:17	anonymous	Gabe Johnson	1472 Thomas Drive	307-461-0243	47	No	Yes	Sheridan County
631	6/7/24 7:21:28	6/7/24 7:22:36	anonymous	James Mankin	prairegoat1@yahoo.com	307-299-2407	56	Yes	Yes	Campbell
632	6/7/24 7:38:37	6/7/24 7:40:22	anonymous	Laurie Darlow				Yes	Yes	Campbell
633	6/7/24 8:01:36	6/7/24 8:02:30	anonymous	Hanna Baumann	hbau934@yahoo.com	3076893079	40	No	Yes	Park
634	6/7/24 7:55:33	6/7/24 8:11:31	anonymous	Casey Owings	Casey.Owings@NavEnergy.com	4067547299	39	No	Yes	Sheridan
635	6/7/24 8:20:54	6/7/24 8:21:46	anonymous	Jessica Kiehn	2205 Daybreak Dr.	3076807734	39	Yes	Yes	Campbell
636	6/7/24 8:22:39	6/7/24 8:23:50	anonymous	Vicky Skadsem	vskadsem@collinscom.net		50+	Yes	Yes	Campbell
637	6/7/24 8:22:04	6/7/24 8:23:50	anonymous	Renee Wershney	jackson-renee@hotmail.com	503-705-0452	50	Yes	Yes	Campbell
638	6/7/24 8:23:42	6/7/24 8:25:01	anonymous	Staci Riggle	Anastasialeanne@hotmail.com	2092561872	43	Yes	Yes	Campbell County
639	6/7/24 8:26:19	6/7/24 8:27:45	anonymous	Marty D. Grover	marty.grover@navenergy.com	406-757-4296	52	No	Yes	Sheridan
640	6/7/24 8:34:28	6/7/24 8:36:15	anonymous	Lance Sigismond	Lance.sigismond@peming.com	3076823403	54	Yes	Yes	Campbell
641	6/7/24 8:36:05	6/7/24 8:36:48	anonymous	Joe Webb	webbjwyo@gmail.com		65	No	Yes	Uinta
642	6/7/24 8:27:26	6/7/24 8:38:36	anonymous	Jessica Kimbrough	booboomurph@yahoo.com	307-622-7211	32	Yes	Yes	Campbell
643	6/7/24 8:48:02	6/7/24 8:48:35	anonymous	Kristi Kluck	1405 Carmel Court Gillette WY	307-685-4302	45	Yes	Yes	campbell
644	6/7/24 8:52:21	6/7/24 8:54:08	anonymous	Gloria Buell		3077521840	70	Yes	Yes	Cambell
645	6/7/24 9:00:26	6/7/24 9:01:14	anonymous	Rebekah eyre	Rdeyreaml@gmail.com	7405417191	36	No	Yes	Uinta
646	6/7/24 9:05:25	6/7/24 9:06:22	anonymous	Linda A	Lbeast216@aol.com	775-220-3000	35	Yes	Yes	Campbell
647	6/7/24 9:11:47	6/7/24 9:13:16	anonymous	Robert Dexter	r_ldexter@msn.com	307-699-1761	62	No	Yes	Sublette
648	6/7/24 9:24:49	6/7/24 9:26:16	anonymous	Margaret kuchy	Margaretkuchy@gmail.com	541-554-0050	71	Yes	Yes	Campbell
649	6/7/24 9:34:57	6/7/24 9:36:39	anonymous	Erik Jorgensen	4givn10312@gmail.com		42	No	Yes	Sheridan
650	6/7/24 9:36:47	6/7/24 9:37:23	anonymous	Ruthie O'Donnell	ruthiemay21@gmail.com	4069811655	25	No	Yes	Campbell
651	6/7/24 9:41:46	6/7/24 9:44:20	anonymous	Dan King	dan@k2technologies.net	307-689-4577	56	Yes	Yes	Campbell
652	6/7/24 9:46:48	6/7/24 9:47:45	anonymous	Ben Decker	benmdecker@hotmail.com	(307)689-3315	44	Yes	Yes	Campbell
653	6/7/24 10:09:56	6/7/24 10:10:50	anonymous	Cris	crisr@bresnan.net	3078504560	63	No	Yes	Fremont

### Campbell County Petition to Reconsider BLM Coal Leasing Ban

654	6/7/24 10:11:29	6/7/24 10:12:36	anonymous	Misty Bluemel	froggy.bluemel61@gmail.com	3077475464	52	No	Yes	Uinta
655	6/7/24 10:14:07	6/7/24 10:15:55	anonymous	Julie Saint	juliesaint.js@gmail.com	3072472790	41	No	Yes	Converse
656	6/7/24 10:30:11	6/7/24 10:31:20	anonymous	Kerry Myers	kmyers@vcn.com	3076808826	47	Yes	Yes	Campbell
657	6/7/24 10:31:23	6/7/24 10:32:16	anonymous	Michael Myers	kmyers@vcn.com	3076608234	50	Yes	Yes	Campbell
658	6/7/24 9:48:35	6/7/24 10:58:43	anonymous	Zachary Levi Thiel	zachtthiel16@gmail.com	1-307-254-1469	31	No	Yes	Park
659	6/7/24 11:55:50	6/7/24 11:56:48	anonymous	Lisa eyre	lisaaneyre@hotmail.com	4357707589	40	No	Yes	Uinta
660	6/7/24 11:56:14	6/7/24 11:58:08	anonymous	Melanie R. McGarva	Melaniemcgarva@yahoo.com	775-389-9623	45	No	Yes	Sheridan
661	6/7/24 12:43:06	6/7/24 12:44:38	anonymous	Beverly Garst	609 W 5th St	307-660-6632	69	Yes	Yes	Campbell
662	6/7/24 13:20:53	6/7/24 13:21:48	anonymous	Jeff Gray	Jeffgray@tcrr-wy.com	3076603790	50	Yes	Yes	Campbell
663	6/7/24 13:24:14	6/7/24 13:30:51	anonymous	Julie Carpenter	juliecarpenter771@gmail.com			Yes	Yes	Campbell
664	6/7/24 13:32:31	6/7/24 13:34:16	anonymous	Teresa Curtis	tlcurtis55@yahoo.com	1-307-660-9047	68	Yes	Yes	Campbell
665	6/7/24 13:33:35	6/7/24 13:35:21	anonymous	Melissa Hatling	Melissahatling@gmail.com	3077562577	42	No	Yes	Crook
666	6/7/24 13:42:01	6/7/24 13:43:03	anonymous	Peggy Study	Lpstudy@vcn.com	3076807219	64	Yes	Yes	Campbell
667	6/7/24 13:42:47	6/7/24 13:43:11	anonymous	Nathan Marchbank				Yes	Yes	Campbell
668	6/7/24 13:43:10	6/7/24 13:44:06	anonymous	Larry Study	Lpstudy@vcn.com	3076607219	68	Yes	Yes	Campbell
669	6/7/24 14:13:35	6/7/24 14:14:36	anonymous	William Deaton	joedeaton48@gmail.com	3076606075	55	Yes	Yes	Campbell
670	6/7/24 14:13:41	6/7/24 14:14:55	anonymous	Brian McCollum	quinn_wyo_05@yahoo.com			No	Yes	Crook
671	6/7/24 14:43:04	6/7/24 14:43:50	anonymous	Lori Bentz	lbentz1515@yahoo.com	3308432496	59	Yes	Yes	Campbell
672	6/6/24 15:02:47	6/7/24 14:47:16	anonymous	Craig Russell	craig@bresnan.net	3076227108	56	No	Yes	Sheridan
673	6/7/24 14:50:04	6/7/24 14:51:58	anonymous	Dennis Meyers	debs@collinscom.net	307-660-9368	65	Yes	Yes	Campbell County
674	6/7/24 14:53:13	6/7/24 14:54:04	anonymous	Susan Clary	Sclary27@yahoo.com	3076604791	66	Yes	Yes	Campbell
675	6/7/24 14:54:26	6/7/24 14:55:11	anonymous	Jack Clary	Sclary27@yahoo.com	307 660 4791	71	Yes	Yes	Campbell
676	6/7/24 15:07:46	6/7/24 15:09:08	anonymous	Jo Cook	Gojo@vcn.com	680-6489	70+	Gojo@vcn.com	Yes	Campbell
677	6/7/24 15:22:17	6/7/24 15:23:04	anonymous	Sharon Webb	webbs58@hotmail.com	3077873669	65	No	Yes	Uinta County
678	6/7/24 15:30:02	6/7/24 15:30:48	anonymous	Lauren Tryon	Lauren.tryon11@gmail.com		33	Yes	Yes	Campbell
679	6/7/24 15:30:21	6/7/24 15:31:05	anonymous	Ruth Peltier				Yes	Yes	Campbell
680	6/7/24 15:32:54	6/7/24 15:33:37	anonymous	Renny MackKay	rmackay@wyoba.com	3076202715	47	No	Yes	Laramie
681	6/7/24 15:37:29	6/7/24 15:38:14	anonymous	Terra Garrison	Tcolean0523@gmail.com	307-363-3470	39	Yes	Yes	Campbell
682	6/7/24 15:44:23	6/7/24 15:46:04	anonymous	Tracy Brandenburg				No	No	Non resident of Wy. Have a strong stance on the ban
683	6/7/24 15:45:13	6/7/24 15:46:23	anonymous	Phillip Scheel	phillip.scheel@tumbleweedpropane.com	307-460-0347	41	No	Yes	Hot Springs County
684	6/7/24 15:47:39	6/7/24 15:50:03	anonymous	Chad Ekberg	ekberg@vcn.com	307-686-0588	71	Yes	Yes	Campbell
685	6/7/24 15:45:34	6/7/24 15:52:03	anonymous	Joseph M Baron	joeb@crookcounty.wy.gov	307-283-1090	65	No	Yes	Crook
686	6/7/24 16:15:40	6/7/24 16:20:43	anonymous	Debbie Meyers	debs@collinscom.net	307-680-9368	63	Yes	Yes	Campbell
687	6/7/24 16:20:21	6/7/24 16:21:29	anonymous	Darla J. Cotton	djcwyo@gmail.com	307-660-7949	54	Yes	Yes	Campbell
688	6/7/24 16:21:58	6/7/24 16:22:48	anonymous	Karen Melzer	Kmelzer61@gmail.com	307-680-7924	62	Yes	Yes	Campbell
689	6/7/24 16:26:47	6/7/24 16:29:31	anonymous	Michael Jones	Mjones31957@gmail.com	970.297.8957	67	No	Yes	Fremont County
690	6/7/24 16:34:10	6/7/24 16:35:33	anonymous	David Robinson	david.robinson@navenergy.com	307-660-9169	63	Yes	Yes	Campbell
691	6/7/24 16:36:53	6/7/24 16:37:55	anonymous	Ryan J	ryanajones60413@gmail.com	3076226598	28	Yes	Yes	Campbell
692	6/7/24 16:47:51	6/7/24 16:48:33	anonymous	Preston Schilling	preston@vcn.com	3076893426	39	Yes	Yes	Campbell
693	6/7/24 16:52:37	6/7/24 16:54:06	anonymous	Roger Brunelli	kentbelindabrunelli@hotmail.com	307 299 7312	55	Yes	Yes	Campbell
694	6/7/24 17:08:34	6/7/24 17:09:44	anonymous	Stanley R Dymond III	jdymond@iogfs.com	307-299-7546	66	Yes	Yes	Campbell
695	6/7/24 17:14:10	6/7/24 17:16:07	anonymous	Judith K Bayles	jgbayles@gmail.com	307-689-1511	84	Yes	Yes	Campbell
696	6/7/24 17:28:55	6/7/24 17:30:15	anonymous	Julie Whetsell	jwhetsell@rtconnect.net	3077465483	64	No	Yes	Weston
697	6/7/24 17:29:46	6/7/24 17:31:24	anonymous	Richard W. Calvert	R.calvert@charter.net	3076805061	65	Yes	Yes	Campbell
698	6/7/24 17:59:55	6/7/24 18:00:28	anonymous	Dawn Entel	scraper0497@gmail.com	3076705317	40	Yes	Yes	Campbell
699	6/7/24 18:00:33	6/7/24 18:01:29	anonymous	William Entel	williamentel_500@yahoo.com	3079393158	37	Yes	Yes	Campbell
700	6/7/24 18:24:30	6/7/24 18:25:19	anonymous	Melissa hedlund	Melissahedlund18@yahoo.com	307 6809442	45	Yes	Yes	Campbell
701	6/7/24 18:25:25	6/7/24 18:26:02	anonymous	Steven hedlund	Steve1Shedlund@yahoo.com	307 660 6952	46	Yes	Yes	Campbell
702	6/7/24 18:38:56	6/7/24 18:39:26	anonymous	Mandy Steward				Yes	Yes	Campbell
703	6/7/24 18:38:57	6/7/24 18:39:26	anonymous	Mandy Steward				Yes	Yes	Campbell
704	6/7/24 18:42:54	6/7/24 18:43:38	anonymous	Kyle A quick	Kquick385@gmail.com	3076607451	39	Yes	Yes	Campbell
705	6/7/24 18:43:21	6/7/24 18:44:59	anonymous	Cathy Wilkinson	cwilkinson47@msn.com	3076601491	72	Yes	Yes	Campbell
706	6/7/24 18:57:27	6/7/24 18:58:48	anonymous	Rebecca Peterson	Stevebecki88@gmail.com	3076806298	60	Yes	Yes	Campbell
707	6/7/24 18:57:20	6/7/24 18:59:15	anonymous	Steven Peterson	Stevebecki88@gmail.com	3072994315	60	Yes	Yes	Campbell county
708	6/7/24 18:59:59	6/7/24 19:01:31	anonymous	Justin Bailey	j.bailey1455@gmail.com	3077514837	24	No	Yes	Sheridan
709	6/7/24 19:20:03	6/7/24 19:21:38	anonymous	Ryan Kula	ryan.kula@navenergy.com	4067574221	39	No	Yes	Sheridan
710	6/7/24 19:24:51	6/7/24 19:26:24	anonymous	Ken Kuntz	kuntz1965@gmail.com	307-780-7118	59	No	Yes	No, uinta County resident
711	6/7/24 19:33:19	6/7/24 19:34:01	anonymous	Barb Chiles	goforgreenbay@yahoo.com	3076965529	44	No	Yes	Crook
712	6/7/24 19:39:01	6/7/24 19:41:15	anonymous	Judy Heidel	Jaheidel@outlook.con	3076896148	52	Yes	Yes	Campbell
713	6/7/24 20:23:36	6/7/24 20:25:05	anonymous	Catina Wieburg	ScottieWieburg@msn.com		50	Yes	Yes	Campbell
714	6/7/24 20:25:34	6/7/24 20:27:41	anonymous	Brenda L Wilson	brendawilson55@icloud.com	3073493192	68	Yes	Yes	Campbell
715	6/7/24 20:36:18	6/7/24 20:37:13	anonymous	Cathleen Stalcup	442 Lee Esther Ln	307-680-6815	61	Yes	Yes	Campbell
716	6/7/24 20:43:19	6/7/24 20:44:24	anonymous	Hattie McVay	Hmmcvay2173@gmail.com	3076800228	50	Yes	Yes	Campbell
717	6/7/24 20:51:55	6/7/24 20:54:11	anonymous	Dennis Zemski	denniszemski@yahoo.com	307-674-1868	64	No	Yes	Sheridan
718	6/7/24 20:54:34	6/7/24 20:55:08	anonymous	David Marquiss	thepatriot2016@gmail.com		39	No	Yes	Goshen
719	6/7/24 20:59:51	6/7/24 21:03:57	anonymous	Marvel Cosner	marvcosner@yahoo.com	3076821235	68	Yes	Yes	yes
720	6/7/24 21:24:29	6/7/24 21:26:01	anonymous	Joel Guggenmos	joog.husker@gmail.com	3078505349	44	No	Yes	Fremont
721	6/7/24 21:38:27	6/7/24 21:40:38	anonymous	Nita Rieniets	nita3382@vcn.com	3076800416	65	Yes	Yes	Campbell
722	6/7/24 21:41:00	6/7/24 21:46:06	anonymous	Jim Rieniets	Jim@rienietsfinancial.com	13076800813	62	Yes	Yes	Campbell
723	6/7/24 22:07:04	6/7/24 22:08:04	anonymous	Ross Brimmer	brimmer49@live.com	3076969790	39	Yes	Yes	Campbell
724	6/7/24 22:09:35	6/7/24 22:10:57	anonymous	John Haivala	jhaivala@vcn.com	307-660-7900	72	Yes	Yes	Campbell
725	6/7/24 22:45:07	6/7/24 22:45:57	anonymous	Greggory Michael Fernald	ggfernaldd@yahoo.com	3076961085	53	No	Yes	Sheridan
726	6/7/24 23:34:27	6/7/24 23:35:20	anonymous	Rob Dickey	1103 Terrace Circle	3076608208	56	Yes	Yes	Campbell



**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

727	6/8/24 4:09:33	6/8/24 4:11:10	anonymous	Effie Lewis	barefootife@hotmail.com	307-751-4640	60	No	Yes	Sheridan County
728	6/8/24 5:34:58	6/8/24 5:37:39	anonymous	Rita Farrow	Rfarrow54@msn.com		69	Yes	Yes	Campbell
729	6/8/24 6:09:24	6/8/24 6:10:33	anonymous	Ann VanderVoort	Vandervam65@gmail.com	3076808313	58	Yes	Yes	Campbell
730	6/8/24 6:15:23	6/8/24 6:16:37	anonymous	Fred Septka	septka.fred.nav.com	6056413670	47	Yes	Yes	Campbell
731	6/8/24 6:16:40	6/8/24 6:18:49	anonymous	Christopher McGrath	cjmcoo67@gmail.com	6055801096	56	Yes	Yes	Campbell
732	6/8/24 6:18:55	6/8/24 6:21:31	anonymous	James McBride	james.mcbride1966@gmail.com	307 680 7664	58	Yes	Yes	Campbell
733	6/8/24 6:21:34	6/8/24 6:23:35	anonymous	Herb Bray	herbbray56@gmail.com	307 696 1285	68	Yes	Yes	Campbell
734	6/8/24 6:23:47	6/8/24 6:25:58	anonymous	Clifford L Oedeekoven	havenotranch@live.com	307 660-8830	64	Yes	Yes	Campbell
735	6/8/24 6:26:02	6/8/24 6:31:05	anonymous	Brennan Green				Yes	Yes	Campbell
736	6/8/24 6:31:07	6/8/24 6:32:22	anonymous	Melvin petersen				Yes	Yes	campbell
737	6/8/24 6:32:34	6/8/24 6:34:31	anonymous	phillip brinkerhoff				Yes	Yes	campbell
738	6/8/24 6:34:34	6/8/24 6:35:24	anonymous	Brenda Davis				Yes	Yes	CAMPBELL
739	6/8/24 6:36:23	6/8/24 6:36:58	anonymous	Brandon Hatcher				Yes	Yes	Campbell
740	6/8/24 6:37:06	6/8/24 6:38:47	anonymous	Jesse Haugen				No	Yes	Campbell
741	6/8/24 6:38:54	6/8/24 6:39:55	anonymous	Mel James	mms_36_in99@yahoo.com			Yes	Yes	Campbell
742	6/8/24 6:42:40	6/8/24 6:51:17	anonymous	aaron garlick				Yes	Yes	campbel county
743	6/8/24 6:51:26	6/8/24 6:52:06	anonymous	Waylon george				Yes	Yes	campbell county
744	6/8/24 6:52:34	6/8/24 6:53:02	anonymous	Danielle Jodozi				No	Yes	Campbell
745	6/8/24 6:53:17	6/8/24 6:54:17	anonymous	Lyle Huddleston		307 680 4574	49	Yes	Yes	Campbell
746	6/8/24 6:54:24	6/8/24 6:56:34	anonymous	brian leham	robnbri62@charter.net	307 670 4609	61	Yes	Yes	campbell
747	6/8/24 6:58:53	6/8/24 7:00:19	anonymous	Freddie Kokesh	Alohafreddie@gmail.com	3076894573	62	Yes	Yes	Campbell
748	6/8/24 7:14:16	6/8/24 7:16:14	anonymous	Jeanen Dryden	jeanen.dryden@gmail.com	307-680-8049	73	Yes	Yes	Campbell
749	6/8/24 7:19:32	6/8/24 7:21:31	anonymous	Jennifer Tuomela	jennlaplante7@rocketmail.com	307-680-1841	52	Yes	Yes	Campbell
750	6/8/24 7:26:04	6/8/24 7:27:16	anonymous	Marvel Cosner	marvcosner@yahoo.com	307-682-1235	68	Yes	Yes	Campbell
751	6/8/24 7:38:44	6/8/24 7:39:38	anonymous	Debra L Knutson	bdknutson@rocketmail.com	3076601207	69	Yes	Yes	Campbell
752	6/8/24 8:04:52	6/8/24 8:07:38	anonymous	Tim Hoaglund				Yes	Yes	Campbell
753	6/8/24 8:14:39	6/8/24 8:15:41	anonymous	Jena meader	Jenameader@hotmail.com	3072993956	47	Yes	Yes	Campbell
754	6/8/24 8:33:59	6/8/24 8:35:07	anonymous	Nichole Shelstad	nshelstad@outlook.com	307-660-1918	56	Yes	Yes	Campbell
755	6/8/24 8:34:30	6/8/24 8:36:00	anonymous	Clinton Burton	bigg_dog67@yahoo.com	307-257-9652	56	Yes	Yes	Campbell
756	6/8/24 8:56:46	6/8/24 8:57:46	anonymous	Cindy Addison	Clavonne.addison@gmail.com	3074097643	57	No	Yes	Sheridan
757	6/8/24 8:53:48	6/8/24 8:58:43	anonymous	Brad Balek	bkelab@yahoo.com		47	Yes	Yes	Campbell
758	6/8/24 8:58:39	6/8/24 8:59:35	anonymous	Kirby	ostlerkj@gmail.com	3074611794	57	No	Yes	Sheridan
759	6/8/24 9:08:53	6/8/24 9:10:14	anonymous	Sandy Perkins	sandrap1968@hotmail.com	3076805053	56	No	Yes	Sheridan
760	6/8/24 9:24:52	6/8/24 9:25:26	anonymous	Jacob pitchford	Jacobpitchford@yahoo.com	3076891532	27	Yes	Yes	Campbell
761	6/8/24 9:36:14	6/8/24 9:37:00	anonymous	Thomas Miles	00ragtop@gmail.com	307-682-7430	66	Yes	Yes	Campbell
762	6/8/24 10:23:48	6/8/24 10:25:02	anonymous	Jenifer jahner	Jenlynnwarrior@gmail.com	307-689-5513	46	Yes	Yes	Campbell
763	6/8/24 11:54:03	6/8/24 11:57:20	anonymous	Beverly Stone	beverleyann65@gmail.com	9895069738	79	No	No	Clare
764	6/8/24 12:03:47	6/8/24 12:04:36	anonymous	Bonnie L. Hertel	Bonnie6670@hotmail.com	307-680-0576	54	Yes	Yes	Campbell
765	6/8/24 12:20:59	6/8/24 12:22:14	anonymous	Loren T. Hertel	Lorenhertel@live.com	307-680-4797	58	Yes	Yes	Campbell
766	6/8/24 12:22:23	6/8/24 12:23:22	anonymous	Sydney Hertel	Sydneyhertel@gmail.com	307-299-7332	25	No	Yes	Campbell
767	6/8/24 12:39:00	6/8/24 12:40:06	anonymous	Shelby Hunt	Shertel@live.com	3072991613	32	Yes	Yes	Campbell
768	6/8/24 14:17:05	6/8/24 14:18:47	anonymous	Ryan Fox	fire1118@hotmail.com	3076892616	44	Yes	Yes	Campbell
769	6/8/24 14:44:57	6/8/24 14:46:17	anonymous	Randy Bath	randyath@bresnan.net	307-687-7569	59	Yes	Yes	Campbell
770	6/8/24 16:05:20	6/8/24 16:07:21	anonymous	Charles R Butler III	crbutleriii@hotmail.com	307-660-4226	66	Yes	Yes	Campbell
771	6/8/24 16:09:52	6/8/24 16:12:33	anonymous	Gene Moore	gene1961m@yahoo.com	307-254-8034	62	Yes	Yes	Campbell
772	6/8/24 16:56:40	6/8/24 16:57:40	anonymous	MELISSA VENEGAS	Melissochsner@yahoo.com	7202553225	45	No	Yes	Campbell
773	6/8/24 16:58:30	6/8/24 16:59:58	anonymous	Jocelin Ochsner	ochsner@collinscom.net		68	No	Yes	Campbell
774	6/8/24 16:59:40	6/8/24 17:02:04	anonymous	Michelle Jeffery	michelle.je@live.com	4253571233	49	No	No	Snohomish
775	6/8/24 17:03:15	6/8/24 17:04:17	anonymous	James A Harry	Jim.harry27@yahoo.com	4076896042	70	Yes	Yes	Campbell
776	6/8/24 17:12:45	6/8/24 17:14:09	anonymous	Karrie	karrie@vcn.com	307-660-1194	61	Yes	Yes	Campbell
777	6/8/24 18:30:37	6/8/24 18:32:56	anonymous	Jeff Jefferson Jr	Jjefferson82@yahoo.com	4062811381	41	No	No	Big Horn county, Montana
778	6/8/24 18:34:28	6/8/24 18:35:34	anonymous	Andrew baker	aabaker81@outlook.com	307-689-8441	42	Yes	Yes	Campbell
779	6/8/24 18:37:43	6/8/24 18:38:19	anonymous	Sandi Fulton	Sfulton1214@gmail.com	3072994858	36	Yes	Yes	Campbell
780	6/8/24 18:38:31	6/8/24 18:39:32	anonymous	Tish Steele	tishs1973@gmail.com	3076602178	51	Yes	Yes	Campbell
781	6/8/24 18:38:50	6/8/24 18:40:25	anonymous	Scott	Motley7430@yahoo.com	3072993390	51	Yes	Yes	Campbell
782	6/8/24 18:37:36	6/8/24 18:40:31	anonymous	Jacob Showerman	Jcshowerman@gmail.com	3074870566	32	Yes	Yes	Campbell
783	6/8/24 18:44:29	6/8/24 18:46:09	anonymous	Kim McClure				No	Yes	Crook
784	6/8/24 18:46:44	6/8/24 18:47:34	anonymous	Kenneth Hvam				Yes	Yes	Campbell
785	6/8/24 18:47:37	6/8/24 18:48:15	anonymous	Corey Hullinger				Yes	Yes	Campbell
786	6/8/24 18:48:07	6/8/24 18:48:46	anonymous	Cindy washburn	brlrcer2@yahoo.com	3076701621	57	Yes	Yes	Campbell
787	6/8/24 18:48:18	6/8/24 18:49:07	anonymous	Jonathan Osborne				Yes	Yes	Campbell
788	6/8/24 18:48:13	6/8/24 18:49:08	anonymous	Kathryn Adams	kadams13@hotmail.com	3077805094	63	No	Yes	Uinta
789	6/8/24 18:51:36	6/8/24 18:53:06	anonymous	Rick Collins				Yes	Yes	Campbell
790	6/8/24 19:02:41	6/8/24 19:07:11	anonymous	Dale R. Britton	daleray53@hotmail.com	307 660 1161	70	Yes	Yes	Campbell
791	6/8/24 19:16:39	6/8/24 19:17:27	anonymous	Carol McNeely	cavermeermcneely@gmail.com		63	Yes	Yes	Campbell
792	6/8/24 19:29:01	6/8/24 19:30:17	anonymous	Jennifer Neeley	Jlr4050@hotmail.com	9316982048	53	No	No	USA
793	6/8/24 19:32:17	6/8/24 19:33:50	anonymous	michael fritz	mfrtiz1221988@gmail.com	9186064982	35	No	Yes	campbell
794	6/8/24 19:44:43	6/8/24 19:45:16	anonymous	Jay Kling	Kling,j.jay@gmail.com	3073598691	30	Yes	Yes	Campbell
795	6/8/24 20:59:58	6/8/24 21:00:25	anonymous	Rachel Webb	anaheimrachel@gmail.com			No	Yes	Uinta
796	6/8/24 21:32:34	6/8/24 21:33:08	anonymous	Matthew Mungiole				Yes	Yes	Campbell
797	6/8/24 21:41:24	6/8/24 21:43:05	anonymous	Scottie wieburg	Scottiewow6@live.com	3072990461	47	Yes	Yes	Campbell
798	6/8/24 21:57:35	6/8/24 22:01:05	anonymous	Shannon	Sjohnston307@gmail.com	3076891993	52	Yes	Yes	Campbell
799	6/8/24 22:40:24	6/8/24 22:41:41	anonymous	Connie Hortin	chortin53@live.com	307-787-3495	71	No	Yes	Uinta



**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

800	6/8/24 22:42:01	6/8/24 22:43:22	anonymous	Don Hortin	ddhortin@live.com	3077807964	75	No	Yes	Uinta
801	6/8/24 22:43:09	6/8/24 22:45:02	anonymous	Mindy Suchor	Monixskin@gmail.com	7015903424	45	Yes	Yes	Campbell county
802	6/9/24 0:03:22	6/9/24 0:04:50	anonymous	David Lass			40	No	Yes	Natrona
803	6/9/24 4:54:47	6/9/24 4:57:33	anonymous	Laura Robinson	larobin02@gmail.com		54	Yes	Yes	Campbell
804	6/9/24 5:36:23	6/9/24 5:37:08	anonymous	George Dunlap	george@dunlapphoto.com	307-660-7776	67	Yes	Yes	Campbell
805	6/9/24 5:48:57	6/9/24 5:49:34	anonymous	Christine Kennedy	christinekndy@pm.me	3072995536	36	Yes	Yes	Campbell
806	6/9/24 6:05:28	6/9/24 6:07:19	anonymous	Linda J Whites	topnotchautoinc@outlook.com	13076601798	76	Yes	Yes	Campbell
807	6/9/24 6:45:06	6/9/24 6:45:53	anonymous	Kristi Riedesel	Kristiriedesel@rocketmail.com	3072672562	47	Yes	No	Campbell
808	6/9/24 7:28:29	6/9/24 7:29:49	anonymous	Bridget Griffin	Bridgetgriffin81@yahoo.com	307-299-6255	61	Yes	Yes	Campbell
809	6/9/24 7:36:30	6/9/24 7:37:27	anonymous	Brett Larson	bcamlarson1@gmail.com	3073700156	22	No	Yes	Carbon County
810	6/9/24 7:37:57	6/9/24 7:39:15	anonymous	Hailey Wooldridge	ingersoll_hailey@yahoo.com	3072999811	28	Yes	Yes	Campbell
811	6/9/24 7:39:26	6/9/24 7:40:17	anonymous	Quint Wooldridge	quintwooldridge@yahoo.com	3077518301	33	Yes	Yes	Campbell
812	6/9/24 7:40:19	6/9/24 7:41:26	anonymous	Chris Ingersoll	conan464@gmail.com	6056458570	54	Yes	Yes	Campbell
813	6/9/24 7:52:25	6/9/24 7:52:51	anonymous	Cameron Brisch	cambrisch@gmail.com	3077513440	33	No	Yes	Sheridan
814	6/9/24 7:52:04	6/9/24 7:53:28	anonymous	Branden Giannino	brandengino@yahoo.com	2193344070		No	Yes	Hot Springs County
815	6/9/24 8:33:12	6/9/24 8:34:20	anonymous	Shellie Rowley	sdrsmiles@outlook.com		50	No	Yes	Lincoln
816	6/9/24 8:34:42	6/9/24 8:35:31	anonymous	Vance Rowley	vrwelding@yahoo.com		55	No	Yes	Lincoln
817	6/9/24 8:38:24	6/9/24 8:39:16	anonymous	Danielle Matte	danielle@akjchemicals.com	3072993444	40	No	Yes	Campbell County
818	6/9/24 9:37:19	6/9/24 9:38:04	anonymous	Nicole Peters	nicole@erapriority.com	3073595446	43	Yes	Yes	Campbell
819	6/9/24 10:27:51	6/9/24 10:29:33	anonymous	Jane Johnston	jjwyoming@hotmail.com	3073268388	77	No	Yes	Carbon
820	6/9/24 10:45:18	6/9/24 10:46:19	anonymous	Brian Gibbs	bjj3703@gmail.com	3076960370	35	Yes	Yes	Campbell county
821	6/9/24 10:50:40	6/9/24 10:51:04	anonymous	Chelsie Collier	ccollier2013@gmail.com	3072992292	34	Yes	Yes	Campbell
822	6/9/24 10:51:12	6/9/24 10:51:41	anonymous	Earl Collier	ecollier7211@gmail.com	3076961519	35	Yes	Yes	Campbell
823	6/9/24 11:03:58	6/9/24 11:04:50	anonymous	Lyndsey Bailey	Lyndsey4@hotmail.com	3076606766	42	Yes	Yes	Campbell
824	6/9/24 11:04:54	6/9/24 11:05:13	anonymous	Brian Bailey				Yes	Yes	Campbell
825	6/9/24 11:14:47	6/9/24 11:16:01	anonymous	Jo Shober	jo_shober@icloud.com	307-299-7555	71	Yes	Yes	Campbell
826	6/9/24 14:49:01	6/9/24 14:50:24	anonymous	Paul Roberts	Paul.roberts@reagan.com	307-680-3059	50	Yes	Yes	Campbell
827	6/9/24 14:52:02	6/9/24 14:53:16	anonymous	Debra Seeman	debrasee@gmail.com		64	Yes	Yes	Campbell
828	6/9/24 15:06:56	6/9/24 15:08:21	anonymous	Michele Galbraith	Mgjazz@yahoo.com	3076608238	56	Yes	Yes	Campbell
829	6/9/24 15:37:39	6/9/24 15:39:25	anonymous	Steven Humphrey	arcticatrider1954@gmail.com	307-689-0212	69	Yes	Yes	Campbell
830	6/9/24 15:40:21	6/9/24 15:41:25	anonymous	Sophia Pena			55	No	Yes	Campbell
831	6/9/24 16:23:08	6/9/24 16:25:01	anonymous	Faye Mackey	Ranch275@vcn.com	3076801219	72	Yes	Yes	Campbell
832	6/9/24 17:05:46	6/9/24 17:07:25	anonymous	Suzann Matte	gabby_matte79@hotmail.com	307-660-7820	62	No	Yes	Campbell
833	6/9/24 17:42:03	6/9/24 17:42:55	anonymous	Laura Crowe	Glmcrowe@msn.com	3076893223	50	Yes	Yes	Campbell County
834	6/9/24 18:04:49	6/9/24 18:05:18	anonymous	Tashina Garrett	Tgarrett911@yahoo.com	3072994491	32	Yes	Yes	Campbell
835	6/9/24 18:05:20	6/9/24 18:05:41	anonymous	Jeff Garrett	Jgarrett0911@gmail.com	3072992756	33	Yes	Yes	Campbell
836	6/9/24 18:09:55	6/9/24 18:11:10	anonymous	Colleen Jacobson	Colleenjacobson@protonmail.com		41	Yes	Yes	Campbell
837	6/9/24 19:04:31	6/9/24 19:05:20	anonymous	Rusty Bell	rusty.bell@transfarmillette.net	307-660-7412	50	Yes	Yes	Campbell
838	6/9/24 19:08:20	6/9/24 19:09:44	anonymous	Rick Buell	rwgebue@yaho.com	307-682-2211	71	Yes	Yes	Campbell
839	6/9/24 19:09:50	6/9/24 19:10:48	anonymous	Gloria Buell	rwgebue@yaho.com	307-752-1840	70	Yes	Yes	Campbell
840	6/9/24 20:47:36	6/9/24 20:48:53	anonymous	Jessica Peden	jessiepdn@gmail.com	3078513164	41	Yes	Yes	Campbell
841	6/10/24 2:27:34	6/10/24 2:30:42	anonymous	Bradley S. Reynolds	bsreynolds13@msn.com	307-660-5617	49	Yes	Yes	Campbell
842	6/10/24 3:30:46	6/10/24 3:32:00	anonymous	Kelly F			48	No	Yes	Sheridan
843	6/10/24 6:23:29	6/10/24 6:24:12	anonymous	Faith	Faithharvey307@gmail.com	3076600581	43	Yes	Yes	Campbell
844	6/10/24 6:43:38	6/10/24 6:44:02	anonymous	Dale Sander	dasander@msn.com	3072999878	55	Yes	Yes	Campbell
845	6/10/24 6:46:31	6/10/24 6:47:30	anonymous	Amber				Yes	Yes	Campbell
846	6/10/24 7:45:34	6/10/24 7:46:45	anonymous	Daniel Kinner	djkinner@msn.com	307-680-2447	59	Yes	Yes	Campbell
847	6/10/24 9:49:03	6/10/24 9:50:14	anonymous	P Stan Mitchem	stan@mitchem.com		75	No	Yes	Converse
848	6/10/24 10:56:22	6/10/24 10:57:26	anonymous	Michael Jarvis	mike.jarvis@navenergy.com	307-680-3862	66	Yes	Yes	Campbell
849	6/10/24 11:08:14	6/10/24 11:09:47	anonymous	Jason J. Frederick	Jason.Frederick@navenergy.com	307-685-4603	36	Yes	Yes	Campbell
850	6/10/24 11:10:42	6/10/24 11:11:26	anonymous	Stacey Peterson	staceyp@vcn.com	307-680-7433	49	Yes	Yes	Campbell County
851	6/10/24 11:24:21	6/10/24 11:25:15	anonymous	Justin Solaas	jsolaas@outlook.com	3076600365	32	Yes	Yes	Campbell
852	6/10/24 11:26:04	6/10/24 11:34:25	anonymous	Brenda Neb				Yes	Yes	Campbell
853	6/10/24 11:39:22	6/10/24 11:41:45	anonymous	Ryan Jimmerson				Yes	Yes	Campbell County
854	6/10/24 11:41:52	6/10/24 11:42:13	anonymous	Jennifer Jimmerson				Yes	Yes	Campbell County
855	6/10/24 12:07:44	6/10/24 12:08:45	anonymous	Toby Bennett	Tib_7@hotmail.com	3076896249	37	Yes	Yes	Campbell
856	6/10/24 12:14:39	6/10/24 12:16:49	anonymous	Tracey Handran	thandran44@gmail.com	307-660-5138	54	Yes	Yes	Campbell
857	6/10/24 12:37:52	6/10/24 12:39:14	anonymous	Kristi Jordan	razorcitydiva@yahoo.com	3076897999	65	Yes	Yes	Campbell
858	6/10/24 12:51:51	6/10/24 12:52:35	anonymous	Sharon M Hall	wyosharon@protonmail.com	307-213-0493	57	No	Yes	Big Horn
859	6/10/24 12:56:50	6/10/24 12:57:46	anonymous	Jason cortez	Cortezj60@gmail.com	9565515956	27	Yes	Yes	Campbell
860	6/10/24 13:10:20	6/10/24 13:11:55	anonymous	Caleb Olsen				Yes	Yes	Campbell County
861	6/10/24 13:12:30	6/10/24 13:13:45	anonymous	Mark L Rader	mark.rader@navenergy.com	406-757-4220	52	No	Yes	Sheridan
862	6/10/24 13:54:54	6/10/24 13:55:14	anonymous	Bradley thurman	Couchpillow69@gmail.com	3076220111	32	Yes	Yes	Campbell
863	6/10/24 14:06:24	6/10/24 14:06:53	anonymous	Cynthia Rogers	cyndirogers2@yahoo.com	307-680-6553	41	Yes	Yes	Campbell
864	6/10/24 14:14:27	6/10/24 14:15:23	anonymous	Gail Schwartz	schwartzhorses@yahoo.com	307-660-1199	43	Yes	Yes	Campbell
865	6/10/24 14:15:11	6/10/24 14:16:47	anonymous	Brad Grainger	Bgrain41@gmail.com	406-768-7402	49	Yes	Yes	Campbell
866	6/10/24 14:45:24	6/10/24 14:46:40	anonymous	Gerald Fischer	gfischer68@outlook.com	1(307)6609757	56	Yes	Yes	Campbell
867	6/10/24 15:27:45	6/10/24 15:28:34	anonymous	Bill Novotny, III	bnovotny@johnsoncowy.gov	3076847555	44	No	Yes	Johnson
868	6/10/24 17:23:31	6/10/24 17:24:09	anonymous	Brad				Yes	Yes	Campbell
869	6/10/24 19:50:46	6/10/24 19:51:53	anonymous	Lana Randen-Gaskins	Gaskinslana@yahoo.com	3076602943	51	Yes	Yes	Campbell
870	6/10/24 19:57:54	6/10/24 19:59:24	anonymous	Tracee R Canfield	ottermakes9@hotmail.com	785-534-2902	61	Yes	Yes	Campbell County
871	6/10/24 20:00:42	6/10/24 20:01:49	anonymous	Mia canfield	Miacanfield8@icloud.com	3076969026	22	Yes	Yes	Campbell
872	6/10/24 20:21:15	6/10/24 20:23:20	anonymous	Dan Fouch	drfouch@gmail.com	3074652232	74	No	Yes	Weston

### Campbell County Petition to Reconsider BLM Coal Leasing Ban

873	6/10/24 22:16:36	6/10/24 22:21:40	anonymous	Ben Stroud	2019 Skyview West Dr	3077527058	34	No	Yes	Sheridan
874	6/10/24 22:43:32	6/10/24 22:44:49	anonymous	Ashley Handley	Ashleyhandley1@hotmail.com	3077515159	33	No	Yes	Sheridan
875	6/10/24 23:19:53	6/10/24 23:20:31	anonymous	Amanda	amandajagow@yahoo.com	3076804898	42	Yes	Yes	Campbell
876	6/11/24 6:29:00	6/11/24 6:30:24	anonymous	Hayden Heaphy III	haydenheaphy@hotmail.com	307-751-7741	40	No	Yes	Sheridan
877	6/11/24 6:45:43	6/11/24 6:46:55	anonymous	Cori McKenney	4120 Crestfield	3076693419	43	Yes	Yes	Campbell
878	6/11/24 7:10:48	6/11/24 7:12:32	anonymous	Karen Pope				Yes	Yes	Campbell
879	6/11/24 7:12:04	6/11/24 7:12:57	anonymous	Pamela Veater	plyhandnhear@yahoo.com	3072577135	66	Yes	Yes	Campbell
880	6/11/24 8:41:32	6/11/24 8:43:28	anonymous	Keene Donley	keene.donley@navenergy.com	3077518605	38	No	Yes	Sheridan
881	6/11/24 8:52:34	6/11/24 8:53:22	anonymous	Timothy Crosby	tcrosby@simonteam.com	3072488205	42	Yes	Yes	Campbell
882	6/11/24 9:19:21	6/11/24 9:20:22	anonymous	Don Taylor	d.taylor@westoncounty.gov	307-746-8582	55	No	Yes	Weston
883	6/11/24 9:11:39	6/11/24 9:52:28	anonymous	Dylan Haddix	Dhaddix@nelbro.com	3072993587	30	Yes	Yes	Campbell
884	6/11/24 11:01:23	6/11/24 11:01:55	anonymous	Tracy Kaness	tkaness@yahoo.com	3076806890	58	Yes	Yes	Campbell
885	6/11/24 11:18:09	6/11/24 11:19:50	anonymous	Tio Winter	tio.winter@navenergy.com			No	Yes	Sheridan
886	6/11/24 11:17:51	6/11/24 11:20:08	anonymous	BRAD KOLB	hturt55@gmail.com	754-254-2136	68	No	Yes	Park
887	6/11/24 11:34:13	6/11/24 11:35:45	anonymous	Kyle Brantz	kyle.brantz@navenergy.com	3077511228	45	No	Yes	Sheridan
888	6/11/24 12:14:24	6/11/24 12:15:54	anonymous	R. Martinez			46	No	Yes	Sheridan
889	6/11/24 12:15:24	6/11/24 12:16:35	anonymous	Melodi Anderson	melodiand@icloud.com	307-751-9332	45	No	Yes	Sheridan
890	6/11/24 14:58:09	6/11/24 14:59:14	anonymous	Neena Langevin	neena.langevin1@wyo.gov	307 675 5454	50	No	Yes	Sheridan
891	6/11/24 12:21:18	6/11/24 15:08:21	anonymous	Mandy Madry	madry307@gmail.com	307-751-5146	47	No	Yes	Sheridan
892	6/11/24 21:53:14	6/11/24 21:53:54	anonymous	Jennifer McCarty			68	No	Yes	Fremont
893	6/12/24 5:18:45	6/12/24 5:19:53	anonymous	Andrew Beard	acatfishbeard@yahoo.com	307-752-1541	45	No	Yes	Sheridan county
894	6/12/24 7:40:08	6/12/24 7:41:20	anonymous	Tim Cavett	Tim.cavett@gmail.com	307-622-7899	47	Yes	Yes	Campbell
895	6/12/24 10:49:20	6/12/24 10:50:33	anonymous	Kelly Peabody	Kelly_peabody@yahoo.com	3077510102	62	No	Yes	Sheridan
896	6/12/24 11:01:39	6/12/24 11:02:38	anonymous	Aliciah Lotvedt	aliciahleu@gmail.com	3072997741	37	Yes	Yes	Campbell
897	6/12/24 13:24:41	6/12/24 13:27:02	anonymous	Tony Geffre	tony.geffre@navenergy.com	307-660-1871	63	Yes	Yes	Cambell
898	6/12/24 14:41:13	6/12/24 14:43:54	anonymous	LaVone Gentry-Bergfield	Vonniegentry1951@gmail.com	307-299-8803	72	Yes	Yes	Campbell
899	6/12/24 15:12:36	6/12/24 15:13:20	anonymous	Janet Mader	jmader@collinscom.net	207-686-6456	71	Yes	Yes	Campbell
900	6/12/24 19:13:46	6/12/24 19:14:46	anonymous	Les smith	Mallman7060@yahoo.com	3047856496	48	Yes	Yes	Campbell
901	6/12/24 22:11:41	6/12/24 22:12:51	anonymous	Dana Jennings	markSantique@yahoo.com		61	No	Yes	Sheridan
902	6/12/24 22:13:03	6/12/24 22:14:20	anonymous	Mark Jennings	markSantique@yahoo.com		63	No	Yes	Sheridan
903	6/12/24 22:43:30	6/12/24 22:44:13	anonymous	Martha Herbaugh	andymartyherb@hotmail.com	307-338-0863	50	No	Yes	Goshen
904	6/13/24 6:43:05	6/13/24 6:44:18	anonymous	Todd Turner	Turnerwelding328@gmail.com	307-689-8552	50	Yes	Yes	Campbell
905	6/13/24 7:07:00	6/13/24 7:08:09	anonymous	Loren Blakeman	lblakeman69@yahoo.com	307-655-5299	59	No	Yes	Sheridan
906	6/13/24 7:32:50	6/13/24 7:33:31	anonymous	Jay Pierce	jaypierce33@yahoo.com	3076891379	54	Yes	Yes	Campbell
907	6/13/24 10:18:37	6/13/24 10:19:12	anonymous	Holly Jennings	hjennings@sheridancountywy.gov	(307) 752-1082	38	No	Yes	Sheridan County
908	6/13/24 10:20:26	6/13/24 10:21:53	anonymous	Bruce A Coggeshall	bruce.coggeshall@navenergy.com	307-685-4534	69	Yes	Yes	Campbell
909	6/13/24 12:29:57	6/13/24 12:31:02	anonymous	Dustin Sadler	sadlerdustin@hotmail.com	3077523919	43	No	Yes	Sheridan
910	6/13/24 15:16:37	6/13/24 15:17:59	anonymous	Kerah				Yes	Yes	Campbell County
911	6/13/24 15:54:04	6/13/24 15:56:23	anonymous	Britt Fletcher	chucky196900@yahoo.com		54	No	Yes	Crook
912	6/13/24 17:28:11	6/13/24 17:29:17	anonymous	Terry Taylor	akterryt@gmail.com	907-378-9140	35	Yes	Yes	Campbell
913	6/14/24 6:53:32	6/14/24 7:00:28	anonymous	Jeb Hanson	jebhanson@gmail.com	3072211435	66	No	Yes	Niobrara
914	6/14/24 7:50:55	6/14/24 7:52:47	anonymous	Jeff Burian		307-281-2588	57	No	Yes	Crook
915	6/14/24 7:52:59	6/14/24 7:54:02	anonymous	Diana Burian		307-281-0910	50	No	Yes	Crook
916	6/14/24 8:28:45	6/14/24 8:29:41	anonymous	Criss Neiman	croziercriss@yahoo.com	3077562203	68	No	Yes	Crook
917	6/14/24 8:34:03	6/14/24 8:35:12	anonymous	Kent Neiman	Neimankent@yahoo.com	307-660-3223	67	No	Yes	Crook
918	6/14/24 9:05:07	6/14/24 9:07:26	anonymous	Ty caywood	Caywood7@gmail.com	1406-740-2034	36	No	Yes	Sheridan wyoming
919	6/14/24 10:26:23	6/14/24 10:29:09	anonymous	David Hamlin	davehamlin4@gmail.com		54	Yes	Yes	Campbell
920	6/14/24 11:24:53	6/14/24 11:25:48	anonymous	Judith	jmccullough@collinscom.net	307 756 3249	78	No	Yes	Crook
921	6/14/24 11:38:37	6/14/24 11:42:01	anonymous	Justin Gerstner				No	Yes	Crook
922	6/14/24 12:27:43	6/14/24 12:30:35	anonymous	G,H, Cork Meyer	corkmeyer@gmail.com	307 320 8378	75	No	Yes	Carbon County , Wy.
923	6/14/24 12:29:54	6/14/24 12:31:24	anonymous	Micheal Zugel	1824 Holloway Ave	3074238044	47	No	Yes	Sheridan County
924	6/14/24 12:36:44	6/14/24 12:37:44	anonymous	Patricia Norstegaard	P O Box 3692	307-660-5957	55	Yes	Yes	Campbell
925	6/14/24 12:43:09	6/14/24 12:46:04	anonymous	Cindy Boho	Kctboho@msn.com	307-267-2919	54	Yes	Yes	Campbell county
926	6/14/24 13:21:50	6/14/24 13:22:35	anonymous	Vernetta Faddis	vernfaddis1@gmail.com	307-797-4331	48	No	Yes	Carbon
927	6/14/24 15:13:32	6/14/24 15:14:46	anonymous	Pat Goyen	goyen2@vistabeam.com		81	No	Yes	Goshen
928	6/14/24 15:57:13	6/14/24 15:58:45	anonymous	Nichole Harvey				Yes	Yes	Campbell
929	6/15/24 7:55:48	6/15/24 7:56:31	anonymous	Claudia Martinson			54	Yes	Yes	Campbell
930	6/15/24 7:56:35	6/15/24 7:57:07	anonymous	Carson Martinson			20	Yes	Yes	Campbell
931	6/15/24 7:57:58	6/15/24 7:59:52	anonymous	Jim martinson	Bowties427@gmail.com	3076607485	57	Yes	Yes	Campbell
932	6/15/24 9:58:26	6/15/24 9:59:49	anonymous	Vicki Kissack	Cvkissack@yahoo.com	3076963570	52	Yes	Yes	Campbell
933	6/15/24 10:05:08	6/15/24 10:05:55	anonymous	Clark Kissack	Cvkissack@yahoo.com	3076897290	52	Yes	Yes	Campbell
934	6/15/24 10:14:59	6/15/24 10:15:59	anonymous	Howard Jones	Kohnsranchllc@gmail.com	307-391-1063	52	Yes	Yes	Campbell
935	6/15/24 12:19:57	6/15/24 12:20:54	anonymous	Kim cook	kimberly97cook@yahoo.com	3076801692	56	Yes	Yes	Campbell
936	6/15/24 12:33:40	6/15/24 12:34:51	anonymous	Cindy Willadson	hudgetscindy65@yahoo.com	3072993915	58	Yes	Yes	Campbell county
937	6/15/24 13:44:16	6/15/24 13:46:52	anonymous	Scott	Scottcook6992@yahoo.com	307 6800294	54	No	Yes	Campbell
938	6/15/24 14:00:03	6/15/24 14:03:20	anonymous	Jerry R Means	jerryrmeans@gmail.com	13076806061	71	Yes	Yes	Campbell
939	6/15/24 14:16:40	6/15/24 14:18:09	anonymous	Barbara Luthy	Barbluthy893@gmail.com	3072998148	69	No	Yes	Park
940	6/15/24 15:03:13	6/15/24 15:04:52	anonymous	Gary East	Garyleast@aol.com	307 262 8396	56	No	Yes	Converse county
941	6/15/24 15:04:38	6/15/24 15:06:24	anonymous	karrie jo tracy	karrie@vcn.com		62	Yes	Yes	Campbell
942	6/15/24 15:25:50	6/15/24 15:26:53	anonymous	Kathryn Campbell	katieleigh0202280920@gmail.com	541-216-3290	49	Yes	Yes	Campbell
943	6/15/24 16:55:57	6/15/24 16:57:20	anonymous	Leslee Smith	lesleesmith778899@gmail.com	3073188063	24	Yes	Yes	Campbell
944	6/15/24 18:41:56	6/15/24 18:43:38	anonymous	Jill Vineyard	Jill.sallee1964@gmail.com	3077465400	59	No	Yes	Weston
945	6/15/24 20:30:19	6/15/24 20:43:13	anonymous	Cheryl Aguiar	cheryl.aguiar@gmail.com	970-231-9965	67	No	Yes	Hot Springs

**Campbell County Petition to Reconsider BLM Coal Leasing Ban**

946	6/16/24 7:27:22	6/16/24 7:28:15	anonymous	Mia	MiaCanfield8@icloud.com	3076969026	22	Yes	Yes	Campbell
947	6/16/24 7:50:11	6/16/24 7:51:23	anonymous	Denise Anys	Denise54870@gmail.com	3072120048	54	Yes	Yes	Campbell
948	6/16/24 7:51:26	6/16/24 7:53:00	anonymous	Tim Anys	TACONSTRUCTION4415@GMAIL.COM	3072122318	50	Yes	Yes	Campbell
949	6/16/24 8:00:04	6/16/24 8:01:10	anonymous	Monica Rye	hiskidilly@gmail.com	3072994803	49	Yes	Yes	Campbell
950	6/16/24 8:07:17	6/16/24 8:08:26	anonymous	Glenda Edwards	Psalms1846@yahoo.com	3076892507	67	Yes	Yes	Campbell
951	6/16/24 8:18:00	6/16/24 8:19:44	anonymous	William Tibbs	Wmtibbs@vcn.com	3073593050	74	No	Yes	Converse
952	6/16/24 8:20:56	6/16/24 8:21:51	anonymous	Elisabeth Kramer	Bpwa@vcn.com	3076606362	80	Yes	Yes	Campbell
953	6/16/24 8:21:55	6/16/24 8:22:59	anonymous	Robert Kramer	Bpwa@vcn.com	3076801102	80	Yes	Yes	Campbell
954	6/16/24 8:23:24	6/16/24 8:24:12	anonymous	Brian Norstegaard	Briann@nisprocoess.com	3076609410	53	Yes	Yes	Campbell
955	6/16/24 8:24:36	6/16/24 8:26:41	anonymous	Arlan Riedieger	Arlan58301@gmail.com	3076200922	68	Yes	Yes	Campbell
956	6/16/24 9:34:44	6/16/24 9:35:18	anonymous	Kay Nannemann	katieb@vcn.com	3076605420	57	Yes	Yes	Campbell
957	6/16/24 10:51:21	6/16/24 10:52:37	anonymous	Laura Garth	Beckerlaura73@yahoo.com	307-299-1083	35	Yes	Yes	Campbell
958	6/16/24 10:52:40	6/16/24 10:53:28	anonymous	Matthew Garth	matthew.garth07@gmail.com	3072996442	39	Yes	Yes	Campbell
959	6/16/24 11:34:41	6/16/24 11:35:47	anonymous	Leyann Gomez	Leyann.gomez@yahoo.com	7209387900	72	No	Yes	Hot Springs
960	6/16/24 11:33:47	6/16/24 11:36:00	anonymous	Charlene Anderson	anderborn52@gmail.com	3072386020	71	No	Yes	Hot Springs
961	6/16/24 11:36:06	6/16/24 11:37:05	anonymous	John L Wertz	Leyann.gomez@yahoo.com	3079211675	76	No	Yes	Hot Springs
962	6/16/24 11:43:25	6/16/24 11:44:30	anonymous	Willa Hokanson	Willahoky@gmail.com	3076609118	45	Yes	Yes	Campbell
963	6/16/24 11:57:03	6/16/24 11:57:41	anonymous	Bradyn Harvey	Zeno543@hotmail.com			No	Yes	Hot springs
964	6/16/24 12:28:45	6/16/24 12:29:24	anonymous	Lucretie Ellison	ebullwinkle2@aol.com	3073719500	60	No	Yes	Sweetwater
965	6/16/24 12:28:46	6/16/24 12:29:25	anonymous	Lucretie Ellison	ebullwinkle2@aol.com	3073719500	60	No	Yes	Sweetwater
966	6/16/24 12:39:21	6/16/24 12:40:05	anonymous	Martha Tabolt	M.tabolt@hotmail.com	3073823647	65	No	Yes	Sweetwater
967	6/16/24 12:40:08	6/16/24 12:40:54	anonymous	Chester Tabolt	M.tabolt@hotmail.com	3073627118	70	No	Yes	Sweetwater
968	6/16/24 12:45:07	6/16/24 12:45:59	anonymous	Tracey Smiley	tracertracey1967@yahoo.com	3077631583	57	No	Yes	sheridan
969	6/16/24 12:46:15	6/16/24 12:47:05	anonymous	Ginger Bennett	Gyrbennett@gmail.com	307-709-7114	47	No	Yes	Fremont
970	6/16/24 12:49:35	6/16/24 12:51:08	anonymous	Kami	Kami@wyoming.com	307-840-9868	45	Yes	Yes	Campbell County
971	6/16/24 12:55:31	6/16/24 12:58:24	anonymous	Falina Hill	falinahill@ymail.com	307-921-9954	59	No	Yes	Hot Springs
972	6/16/24 12:58:33	6/16/24 13:00:06	anonymous	Joe Hill	jfhill@rtconnect.net	307-921-1103	62	No	Yes	Hot Springs
973	6/16/24 13:18:12	6/16/24 13:24:38	anonymous	Jim Causey	Guscausey@yahoo.com	407-217-1384	74	No	Yes	Park
974	6/16/24 14:32:15	6/16/24 14:33:26	anonymous	Tami Young	Aatamb@yahoo.com	307-388-2158	52	No	Yes	Washakie
975	6/16/24 15:35:38	6/16/24 15:36:33	anonymous	Teresa Strey	anteight@gmail.com	3073693655	58	No	Yes	Laramie
976	6/16/24 15:36:36	6/16/24 15:37:48	anonymous	Bill Strey	bstrey@channelcatrecording.com	3074210833	53	No	Yes	Laramie
977	6/16/24 15:47:53	6/16/24 15:48:32	anonymous	Tim Vest	wapitwalker@yahoo.com	307-321-7388	43	No	Yes	Laramie
978	6/16/24 16:01:41	6/16/24 16:03:04	anonymous	Linda Knudson	Lindamkh4@gmail.com	307-286-3447	62	No	Yes	Laramie
979	6/16/24 16:13:48	6/16/24 16:14:53	anonymous	Michele Stevens	Michele@atrustedcoach.com	3079218631	58	No	Yes	Hot Springs County
980	6/16/24 17:21:49	6/16/24 17:22:44	anonymous	Brandy	Romerobrandy30@yahoo.com	622-2151	42	Yes	Yes	Campbell
981	6/16/24 17:22:48	6/16/24 17:23:36	anonymous	Franklin	Kfsowder@collinscom.net	6708740	45	Yes	Yes	Campbell
982	6/16/24 17:27:34	6/16/24 17:28:29	anonymous	Cynthia R Corona Smart	Smartcorona5461@yahoo.com	3073894805	63	No	Yes	Sweetwater
983	6/16/24 17:28:32	6/16/24 17:30:06	anonymous	Ronald B Smart	smartrb54@yahoo.com	3073899386	70	No	Yes	Sweetwater
984	6/16/24 17:40:58	6/16/24 17:43:20	anonymous	Laura Pearson	Laura.wyconservativepatriot@gmail.com	307-350-5640	52	No	Yes	Lincoln
985	6/16/24 17:52:14	6/16/24 17:55:12	anonymous	Brenda Johnson			62	No	Yes	Natrona
986	6/16/24 18:09:49	6/16/24 18:12:35	anonymous	Pepper Ottman	Peppero@wyoming.com	307 851-7711	67	No	Yes	Fremont
987	6/16/24 18:12:33	6/16/24 18:13:15	anonymous	Shelta R Rambur	srambur@gmail.com	3077522330	47	No	Yes	Sheridan
988	6/16/24 18:26:47	6/16/24 18:28:33	anonymous	Jean M. Gray	jmpgray77@gmail.com	Na	79	No	Yes	Lincoln
989	6/16/24 18:33:00	6/16/24 18:34:13	anonymous	Kim Emmett	epluss_camp@yahoo.com		49	No	Yes	Park
990	6/16/24 19:16:56	6/16/24 19:17:56	anonymous	Candi Kusler	kuslerc@yahoo.com	970 330 0444	48	No	Yes	Laramie
991	6/16/24 19:27:01	6/16/24 19:29:30	anonymous	Roberta Cullison	rxbar611@gmail.com	3073881821	71	No	Yes	Big Horn County
992	6/16/24 19:52:29	6/16/24 19:53:27	anonymous	Dru	Palmer	307-388-2709	55	No	Yes	Fremont County
993	6/16/24 20:59:52	6/16/24 21:01:08	anonymous	Greg Larsen	gregandlori03@gmail.com	307 709 9353	61	No	Yes	Fremont
994	6/16/24 21:15:53	6/16/24 21:16:47	anonymous	Colby Gillespie	cogwyo@yahoo.com	3074862371	75	No	Yes	Fremont
995	6/16/24 22:00:11	6/16/24 22:01:25	anonymous	Kevin Smith	Kevin@llsmith.com	3078513522	60	No	Yes	Fremont
996	6/16/24 22:30:52	6/16/24 22:32:59	anonymous	Connie Dummer	faeriedust101@msn.com	3076775425	74	No	Yes	Lincoln
997	6/17/24 0:14:08	6/17/24 0:15:18	anonymous	Darin Smith	darin171@yahoo.com	307-421-8081	50	No	Yes	Laramie
998	6/17/24 4:41:25	6/17/24 4:42:23	anonymous	Jamie Thornock	jamiefreeby@hotmail.com	3077276995	60	No	Yes	Lincoln
999	6/17/24 6:21:00	6/17/24 6:23:41	anonymous	David Thien	dgtgold@ajoo.com	2099148117	72	No	Yes	Lincoln
1000	6/17/24 7:37:23	6/17/24 7:38:04	anonymous	Amy Peralta	Amyperalta400@gmail.com	307-622-7794	44	Yes	Yes	Cambell
1001	6/17/24 7:57:17	6/17/24 7:58:26	anonymous	Mari J. Arends	marends567@Hotmail.com	307-359-1916	56	No	Yes	Converse
1002	6/17/24 8:00:36	6/17/24 8:01:58	anonymous	Christine Case	christine.case@navenergy.com	3076227136	49	Yes	Yes	Campbell County
1003	6/17/24 8:07:44	6/17/24 8:09:42	anonymous	Patrick Doherty	Patdkc@vcn.com	307-660-7103	61	Yes	Yes	Campbell
1004	6/17/24 8:09:12	6/17/24 8:09:55	anonymous	Jersey hamersly				No	Yes	Hot springs
1005	6/17/24 8:15:14	6/17/24 8:16:06	anonymous	Carla M. Klopfenstein	1948 Summit Dr., Sheridan, WY	3076731183		No	Yes	Sheridan
1006	6/17/24 8:27:08	6/17/24 8:31:04	anonymous	Michael Lake	mlake.wyoming@gmail.com			No	Yes	sheridan
1007	6/17/24 8:38:18	6/17/24 8:38:59	anonymous	Nathaniel Penn	natepenn@hotmail.com	3073590577	46	No	Yes	Fremont
1008	6/17/24 8:39:47	6/17/24 8:40:43	anonymous	Mary Lake	mmlake1977@gmail.com			No	Yes	Sheridan
1009	6/17/24 8:55:10	6/17/24 8:56:46	anonymous	Shelley Causey	Shelley.causey@gmail.com	307-272-1770	72	No	Yes	Park
1010	6/17/24 9:28:59	6/17/24 9:31:28	anonymous	Bill Paulton	paultonenterprises@gmail.com	3076290580		No	No	Custer County, SD
1011	6/17/24 9:43:07	6/17/24 9:43:52	anonymous	Beau Williams	beau.williams@navenergy.com		41	Yes	Yes	Campbell
1012	6/17/24 9:46:00	6/17/24 9:46:58	anonymous	SHERRI DAVIS	teddavis@rangeweb.net	307-283-3102	60	No	Yes	Crook
1013	6/17/24 9:51:02	6/17/24 9:52:03	anonymous	Rich Parks	richard.parks@navenergy.com	3076600428	56	No	Yes	Converse
1014	6/17/24 9:56:44	6/17/24 9:57:36	anonymous	Kelsey Schloretd				No	Yes	Crook
1015	6/17/24 9:56:55	6/17/24 9:59:44	anonymous	Dalla				No	Yes	Laramie
1016	6/17/24 10:01:17	6/17/24 10:03:02	anonymous	Larry D. Danielson	danielis56@live.com	307-351-3873	67	No	Yes	Converse
1017	6/17/24 10:15:06	6/17/24 10:16:28	anonymous	James Leno	james.leno@navenergy.com	406-757-4281	50	No	Yes	Sheridan
1018	6/17/24 10:27:10	6/17/24 10:28:08	anonymous	David Wayne Alden	dalden@tegelerinsurance.com	307-461-1049	61	No	Yes	Sheridan

### Campbell County Petition to Reconsider BLM Coal Leasing Ban

1019	6/17/24 10:33:53	6/17/24 10:35:16	anonymous	Sharon Rasmussen	sharonrasmussen@yahoo.com	(307)674-6223	77	No	Yes	Sheridan
1020	6/17/24 10:36:19	6/17/24 10:38:58	anonymous	Robert C. Pooser	cpooz2022@proton.me	307-413-6423	77	No	Yes	Sheridan
1021	6/17/24 10:50:16	6/17/24 10:51:41	anonymous	Peter Nielsen	pbj910@Q.com	307-257-3612	47	No	Yes	Converse County
1022	6/17/24 10:51:01	6/17/24 10:52:07	anonymous	Jeff Morgan	jmorg638@gmail.com	3073510158	60	No	Yes	Converse
1023	6/17/24 10:53:25	6/17/24 10:55:07	anonymous	Drew Washburn	Drewwashburn2020wyo@gmail.com	9706852853	71	No	Yes	Sheridan
1024	6/17/24 11:04:18	6/17/24 11:05:07	anonymous	Sandra Beeman	sandra.beeman33@gmail.com	307-696-0078	43	Yes	Yes	Campbell
1025	6/17/24 11:09:53	6/17/24 11:10:47	anonymous	Gabriela Lopez	Gabbii1275@gmail.com	3076960189	30	No	Yes	Campbell county
1026	6/17/24 11:10:39	6/17/24 11:13:06	anonymous	Vanesa Flores	floresvanesa57@yahoo.com	3072579465	21	Yes	Yes	Campbell
1027	6/17/24 11:13:44	6/17/24 11:15:40	anonymous	Mayra Martinez	Mayralm35@gmail.com	307-299-5486	46	Yes	Yes	Campbell
1028	6/17/24 11:13:44	6/17/24 11:16:12	anonymous	Kenneth Cabral	Kenneth.cabral.30@gmail.com	970-451-6101	20	No	Yes	Campbell
1029	6/17/24 11:34:20	6/17/24 11:35:22	anonymous	Judith Helmick	cruisebrok@aol.com	307-259-1826	80	No	Yes	Sheridan
1030	6/17/24 11:41:47	6/17/24 11:42:52	anonymous	Cindy Cade				No	Yes	Sheridan
1031	6/17/24 11:45:35	6/17/24 11:46:24	anonymous	Sergio	Sergiooperalta@gmail.com	3076893408	41	No	Yes	Campbell County
1032	6/17/24 11:54:19	6/17/24 11:55:46	anonymous	James Retter	jaretter@gmail.com	307-429-2430	73	No	Yes	Sheridan
1033	6/17/24 12:02:30	6/17/24 12:03:11	anonymous	Austin Tennant	tennantam0@gmail.com	307-299-4303	29	Yes	Yes	Campbell
1034	6/17/24 12:04:02	6/17/24 12:05:14	anonymous	Stevan Bailey	Stevanbailey@gmail.com	3076969613	44	Yes	Yes	United States
1035	6/17/24 12:06:09	6/17/24 12:07:17	anonymous	Roseanne Gentry	krentry73@gmail.com	3077521989	71	No	Yes	Sheridan
1036	6/17/24 12:06:19	6/17/24 12:07:52	anonymous	Patricia M Wolfe	pwolfe@fiberpipe.net	307-672-2132	86	No	Yes	Sheridan
1037	6/17/24 12:13:32	6/17/24 12:14:32	anonymous	Fran Robinson	franmurf@yahoo.com	3073893533	Older	No	Yes	Sublette
1038	6/17/24 12:20:22	6/17/24 12:20:47	anonymous	Konnie Grabl	hubertkonnie@gmail.com	3076703376	40	Yes	Yes	Campbell
1039	6/17/24 12:20:21	6/17/24 12:21:20	anonymous	Brenda Wile	evadu@yahoo.com	4807893471	65+	No	Yes	Sheridan
1040	6/17/24 12:21:26	6/17/24 12:22:34	anonymous	Dave Wile	evadu10@gmail.com	4808747194	65+	No	Yes	Sheridan
1041	6/17/24 12:58:13	6/17/24 12:58:48	anonymous	Dona Mansell	Divedj@aol.com	815-505-6218	64	Yes	Yes	Campbell
1042	6/17/24 13:04:03	6/17/24 13:05:47	anonymous	Shawna Mckinsey	Mckinseys@vcn.com	3076899338	50	Yes	Yes	Campbell
1043	6/17/24 13:07:04	6/17/24 13:08:43	anonymous	Brad Boylan	Brad@21electricllc.com	3079411826	41	No	Yes	Weston
1044	6/17/24 13:22:22	6/17/24 13:23:58	anonymous	Jerry Neary	jneary513@gmail.com	307 389 9081	65	No	Yes	Sweetwater
1045	6/17/24 13:28:08	6/17/24 13:29:06	anonymous	Annette Rogers	Nanarogers7@gmail.com	2313940658	60	Yes	Yes	Campbell
1046	6/17/24 13:40:03	6/17/24 13:41:03	anonymous	carol Vance	cvance@cavcpa.com	307-655-8088	62	No	Yes	Sheridan
1047	6/17/24 13:41:36	6/17/24 13:42:16	anonymous	Loyd Pettegrew	loydpettegrew@outlook.com	3076558088	75	No	Yes	sheridan
1048	6/17/24 13:47:32	6/17/24 13:48:16	anonymous	Pete Driver	pdriver@vcn.com	307.660.7070	54	Yes	Yes	Campbell
1049	6/17/24 13:54:48	6/17/24 13:55:32	anonymous	Tami Rogers	Tami.k.rogers@gmail.com			Yes	Yes	Campbell
1050	6/17/24 13:58:33	6/17/24 13:59:42	anonymous	Danelle Wilkerson	dwilkerson16@gmail.com	3076800431	53	Yes	Yes	Campbell
1051	6/17/24 13:59:26	6/17/24 14:00:22	anonymous	Jessica Filcaske	htdancer21@gmail.com	307-660-0467	43	Yes	Yes	Campbell
1052	6/17/24 13:59:45	6/17/24 14:00:39	anonymous	Victor Wilkerson	vwilkerson57@gmail.com	3076800432	52	Yes	Yes	Campbell
1053	6/17/24 14:04:39	6/17/24 14:06:02	anonymous	Matt Christopherson	Newvision.tint@yahoo.com	3076601143	38	Yes	Yes	Campbell
1054	6/17/24 14:06:13	6/17/24 14:07:26	anonymous	Wanda Lieneman	dldady2@yahoo.com	307-687-1002	73	Yes	Yes	Campbell