



BLM Lander Field Office Draft RMP/EIS Comments

January 7, 2012

Wyoming Wilderness Association

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January 7, 2011

Re: Comments on the Lander Resource Management Plan Revision Project, Draft Resource Management Plan and Draft Environmental Impact Statement.

Dear Ms. Yannone:

Thank you for this opportunity to comment on the Lander Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS). The Wyoming Wilderness Association (WWA) represents 700 members across Wyoming and the United States that have a vested interest in the management of the Wind River Basin. Our constituency is made up of outdoor enthusiasts--hunters, anglers, hikers and horseback riders--that know the true value of Wyoming's landscapes. As an organization, WWA is involved in state-wide advocacy efforts to protect our last remnants of wilderness-quality lands, and voice the importance and value of both the wild places and wildlife to our state.

After reviewing the draft documents, we would like to offer the following input and comments as a part of the RMP process. Our comments will focus on management of the following areas within the planning area:

- I. Wilderness Study Areas (WSAs)
- II. Lands with Wilderness Characteristics (LWCs)
- III. Wild and Scenic Rivers (WSRs)
- IV. Areas of Critical Environmental Concern (ACECs).
- V. National Historic Trails (NHTs), etc.

Introduction

West central Wyoming is a geologically young land of sharply defined mountains and broad plains lying at the heart of the Wind River Basin. Earthquakes, volcanoes, glaciers, wind and water have all played a role in shaping this land. The Wind River Mountains form the western boundary while the Absaroka and Owl Creek Mountains stretch across the north. The Red Desert of the Great Divide Basin dominates the southern view while the eastern landscape is characterized by a grand vista fading away gently into the Great Plains.

The place names of this land tell of its geology, history and people. Crowheart Butte, Popo Agie River, Poison Creek, Fremont County, the Sweetwater River, Split Rock, Red Rock Canyon and Lysite Badlands are just a few of the descriptive names used to describe this land. Human inhabitants have been as varied

as the landscape. The Shoshoni and Arapaho tribes were among the earliest humans on this land. Mountain men in search of fur rendezvoused in the area during the early 1800's. The westward expansion of the United States flowed through South Pass at the southern end of the Wind River Mountains. From this great migration of people came soldiers, miners, cattle ranchers, and settlers, some who stayed and attempted to mold the land to their benefit. This land maintains an elevation ranging from nearly 5,000 feet to over 10,000 feet. Seasonal temperatures range from 40 degrees below zero to 100 degrees above. Precipitation averages about 14 inches a year, mostly as wintertime snows. Winds have always played a role in characterizing the Wind River Basin, exceptionally present in the winter months.

Geology, soils, water and climate have shaped the vegetation of the land and this in turn has determined the wildlife that inhabits the Basin. Cutthroat trout (*Oncorhynchus clarkia*) are abundant in the cold water streams while pronghorn antelope (*Antilocapra americana*) make up the dominant large mammal population. Elk (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*) and moose (*Alces alces*) also frequent their niches of this diverse environment. Black-footed ferrets (*Mustela nigripes*) once roamed the prairie dog colonies of this country as well. Gray wolves (*Canis lupus*) are often found in some of the more remote areas, including the Green Mountains and Wind River Valley. Waterfowl and several species of grouse are regularly sought by hunters. Raptors, neo-tropical birds and numerous perennial bird species are also critical to the ecological make-up of the entire Basin, including the surrounding forest land. This area represents a critical winter range for species which migrate annually from the surrounding high-country (BLM, 2011).

The social and economic fabric of the land has changed with the years. The shifting tides of grazing and agricultural interests; gold, coal, uranium and steel mining; developers and producers of oil, gas and wind; activities on the Wind River Indian Reservation; and timber interests have all left their mark on the land and its people. In recent years there have been significant changes in how residents of the Wind River Basin value the land.

Wyoming's population grew by 14.1% between 2000 and 2010, ranking as the 13th fastest growing state in the nation (US Census Bureau, 2011). Much of this growth can be attributed to historically low unemployment rates and economic opportunities in Wyoming. As of September 2011, Wyoming had the 5th lowest unemployment rate in the nation at 5.8% (US Department of Labor, 2011), only encouraging an influx of people aiming to take advantage of opportunities here. Much of this growth and low unemployment can be attributed to the myriad opportunities made available thanks to our federal lands. According to an Interior Department report released in June 2011, the use of federal lands in Wyoming supported nearly 130,000 jobs and generated nearly \$29 billion in economic activity, more than any other state in the US (DOI, 2011). Of these, nearly 93,000 jobs and \$26.4 billion dollars were generated by mineral activities on Department of Interior land and approximately 15,000 jobs and \$1.19 billion in revenue were generated by recreation and tourism activities on these same lands (2nd in the nation) (DOI, 2011). Interior Secretary Salazar noted that "This report demonstrates that the department also generates and supports private sector jobs and economic growth across the nation, underscoring how investing in recreation, conservation and energy development can play an important role in getting our economy moving again" (DOI, 2011). This clearly signifies the importance of balanced, scientifically-based, collaborative management across communities, economic sectors and industry and recreation stakeholders

in our state. The fantastic population growth of Wyoming and increasing economic demand on our public places only emphasizes the desperate need for conservation of the still-intact primitive landscapes that make Wyoming a steadfast example of the true wild west.

The BLM will notice that these comments reflect a desire to protect relatively large acreages of landscapes throughout the Lander Field Office. We believe that only large chunks of land can provide the foundation for outstanding quality of life as well as a diversity of wildlife in Wyoming. This quality of life is contributed to by the intact landscapes that surround many of our communities and the freedom that they provide. Healthy wildlife populations provide outstanding opportunities to maintain a hunting heritage. Healthy watersheds aid in providing for human health of our communities. Protected areas aid in maintaining healthy local economies (*see Appendix III, Headwaters, 2011*). Successful development balanced with a commitment to conservation will only strengthen the resiliency of current and future Wyomingites in an era of great economic, social and environmental change.

The Wind River and Sweetwater Basins are two of the most critically important collectors of water from the Wind River and Absaroka mountain ranges of Wyoming and the BLM wild places located here are tremendously beautiful and important. . Areas such as the Dubois Badlands, Whiskey Mountain, Lysite Badlands, Copper Mountain, Sweetwater Rocks, Sweetwater Canyon, Greer Peak and Fuller Peak, are examples of these special landscapes that represent the true heritage of our great state.

Wilderness Study Areas (WSAs)

There are currently eight WSAs in the planning area (see *Table 1*, Current WSAs in the Planning Area, Acreages, BLM-Recommended Acreage and Citizen-Recommended Acreage for Wilderness Areas”, Map 128). As noted in Section 3.7.2, p. 458 of the Draft RMP, “with the increase in demand for consumptive and non-consumptive resources, and with increased housing and subdivision development near natural and primitive areas, the WSAs preserve unique ecosystem niches that can support desired outcomes.” We believe this to be true, reason enough to continue to support the WSA for wilderness designation, and of the utmost importance in this region of Wyoming today.

Wilderness Study Area	BLM-Administered Surface Acres	BLM-Recommended Wilderness Acreage	Citizen-Recommended Wilderness Acreage (1993 WWA report)
Whiskey Mountain	519	0	6,060
Dubois Badlands	4,561	0	4,793
Sweetwater Canyon	9,135	5,538	9,135
Copper Mountain	6,936	0	6,936
<i>Sweetwater Rocks</i>			53,785
Lankin Dome	6,347	0	-
Split Rock	13,964	0	-
Savage Peak	7,178	0	-
Miller Springs	6,697	0	-
Total	55,337	5,538	80,709

Table 1. Current WSAs in the Planning Area, BLM-Recommended Acreage and Citizen Recommended Acreage for Wilderness Areas

Our original citizen’s recommendations made in 1994 stay the same today, as shown in Table 1. It is our goal to see these lands managed to permanently protect the values that make them unique.

Provisions in the Lander RMP Draft Preferred Alternative (D) that Meet the Conservation Needs of WWA with Regard to WSAs

Pursuant to Record #7022, Dubois Badlands, Copper Mountain and Whiskey Mountain WSAs are closed to motorized travel. We agree that this is an essential management strategy in order to successfully achieve management objectives for these areas.

WWA Management Recommendations/Amendments to the Lander RMP Draft with Regard to WSAs

Motorized/Mechanized Use:

WWA is opposed to any provision that would allow the use of motorized vehicles in WSAs, regardless if travel is limited to designated roads and trails (Map 128). Over-snow vehicles, despite their ability to travel in an area devoid of roads and trails, apply here as well. Pursuant to Record #7022, Alternative D,

the Sweetwater Rocks WSA Complex and Sweetwater Canyon are left open to motorized travel on designated roads and trails. Motorized travel is almost completely restricted from designated Wilderness areas. Looking into the future, many of these areas very well could be designated as Wilderness by Congress. It is the role of the BLM to assure that the wilderness characteristics of these areas are preserved and no conflicts will be allowed to influence a negative recommendation for wilderness. If and when this designation takes place, motorized travel would be almost certainly prohibited. Thus, the BLM should be good stewards of our future wilderness areas by not contributing to nonconforming uses in the WSA. Allowing motorized use in a WSA will only make BLM's management responsibilities that much more difficult should these areas be designated wilderness.

We understand that enforcement of a closure to motorized use (ex. Dubois Badlands WSA) already proves challenging as the BLM Lander Field Office has the limited presence of a single law enforcement officer (Photos 1, 2). We support the implementation of physical management structures, educational and informational kiosks, etc., in order to help manage for protective use. We believe structures implemented onsite present quite less of an impact on opportunities for solitude, primitive and unconfined recreation than the actual presence of motorized vehicles. We urge the BLM to ban motorized travel inside all WSAs in the Lander Field Office pursuant to the Lander RMP.



Photo 1. Dubois Badlands WSA OHV tracks (WGS 84 (NAD 83) UTM 12T 0613920, 4821885)

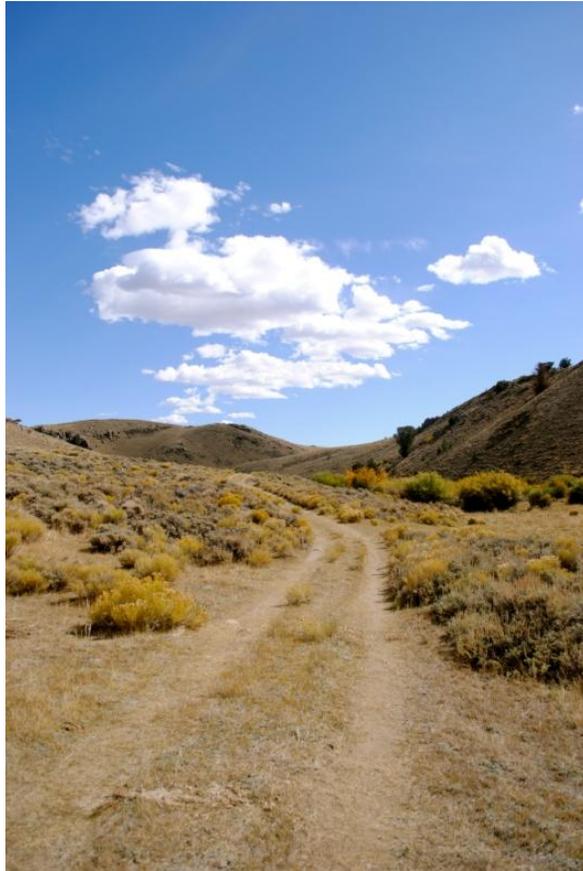


Photo 2. Sweetwater Canyon WSA two-track to canyon bottom (WGS 84 (NAD 83) UTM 12T 0708013, 4700278)

The BLM should also strongly consider prohibiting the use of mechanized travel in WSAs as this form of transportation (ex. mountain bikes) is also prohibited in Wilderness areas. Mapping and allowing for mountain bike routes on the perimeter of the WSAs should be emphasized and implemented.

Grazing:

Section 4(d)(4)(2) of the Wilderness Act states that “the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.”

A committee report that accompanies 1980 legislation designating wilderness in several western states (PL 96-560), the House Interior and Insular Affairs Committee provided comprehensive guidance on grazing in National Forest wilderness. Identical guidance for Bureau of Land Management wilderness areas was included a report that accompanies the Arizona Desert Wilderness Act of 1990 (PL 101-628).

That comprehensive guidance emphasizes that grazing should not be curtailed simply because an area is wilderness; grandfathered facilities may be maintained (including, if necessary, by using motorized vehicles); new improvements and facilities should be focused on resource protection; and motorized equipment should be used sparingly, and mostly in emergency situations or where permitted *prior to designation*.

WWA understands and believes that grazing is a compatible multiple-use within BLM Wilderness Study Areas. Grazing and ranching are minor economic drivers for the state of Wyoming but have provided livelihoods of generations of Wyomingites. Ranching and grazing are a vital part of the heritage of the Wind River Basin and the greater intermountain west. We support grazing in a sustainable state and advocate for balanced range management in all areas. In areas where grazing opportunities are lower and/or where resource damage is present and a common occurrence, management of the ecological habitat should be examined closely and amendments made in order to protect involved vegetation, water, cultural, geological and recreation resources and their accompanying values.

In the case of Sweetwater Canyon WSA, due to the concentrated riparian area impacts of long-term grazing in the area, we recommend protecting the already-fenced portion, suspending grazing in the canyon riparian zones indefinitely (fenced in the mid-1990s) as pursuant to Record #6097, Recreation Management Alternative B for the WSA. According to Section 3.7.3, p. 459-460, in the years following the 5-year closing of this fenced area to grazing, *“This management change has resulted in an overall trend of improved range condition and improved recreation experiences.”* Continuing the protection of this fenced area will also improve riparian zone health (willows, bunch grasses, etc.) along the proposed Sweetwater Wild and Scenic River (Map 129) (see WSR section). This canyon area proves a significant water source for cattle but the quality of grazing in the canyon is minimal compared to other areas. Topography poses challenges for the permittee in that it can be difficult to move cows through and out of the canyon at the end of the specific grazing rotation. Cows are forced to move through the Sweetwater River in sections as they are hemmed in by extreme slope angles of the banks (Packer, 2011).

Policy:

Under the Federal Land Policy and Management Act (FLPMA), the BLM has an ongoing duty to both inventory lands with wilderness characteristics and to make management decisions for those lands, which in some cases may lead to the protection of wilderness values in an area. See generally *Oregon Natural Desert Association v. Bureau of Land Mgmt.*, 625 F.3d 1092 (9th Cir. 2008). We encourage the BLM Lander Field Office to continue this process, to monitor and regulate for habitat health and determine if these areas are able to sustain permitted grazing action.

Lands with Wilderness Characteristics (LWCs)

As required by the Federal Land Policy and Management Act (FLPMA), section 201, the BLM must consider the wilderness characteristics on public lands as part of its multiple-use mandate in developing and revising land use plans and when making decisions (ex. the RMP process). According to the National Environmental Policy Act (NEPA), BLM offices must analyze the potential effects of proposed actions and alternatives for land use plan decisions on lands with wilderness characteristics when they are present.

According to the Draft RMP (Section 3.1.6, p.277), *“Over the last 20 years, the amount of area containing wilderness characteristics has declined. Other resource uses, such as motorized or developed*

recreation, have affected the number of areas that contain wilderness characteristics... although some portions of the planning area provide situations in which the likelihood of visitor-to-visitor contacts and development is low, the overall trend is one of increasing urbanization (BLM 2009b). This trend, in addition to the slow reclamation of disturbed areas discussed previously, indicates a potential threat to the continuation of wilderness characteristics under current management.”

In the Lander Field Office Planning Area, there are eight areas constituted as Lands with Wilderness Characteristics (see *Table 2*, Planning Area Lands with Wilderness Characteristics, BLM Recommended Acreages and Citizen Proposed Acreages, and Maps 12, 13, 14). These areas are the same areas submitted in the Citizen’s Proposal. Each is unique in its own way and we believe that, due in large part to the above quoted statement, these areas should be managed in order to protect their currently intact primitive values.

Lands with Wilderness Characteristics	BLM Recommended Acreage (Alt. B)	BLM Recommended Acreage (Alt. D)	Citizen’s Proposed Acreage
Fuller/Greer Peak	0	0	10,278
Lysite Mountain	0	0	10,219
Little Red Creek Complex	5,490	4,954	New since 1994
Whiskey Mountain	0	0	1,589 (acreage is in addition to existing WSA)
Sweetwater Rocks Complex	0	0	11,420 (acreage is in addition to existing WSA)
Copper Mountain WSA Expansion	0	0	6,858 (16 acres in addition to existing WSA)
Area North of Honeycomb Buttes, Oil Mountain & Antelope Hills	0	0	*No acreages given to the BLM. Singular general area only (Oakleaf, 2011)
Lysite Badlands	0	0	14,093
Total	5,490	4,954	59,947

Table 2. *Planning Area Lands with Wilderness Characteristics, BLM Recommended Acreages and Citizen Proposed Acreages*

Provisions in the Lander RMP Draft Preferred Alternative (D) that Meet the Conservation Needs of WWA with Regard to LWCs

Pursuant to Record #1050, we recommend managing recreational use in the Little Red Creek Complex to maintain wilderness characteristics. Also, pursuant to Record #1051, we advocate that the BLM work with partners, cooperators, tribal groups and willing landowners to pursue foot and horseback access to the Little Red Creek Complex and the Adjacent Fitzpatrick Wilderness Area (Map 13). Facilitation of this communication process with regard to access in a specific area will set a positive benchmark for NGO/Agency collaboration.

WWA Management Recommendations/Amendments to the Lander RMP Draft with Regard to LWCs

Management acreages:

We are pleased to see that the Agency Preferred Alternative (D) prescribes management to the Little Red Creek Complex that will protect its special and important values. We also commend the BLM Lander Field Office in their decision to utilize a collaborative process in decision making with regard to foot and horseback access to the Little Red Creek Complex and adjacent Shoshone National Forest land. We recommend that the BLM take advantage of the opportunity to manage all areas of this complex (Red Creek, Torrey Rim and the Glacier Trail), totaling 5,490 acres instead of the proposed 4,954 acres. We strongly believe that this management prescription will help maintain a more contiguous complex, from a logistics and management standpoint, despite the Glacier Trail being somewhat separate from the Red Creek and Torrey Rim sections.

Concurrent management of the Little Red Creek Complex as an ACEC, in order to sufficiently protect bighorn sheep seasonal migration ranges as well as its scenic values, only compliments management for its wilderness characteristics. This will be addressed further in the ACEC section of this comment document.

WWA would also hope to see consideration of the other areas within the planning area.

Management prescriptions for the Fuller/Greer Peak CPW that protect its special values are essential, especially in light of proposed future gas development in the Lysite region. Although there are numerous motorized routes, constructed roads, fences, digs, scrapes in support of mining activities, lack of screening vegetation or topography and influence of a local H₂S gas plant influence area, we recommend a possible tiered management approach to Fuller and Greer Peaks (see Appendix II, CMSMU map). The terrain of the areas makes it less than suitable for resource exploration and extraction activities. This rugged terrain does mitigate for “lack of screening vegetation” and we believe provides for more than adequate opportunities for solitude (Photos 3, 4).



Photo 3. View NE toward Fuller Peak



Photo 4. View toward Lysite from Fuller Peak Summit

According to a 1994 Citizens' Wilderness Proposal, the acreages listed in *Table 2* were found, through sound citizen science, to contain substantial wilderness characteristics. Thus, in order to maintain the values and characteristics of each area, we propose that the listed acreages for each be managed consistently with these goals in mind.

In the case of WSA expansions of the Sweetwater Rocks Complex, Whiskey Mountain WSA and Copper Mountain WSA, we ask that these additions fall under management prescriptions concurrent with the accompanying WSAs. Although these acreages are not included within the boundaries of each WSA, they retain values and characteristics consistent with each WSA. In these three areas, roads are present and results of mineral extraction, development and exploration are often present. We believe in each case that these do not preclude the areas from being considered for special management i.e., National Conservation Areas, Special Recreation Management Areas, true Wilderness Study Areas.

The Sweetwater Rocks Complex is a popular destination for rock climbers. It is also utilized by the National Outdoor Leadership School (NOLS). Access to the area is very important to the school and for regional economies. Rock climbing is an activity that is appropriate in Wilderness areas and thusly is appropriate in these areas. To our knowledge, an access agreement is in place with a private land owner who lives adjacent to the complex. It is our goal to secure access to the area for hunters that is consistent with current access. If cherry stems into the WSA requiring a developed two-track are needed in this case, we advocate to work with involved stakeholders and the BLM to develop adequate travel management plans.

The area north of Honeycomb Buttes, Oil Mountain & Antelope Hills, when added to this RMP draft, was not accompanied by acreage figures, nor was an adequate inventory of the area conducted. We ask that the BLM inventory this general area for wilderness characteristics. If wilderness characteristics are found, we ask that local stakeholders and community members have the opportunity to submit a management prescription proposal for the area.

Motorized/Mechanized Use:

Closing the Little Red Creek Complex to motorized travel is essential in moving forward with management to protect the wilderness values of the area. Limiting mechanized travel to certain routes may be possible, as the area boundaries are not completely contiguous. In the case of a cherry stem or management gap, the creation of an access easement might prove helpful when establishing collaborative partnerships in order to develop access to the Complex.

Motorized use in the Fuller/Greer Peak area should be limited to designated roads. Future possibility of closing the entire area should be considered. In limiting motorized travel to existing designated roads, it may be easier to perform closures and implement restoration efforts in the future. Extreme topography of these areas limits the ability of motorized travel in much of the region and motorized travel seems most frequent during the fall hunting season. Due to these limits, enforcement efforts should be rather minimal.

The Copper Mountain WSA expansion should be closed to motorized use. This closure would therefore implement consistent management prescription with the WSA.

Grazing:

Numerous springs, perennial streams and riparian areas exist throughout the Fuller/Greer Peak CWP complex. While recently traveling through the Fuller Peak CWP, we took note of some severe riparian damage due to the presence of cattle (Photo 5) (location WGS 84 [NAD 83] UTM 13T 0272683, 4807103). As a proliferation of springs and riparian areas exist through these zones, straight-away livestock exclosures might not be a best management practice for ensuring health riparian ecosystems here. Thus, we encourage the BLM to conduct complete and accurate inventories of streams and riparian areas in the Fuller/Greer Peak CWP complex to determine their precise location, condition, and potential for recovery if improved livestock management were to be applied.

If an interim management strategy were to be put in place, working with leases in order to develop and institute a winter grazing rotation may be a viable option. Correll (1996) concluded that rotational grazing is known to reduce impacts on riparian areas. Riparian areas should not be grazed when they are wet and most vulnerable to compaction and although this region of Wyoming is extremely dry, the terrain throughout each drainage is saturated consistently in the spring and fall months. Winter may be a time to graze while minimizing these impacts.



Photo 5. Fuller Peak CWP Riparian Area Livestock Damage (WGS 84 (NAD 83) UTM 13T 0272683, 4807103)

Wild and Scenic Rivers (WSRs)

The National Wild and Scenic River System (NWSRS) is a system of nationally designated waterways that are preserved in a free-flowing condition. Their surrounding and included environments are thus recognized for outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural and other similar values. The BLM is responsible for evaluating all waterways in the Lander Field Office in order to determine if they are appropriate and eligible for the addition to the NWSRS.

Currently, there are no Congressionally designated WSRs in the planning area. Nine of these waterways were found to have met eligibility requirements and criteria for WSR designation (*Table 3, Map*). Two of these waterways meet suitability factor criteria.

Waterway	Segment/Length (mi)	Free Flowing	Outstandingly Remarkable Values on Public Lands*	Tentative Classification	Interim Evaluation of Suitability Factors
Baldwin Creek Unit	8.1	Yes	Scenic, Recreational, Wildlife	Wild/Scenic	Suitable
Ice Slough	1.6	Yes	Historic	Recreational	Not suitable
Little Popo Agie	1.5	Yes	Scenic, Recreational and Cultural	Wild	Not suitable
North Popo Agie	0.7	Yes	Scenic, Recreational and Cultural	Wild	Not suitable
Rock Creek	4.0	Yes	Historic	Scenic	Not suitable
Sweetwater River Unit	12.9	Yes	Scenic, Recreational, Historic, Ecological	Wild	Suitable
Warm Springs Creek	1.3	Yes	Geologic, Historic	Recreational & Scenic (two segments)	Not suitable
Willow Creek	1.3	Yes	Recreational, Historic	Scenic	Not suitable
Wind River	0.5	Yes	Scenic, Geologic	Scenic	Not suitable

Table 3. Lander Field Office waterways eligible for inclusion in the National Wild and Scenic River System. (*see BLM Lander Field Office Review of Potential Wild and Scenic Rivers in the Lander RMP Planning Area, 2002 for definitions and criteria)

Provisions in the Lander RMP Draft Preferred Alternative (D) that Meet the Conservation Needs of WWA with Regard to WSRs

Pursuant to record #7027, WWA recommends the Baldwin Creek Unit and Sweetwater River Unit, identified in Table 3, as suitable for inclusion in the NWSRS. Pursuant to record #7028, waterways recommended as suitable for inclusion in the NWSRS are managed in order to protect free-flowing values, outstanding remarkable values and ensure maintenance of eligible and suitable classifications.

We also agree with the BLM's decision not to include Ice Slough, North Popo Agie, Rock Creek, Warm Springs Creek, Willow Creek and the Wind River.

Ice Slough - As Ice Slough is located within the Oregon Trail Corridor, we agree with the BLM (2002) that this location will afford adequate protection for the segment as part of the National Historic Trails system. Thus, we are confident that WSR designation would provide no foreseeable additional protection.

North Popo Agie – We understand that management of three small segments along the North Popo Agie River would prove challenging as 19% of the total length of the waterway segment flows through public lands (BLM, 2002). We do ask that the BLM consider a management strategy that will act in order to protect rock art present along the canyon walls.

Rock Creek - WWA understands that there is potential for activities to occur on the adjacent, upstream, and/or downstream state and private lands that BLM has no jurisdiction or control over and that such activities could come into conflict with WSR management prescriptions. According to the BLM (2002), there exists the potential for mining activities on upstream private lands that could impact water quality, which would be incompatible with a WSR designation. They mention that there is a reasonably foreseeable potential for development of existing mining claims which could come into conflict with a WSR designation.

We do question why the BLM mentions that “...*WSR designation is deemed unnecessary or inappropriate as other existing mechanisms sufficiently protect identified historical values. WSR designation would provide no foreseeable additional protection*” (BLM, 2002). These mechanisms do not appear clearly within the RMP.

Warm Springs Creek -As the reviewed waterway segment is located within a power site withdrawal area, WWA understands and agrees that this segment is not suitable for inclusion in the NWSRS.

Willow Creek – Similar to Rock Creek, WWA understands and agrees that the potential for activities to occur on the adjacent, upstream, and/or downstream state and private lands that BLM has no jurisdiction or control over could come into conflict with WSR management prescriptions. According to the BLM (2002), there exists the potential for mining activities on upstream private lands that could impact water quality, which would be incompatible with a WSR designation.

Wind River – Also similar to Rock Creek and Willow Creek, WWA understands and agrees that the potential for activities to occur on the adjacent, upstream, and/or downstream state and private lands that

BLM has no jurisdiction or control over could come into conflict with WSR management prescriptions. According to the BLM (2002), there exists the potential for development on upstream private lands that could impact water quality, which would be incompatible with a WSR designation. Also, we understand that, due to interspersed parcels of private land, the BLM would be unable to adequately manage the small amount of public lands involved (only 0.03 miles along the review segment) in the context of a WSR.

WWA Management Recommendations/Amendments to the Lander RMP Draft with Regard to WSRs

WWA recommends that the BLM recommend three eligible waterways within Lander Field Office boundaries as suitable for inclusion to the NWSRS. As per record #7027, Alternative D, we suggest managing each of these segments in order to maintain or enhance their current suitability and to meet listed management objectives. These objectives include: Goal SD: 7 – Protect outstanding remarkable values of eligible and suitable WSR waterway segments recommended for inclusion in the NWSRS. Objective SD: 7.1 – Maintain the outstandingly remarkable scenic, recreational, and wild values of all segments of waterways found to be eligible and suitable for inclusion in the NWSRS (Ch. 2, p.171).

Support for this comes directly from the BLM Impact Analysis Methods and Assumptions in the Draft RMP/EIS (Ch. 4, p. 1058):

- Recommending an area as suitable for inclusion in the NWSRS will result in the greatest benefit to the eligible waterways, whereas not considering suitability and maintaining eligibility will moderately benefit the waterways.
- Recommending an area as not suitable for inclusion in the NWSRS and not developing management actions to maintain eligibility and suitability will result in varying levels of impacts to the waterway. Impacts will vary based on the level of protections instituted by other programs that correspond with WSR values (e.g., cultural, recreation, visual, and wildlife resources management).
- VRM Class I or II will enhance waterways; Classes III and IV will degrade waterways.
- VRM Class I or II designations adjacent to waterways boundaries will enhance WSR values; Classes III and IV within view of the waterways (but outside of the boundary) will allow for changes to the visual environment that will impact WSR values.
- Actions that benefit primitive recreation also will benefit waterways tentatively classified as Wild.
- Limited (e.g., designated roads and trails, seasonally, and existing roads and trails) travel management decisions will not impact WSR values. Motorized vehicle closures will enhance waterways tentatively classified as Wild.
- Management actions and allowable use decisions that benefit or protect WSR values will benefit eligibility and suitability.
- Additional administrative designations such as WSAs and ACECs will benefit identified waterways, specifically in cases where the designation provides additional protections (to corresponding values) inside and outside the WSR corridor.

Of the seven waterway segments that do not meet suitability criteria, we ask that the BLM reconsider one (BLM, 2002).

Little Popo Agie - It was determined that the one public land parcel along Little Popo Agie River review segment did not meet WSR suitability factors. The BLM states that designation of the 1.89 mile segment is not sufficient enough to support identified values listed: “pristine glacial carved canyon; locally important for recreational activities such as fishing and hunting; provides opportunities for solitude; excellent examples of rock art” (BLM, 2002). Reasoning for this decision remains unclear as the BLM bases the non-suitable determination on the following:

“The public lands involved do not constitute a worthy addition to the NWSRS. The length of the review segment through public lands is not sufficient to support the identified scenic, recreational, and cultural values. The BLM would be unable to manage the small amount of public lands involved (1.89 miles along the review segment) in the context of a WSR” (BLM, 2002).

Due to this reasoning, WWA asks that the BLM reconsider suitability for the Little Popo Agie for inclusion into the NWSRS.

If these three eligible segments are not designated (Alt. C), according to the BLM, it is projected that the following impacts will take place:

Eligible Wild and Scenic Rivers	Projected Impact From Resource Use
<ul style="list-style-type: none"> • Baldwin Creek • Little Popo Agie 	Impacts from phosphate mining, oil and gas development, and wind-energy development would be within and in view of management corridors at higher rate under Alternative C than under Alternative A. In addition, the open two-track road in the bottom of Baldwin Creek would continue to degrade the wild character of this area. These impacts would eliminate values associated with these units and eventually cause the area to no longer be eligible as a WSR. This would occur at a faster rate and more drastic scale under this Alternative C than under Alternative A.

Area Management:

We understand that the Baldwin Creek Unit is located within the Lander Slope ACEC and managed in accordance with ACEC management prescription and that the Sweetwater River Unit is located within the Sweetwater Canyon WSA and managed according to the WSA Interim Management Policy. Regardless of the current management prescriptions for these two segments, WWA recommends prohibition of any activities that will diminish the free-flowing character of the waterway segments, or their outstanding remarkable values and any physical or visual intrusions on these waterway segments. This should be worked into individual management prescriptions for each segment area (Lander Slope ACEC and Sweetwater Canyon WSA).

Although, as mentioned above, the Sweetwater River Unit is managed under the WSA Interim Management Policy, we recommend that any existing mineral leases within ¼ mile of the segment be allowed to expire. With regard to the remaining 8 waterway segments, we recommend that all mineral and realty actions within at least ¼ mile of the segment are managed with Category 6 restrictions.

Water Impoundments:

For both the Sweetwater River Unit and the Baldwin Creek Unit, we suggest prohibiting water impoundments, diversions, or hydroelectric power facilities. For the other seven waterways, we ask that water impoundments, diversions, or hydroelectric power facilities be subject to full mitigation measures necessary in order to maintain or enhance the free-flowing characteristics of each waterway.

Motorized travel:

The Sweetwater River Unit and Baldwin Creek Unit should both be closed to motorized travel. We advise that, in accordance with our Sweetwater Canyon WSA management prescription recommendations, the Sweetwater River Unit should also be closed to mechanized travel as well. The Baldwin Creek Unit does not necessarily meet the all of the same criteria for WSA management, thus restricting mechanized travel within ¼ mile of the waterway would be appropriate. Implementation of a signage strategy for the corridor/buffer should be sufficient in communicating this particular closure.

Timber/Livestock Use:

In order to adequately maintain suitability of these three waterways in the planning area (managing for a reduction of sediment loading, maintenance of satisfactory riparian buffers, and the reduction of peripheral and related impacts on waterway peak flows), pursuant record #7033, we believe it necessary to close all administered lands within each waterway unit to commercial timber sales or harvesting and prohibit the cutting or removal of forest products and stand conversion-type treatments.

This also applies to livestock grazing within each of the three waterway units. We suggest intensive management of each of the nine units in terms of livestock grazing. In the case of all units, similar to record #7034, on a case by case basis, it may be appropriate to allow the construction of a range improvements that protect and/or enhance the outstanding remarkable values of the unit and does not result in adverse impacts to the wild or scenic classification.

Degraded riparian buffers are known to reduce water quality values, have negative impacts on wildlife and fish populations and contribute to bank erosion (Correll, 2003). Removal of the vegetation that composes these buffers regularly results in increased water temperatures and decreased dissolved oxygen of the waterway. Eroding banks contribute to sediment loading, as mentioned above, and often lead to a wide shallow stream with little or no habitat value. In order to maintain the values of each of the three waterway units within the planning area, as well as other waterway units within the planning area, we believe it is critical to maintain healthy riparian buffers. These listed waterways may prove useful in understanding the impacts of degraded buffers in our unique central Wyoming region. Values may extend beyond natural in this case.

VRM Classification, etc.:

Pursuant to record #7035, we recommend managing the BLM-administered lands within the Sweetwater River Unit and Baldwin Creek Unit as VRM class I. The Little Popo Agie unit should be managed as VRM class I- II. Some management activities may be appropriate in cases that classify as class II. Ultimately, we ask that these three eligible waterways in the planning area be managed in order to improve the characteristics already present so that future suitability classification may take place, resulting in their addition to the NWSRS.

Areas of Critical Environmental Concern (ACECs)

An ACEC, as defined by FLPMA, section 103(a), is an area within public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, and scenic values, fish and wildlife, and other natural systems or processes. They are also designated to protect life and ensure safety from natural hazards. Also according to FLPMA section 202 (c) (3), designation of ACECs during plan revisions is mandatory: “In the development and revision of land use plans, the Secretary shall... give priority to the designation and protection of areas of critical environmental concern.”

There are currently nine ACECs in the Lander Field Office planning area (map 130). In addition to these already present ACECs, numerous recommendations for new /expanded ACECs were submitted during the scoping process. Of the recommendations, four new proposed areas met satisfactory criteria as well as expansion areas adjacent to five existing ACECs (Table 4).

Existing ACECs	Existing Acreage	Proposed Acreage	Value(s) of Concern
Lander Slope	25,065	N/A	Fish and wildlife, scenic values, natural processes
Red Canyon	15,109	N/A	Wildlife, special status species, scenic values, geologic features
Dubois Badlands	4,903	N/A	Wildlife, soils, scenic values
Whiskey Mountain	8,776	N/A	Wildlife, scenic values
Existing ACECs & Proposed Expansions			
East Fork	4,431	7,744	Wildlife
Beaver Rim	6,421	20,532	Fish and wildlife, plant communities, scenic values, geologic features, paleontological
Green Mountain	14,612	24,860	Wildlife, plant communities
South Pass Historic Mining Area	12,576	23,439	Hazards, cultural
*South Pass Historical Landscape	N/A	124,229	Hazards, cultural
Natural Historic Trails	27,728	468,183	Scenic values, cultural
Proposed ACECs			
Continental Divide Scenic Trail	N/A	259,380	Scenic
Cedar Ridge	N/A	7,039	Cultural
Castle Gardens	N/A	8,469	Cultural
Sweetwater Rocks	N/A	152,347	Scenic values, geologic features, cultural
Regional Historic Trails and Early Highways	N/A	89,016	Cultural
Government Draw/Upper Sweetwater Sage-Grouse	N/A	1,246,791	Wildlife
[#] Twin Creek	N/A	36,302	Wildlife

Table 4. Existing and proposed ACECs in the planning area. *Proposed South Pass Historical Landscape ACEC is designated under Alt. D. The existing South Pass Historic Mining Area ACEC is contained within the boundaries of the proposed South Pass Historical Landscape ACEC. [#]Proposed Twin Creek ACEC is designated under Alt. D and is contained within the area proposed as the Government Draw/Upper Sweetwater Sage-Grouse ACEC under Alt. B.

Provisions in the Lander RMP Draft Preferred Alternative (D) that Meet the Conservation Needs of WWA with Regard to ACECs

Pursuant record #7040, we appreciate and support the retention of current ACEC acreages in the Lander Slope, Red Canyon, and Whiskey Mountain. Each of these three areas are critical with regard to sage-grouse, elk, mule deer and Rocky Mountain Bighorn Sheep and it is imperative that they retain their current specific protections. We also support the retention and 3,314 acre expansion of the East Fork ACEC. We agree that the WSA portion of the Dubois Badlands ACEC should not be designated an ACEC on its own, rather, pursuant record #7040, these 342 acres outside of the WSA should be incorporated into the East Fork ACEC in order for continuity of management logistics between the two areas.

WWA advocates designating the 36,302-acre Twin Creek ACEC as part of the Greater Government Draw/Upper Sweetwater Sage-Grouse Reference and Education Area.

Under Alternative D, the BLM would not establish the Castle Gardens, Cedar Ridge, Sweetwater Rocks, Continental Divide National Scenic Trail, and Regional Historic Trails and Early Highways ACECs, all of which would be designated under alternative B (Record # 7040, Map 131). Despite this decision not to designate these areas, these areas will be “manage[d] to protect the identified relevant and important characteristics” (Record # 7040). This is a rather important provision of the RMP. The ultimate effect should be to ensure significant protection for all of these special areas; areas the BLM recognizes meet the relevance and importance criteria for ACEC designation (DEIS, pp. 471-473). Pursuant to this provision, the BLM should ensure that it meets the absolute management direction that it specifies for each of these ACECs, notably record #s 7113 - 7140. The requirements that this specific management direction presents would generally ensure that the BLM “manage[s] to protect the identified relevant and important characteristics” in these areas.

Lander Slope ACEC

Pursuant record #7044, we recommend, in accordance with Alternative D, that the Lander Slope ACEC be managed as VRM class II. Pursuant record #7047, the prohibition of range improvement projects is not entirely necessary in this case. The construction of range improvement projects that will enhance the values of the ACEC may be necessary for the next 20 years, at which time range improvement projects may possibly be phased out, depending on resulting success.

Red Canyon ACEC

Pursuant record #7053, we recommend, in accordance with Alternative D, that the non-NNL section of Red Canyon ACEC be managed as VRM class II. In order to maintain the vitality of wildlife resources present on the ACEC, we agree that closing the area to all human presence from December 1 through April 30 and closing to vehicle use to from December 1 through June the 15th is a necessary management prescription. We understand that this may prove a logistical challenge to law enforcement, but coupled

with participation and partnership from Wyoming Game and Fish, we believe that this is a viable recommendation by the BLM.

Pursuant record #7058, the prohibition of range improvement projects is not entirely necessary in this case. The construction of range improvement projects that will enhance the values of the ACEC may be necessary for the next 20 years, at which time range improvement projects may possibly be phased out, depending on resulting success.

Whiskey Mountain ACEC

Pursuant record #7071, we recommend, in accordance with Alternative D, designating BLM-administered lands in the Whiskey Mountain area as an 8,776-acre ACEC. We also applaud the BLM decision to designate this ACEC as VRM class II (pursuant record #7072). Whiskey Mountain is an important visual resource to the Dubois area in addition to its importance as wildlife critical habitat specifically home to the largest wintering bighorn sheep population in North America, along with critical winter and transition range for elk. Due to its close proximity to Highway 287, and the town of Dubois, it is imperative that the BLM manage this area in order to maintain/enhance the present visual resource.

East Fork ACEC

As briefly mentioned in the “Dubois Badlands ACEC” section, we agree that the inclusion of 342 acres into the East Fork ACEC transferred from the Dubois Badlands ACEC. Pursuant record #7079, this would then expand the existing East Fork ACEC to 7,745 acres, granting maximum acreage resource protections. Also, we recommend, in accordance with Alternative D, closing the ACEC to livestock grazing, except for the 641 acres that are currently open for grazing, pursuant record #7081. At this point in time, we believe it necessary in some cases to construct range improvement projects where the purpose is to enhance ACEC values. It may take time before the range conditions on all East Fork ACEC acreage are sufficient in order to maintain the particular values and unique vegetation characteristics of the area, pursuant record #7082. Consistent with this recommendation, we also suggest pursuant record #7083, that on a case-by-case basis, it may be necessary to determine specific management prescriptions including livestock grazing management on newly acquired lands. Ultimately, we hope that any forage associated with these newly acquired lands be made unavailable for livestock use. This may take time, thus we agree that for the interim, decisions made on a case-by-case basis are sufficient and should not negatively impact the present or future resource condition.

Beaver Rim ACEC

Along with Alternative D, pursuant record #7090, we agree that the BLM manage Beaver Rim ACEC, in its entire current and expanded acreage (20,254 acres), to provide wildlife habitat and to protect sensitive plant species and unique plant communities present. As a unique microclimate exists here, management priorities focused on the special plant communities that are present is absolutely necessary. The presence of an unusually complete sequence of 53 million year old Tertiary deposits that are representative of the early through mid-Eocene Epoch as well as a unique geological boundary between the Wind River Basin and the Sweetwater Plateau only elevate the geologic importance of this area. Thus, WWA supports the

management prescription of the BLM, pursuant record #7091, Alternative D, to cooperate with the State of Wyoming and others to develop educational signage, driving loops and kiosks regarding the unique plant communities, unique geology and other unique visual resources.

Green Mountain ACEC

Pursuant record #7098, we agree that the entire ACEC should be managed as VRM class II. We recognize that this preferred Alternative D recommendation covers 21,389 acres (pursuant record #7096), we would like to see that recommendation extended for the entire 24,860 acre proposal (see Green Mountain ACEC section below). Pursuant record #7099, we recommend along with the BLM that the forested areas present on the Green Mountain ACEC that are available for commercial timber sales be managed to promote elk habitat rather than for the improvement of potential for salable timber. Although merchantable timber is present, we believe that the wildlife resource takes precedence in this case and should be managed for accordingly. In addition, we do not see inherent need to prohibit range improvements across the entire ACEC. Rather, pursuant record #7100, Alternative D, we recommend that range improvement projects be constructed on a case-by-case basis when the purpose is compatible with ACEC values, at the interim. We would eventually advocate for a prohibition of all new range improvement projects once the range condition on the ACEC reached a desirable and stable level.

South Pass Historic Mining Area ACEC

Pursuant record #7106, we believe that managing the entire South Pass Historical Landscape ACEC as VRM class II and on a select case-by-case basis, removing or reclaiming visually intrusive existing roads, facilities, and ROW's not necessary to attain NHT or CDNST management objectives is an appropriate strategy for the area (Alt. D). A case-by-case scenario, we believe, as an adaptive management strategy, is best suited for areas that do not currently meet a majority of specific management objectives. Pursuant record #7108, WWA agrees with the BLM in that highly visible projects and/or projects out of scale with the surrounding environment outside of 5 miles on each side of the NHTs will be authorized only if the project causes no more than a weak contrast, as defined in the BLM Resource Management. In the same vein, range projects and mineral supplementation and their associated impacts should be analyzed on a case-by-case basis in order to ensure that they conform to the VRM classification for the area, pursuant record #7109. Pursuant record #7110, from 0-5 miles on each side of National Historic Trails, new audible and atmospheric effects should not exceed current levels along NHT corridors. Ultimately, we advocate for decreasing these effects over time, in a tiered fashion. If the BLM finds it possible to set threshold guidelines for immediate effects, it should be possible to form a progressive plan for ultimately reducing these effects over the next 25 years. Finally, pursuant record #7112, we agree with the importance of developing a cultural resource protection and management plan for the South Pass Historic Mining Area, including stabilization, recreation, stewardship, and public education plans for Miner's Delight, Lemley Mill, and the BLM-administered portion of South Pass City.

Castle Gardens ACEC (Proposed)

In agreement with the preferred management action of the BLM, (Alternative D), we support the management of the BLM-administered lands immediately around the Castle Gardens site as a

cultural/recreational site of importance. Managed acreage should encompass 1,656 acres around the periphery of the original 78-acre Castle Gardens site in order to protect and enhance the cultural values of the site, pursuant record #7123. The entire site acreage should therefore be managed as VRM class II, as recommended by the BLM, pursuant record #7124. Pursuant record #7127, we agree with the BLM decision for construct range improvement projects in the periphery only when they are compatible with the area's cultural values. In order to consistently meet and uphold management objectives, this prescription appears to show better signs for success than would the prescription not allowing any range improvement projects. Finally, management on a case-by-case basis regarding livestock management of these newly acquired lands. Pursuant record #7128, marking all forage in newly acquired lands as not considered for livestock would not necessarily be beneficial to maintenance and improvement of current conditions. Ultimately, management of forage for wildlife and resource health only should be the goal, but in an adaptive management approach, WWA does not believe that this is a necessary strategy to be implemented immediately.

Sweetwater Rocks ACEC (Proposed)

WWA believes that continued management of the Sweetwater Rocks Complex as a WSA in its entirety (34,186 acres) is appropriate protection for the area. We do believe that it is critical to maintain route densities in the surrounding and encompassing 118,165 acres in order to ultimately maintain and enhance the scenic and wilderness characteristics present in the area. Pursuant record #7131, we recommend that the BLM move forward with management of the areas outside of the WSA as VRM class II, with the exception of the portion within Lost Creek ROW corridor which may be satisfactorily managed as VRM class III. In order to successfully maintain the views of the Sweetwater Rocks from Wyoming State Highway 220 and U.S. Highway 287 along with the viewshed looking out from the rocks, we believe, along with the BLM, that these VRM classifications are appropriate. Finally, we ask that the BLM determine management prescriptions, including livestock grazing, on a case-by-case basis. We suggest that these management decisions be made with balance in mind regarding all lands surrounding the Sweetwater Rocks Complex WSA, pursuant record #7133.

Government Draw/Upper Sweetwater Sage-Grouse ACEC (Proposed)

We suggest moving forward with the provision that allows for management of 306,360 acres of this area as the Government Draw/Upper Sweetwater Sage-Grouse Reference and Education Area (Map 135), pursuant record #7144. Within the area suggested, we believe it appropriate to designate 36,302 acres as the Twin Creek ACEC, as mentioned in the "Twin Creek ACEC" section. Pursuant record #7146, WWA recommends actively pursuing opportunities to reclaim existing roads and trails and ROWs not necessary to attain management objectives in order to protect greater sage-grouse and their habitats as opportunities arise. We also agree with the BLM provision, pursuant record #7147, to keep the area open to livestock grazing while at the same time managing in order to ultimately maintain or enhance greater sage-grouse habitat. We believe that construction of range improvement projects may be necessary here if and only if the purpose is, upon review, compatible with Area values, pursuant record #7149. Pursuant record #7149, WWA advocates for the limitation of vegetation treatments to those that improve and enhance sagebrush steppe habitat and that vegetation treatments in non-sage brush areas are allowed if ultimately compatible

with greater sage-grouse. Finally, we urge the BLM to, on a case-by-case basis, determine management prescriptions, including livestock grazing management, of acquired lands in the area. The ultimate goal here should be that in an adaptive management approach, forage associated with certain identified areas of these lands be managed for wildlife and landscape values, rather than livestock use.

WWA Management Recommendations/Amendments to the Lander RMP Draft with Regard to ACECs

Total Management acreages

WWA believes that all ACECs in the Planning Area should be managed for the maximum acreage allowed by the RMP. This being the case, pursuant record #7040, the Green Mountain ACEC should be retained at its current acreage (14,612) and expanded by 10,248 acres. As the Green Mountain ACEC is a critical elk winter range (it constitutes nearly all of the Green Mountain elk herd winter range), we believe that management of the maximum acreage possible is key. The BLM lists the primary management challenge of the area as energy development (DEIS, p 469). In light of a recent resurgence in the uranium market, renewed mining activities threaten the health of the Green Mountain area as a whole. As this challenge persists, this vitality of this elk herd will be dramatically and severely impacted. The same should therefore apply to the Beaver Rim area; retention at its current acreage (6,421) and expanded by 14,111 acres. Wind energy development in this critical raptor habitat. As the development of wind energy resources in Wyoming becomes more widespread, threats to the Beaver Rim are imminent. Thus, we hope to see this entire area designated an ACEC with NSO stipulations throughout.

The Congressionally Designated Trails (National Historic Trails) ACEC, totaling 27,728 acres should be expanded by the maximum acreage allowed (440,455) in order to adequately manage the cultural, scenic and historic values of each trail corridor.

We advise that the South Pass Historic Mining Area retain its current acreage (12,576) as well as be ultimately expanded by the maximum 10,836 acres. We are concerned with the preservation of cultural resources in this historically significant region and ask that the BLM take necessary measures in order to mitigate for the effects of encroaching development and any threats from looting and vandalism. We understand that the reclamation of abandoned mine sites as all hazards have not yet been alleviated. We are happy to see that this proposed expansion includes 27.15 miles of Congressionally Designated Trails. It is critical that surface disturbing activities that threaten the trail or surrounding ACEC proposal be mitigated through special management of the areas.

Lander Slope ACEC

WWA recommends, pursuant record #7045, that mineral and realty actions in the Lander Slope ACEC be managed with category 6 restrictions. In order for sufficient hunting opportunities to continue uninhibited, through the continued management of healthy habitat for elk and mule deer herds, we believe category 6 restrictions to be the best mitigation strategy. The area is also extremely visually sensitive as both Fremont County residents as well as visitors from outside the Wind River Basin regularly visit the Lander

Slope to recreate. Thus, it is imperative that the Slope be managed as both VRM class II (as aforementioned) and with category 6 restrictions.

We suggest that plant communities within the Lander Slope be managed for rangeland health, similar to current management under Alternative A, pursuant record #7046. Managing for forage for specific species may not be necessary, as we believe a more holistic approach is appropriate here.

Finally, as pursuant record #7048, we recommend managing the lands acquired and added to the Lander Slope ACEC in accordance with entire ACEC management prescriptions. On a case-by-case basis, it may be necessary to determine specific management prescriptions, including livestock grazing management on these ACEC lands.

Red Canyon ACEC

As part of the Wyoming Game and Fish Department (WGFD) Red Canyon Habitat Management Unit, representing a crucial winter range for elk and mule deer and supporting a large percentage of the South Wind River elk herd, mineral and realty actions in the Red Canyon ACEC should be managed in accordance with category 6 restrictions, pursuant record # 7054.

We suggest that plant communities within Red Canyon be managed for rangeland health, similar to current management under Alternative A, pursuant record #7056. Managing for forage for specific species may not be necessary, as we believe a more holistic approach is appropriate here. Pursuant record # 7057, we recommend that the development of an integrated pest management strategy in order to control and eradicate invasive species. This integrated approach could be implemented on a case-by-case basis, planning area-wide, as a model for other BLM field offices facing similar challenges. Care must be taken in order to minimize disturbance as invasive species recruitment and success tends to spread through regions of disturbance.

Finally, as pursuant record #7059, we recommend managing the lands acquired and added to the Red Canyon ACEC in accordance with entire ACEC management prescriptions. On a case-by-case basis, it may be necessary to determine specific management prescriptions, including livestock grazing management on these ACEC lands.

Dubois Badlands ACEC

Pursuant record #7063, we recommend that the non-WSA lands administered by the BLM be managed as part of the East Fork ACEC with the goal of contiguous management. This ACEC portion should thus be managed as VRM class II, along with the East Fork ACEC. With the same goals of contiguous management in mind, the WSA portions of the ACEC should be managed in accordance with the WSA Interim Management Policy, while mineral and realty actions of the ACEC should be managed in accordance with East Fork ACEC management policy, pursuant record #7065. With regard to grazing, we recommend range improvements and range management in the non-WSA sections of the ACEC, see “East Fork ACEC.”

Whiskey Mountain ACEC

We suggest that the BLM manage the ACEC, with regard to mineral and realty actions, with Category 6 restrictions (pursuant record #7073), in accordance with current management (Alternative A). In support of the adjacent Whiskey Mountain WSA, we advise that the BLM consider managing the ACEC as unsuitable for livestock grazing, pursuant record #7074. With this in mind, we believe it best to construct range improvement projects on a case-by-case basis, when the purpose is to enhance ACEC values. It may take time for the ACEC to achieve a range condition desirable to sustain the Bighorn Sheep herd that utilizes the area, thus prohibition of range improvement projects is not completely necessary at this juncture. Finally, as the ACEC should be eventually made off-limits to livestock grazing, it is important that forage associated with the newly acquired ACEC lands not be made available and managed for livestock grazing.

East Fork ACEC

Pursuant record #7080, with the ultimate desire of maintaining a consistent management strategy throughout the Dubois Valley and in order to prevent habitat fragmentation and loss, we recommend that, with regard to mineral and realty actions, the ACEC be managed with Category 6 restrictions. As a section of the ACEC is managed as part of the Inberg/Roy Wildlife Habitat Management Area and supports one of the largest elk herds in the state not assisted by state or federal feed grounds, managing for Category 6 restrictions is critical. This is of a heightened importance due also in large part to the fact that the proposed expansion of the East Fork ACEC would include land in the Spence/Moriarity Wildlife Management Area.

Beaver Rim ACEC

Pursuant record #7087, we recommend designation of the BLM-administered lands in Beaver Rim as a 6,421-acre ACEC, while also expanding its acreage by 14,111 acres, totaling a contiguously managed ACEC of 20,254 acres. WWA suggests managing the entire acreage (current and proposed expansion) as VRM class II, pursuant record #7088. Some of this acreage may immediately require management as class III and could be addressed on a case-by-case basis. We believe that the visible nature of the horizontal features of Beaver Rim make both VRM classification and mineral/realty restrictions of utmost importance. We recommend that the BLM manage the entire ACEC with Category 6 restrictions, pursuant record #7089. Finally, pursuant record #7093, we suggest that the BLM, on an interim basis, prescribe management prescriptions for livestock grazing on a case-by-case basis until a desired range condition consistent with the special values and characteristics of the Beaver Rim is achieved?.

Green Mountain ACEC

Pursuant record #7096, WWA suggests that the Green Mountain ACEC be designated at its current acreage (14,612 acres) as well as expanded by 10,248 acres, totaling acreage of 24,860 acres. We believe that the presence of the Green Mountain elk herd crucial winter range qualifies a need for extensive management. Present, unique meadow wetland complexes, resulting from a proliferation of beaver dams in the area, make up significant plant communities that we would like to see managed for. Thus, WWA

recommends designation of all 24,860 acres. In order to maintain and improve current conditions on the Green Mountain ACEC, we believe, pursuant record #7097, that mineral and realty actions in the expanded ACEC are managed with category 6 restrictions. Keeping the area closed to oil and gas leasing and locatable minerals is critical to the current resource condition. The area has historically been subject to intensive uranium exploration and development, and to some extent, oil and gas exploration and development. As these markets in Wyoming are both experiencing a resurgence, we feel that the need to mitigate for past impacts and protect for potential future impacts is of vast importance. Thus, the category 6 restriction is justified. We acknowledge the presence of common grazing allotments in the Green Mountains and recognize the importance of grazing in this region. Thus, where appropriate, on a strict case-by-case basis, we suggest that it is satisfactory to make management prescriptions that include livestock grazing management. This should be subject to extensive review. An umbrella policy of managing forage in newly acquired lands as not available for livestock use should be implemented, pursuant record #7101 with tight parameters regarding livestock management, as aforementioned.

South Pass Historic Mining Area ACEC

Pursuant record #7105, WWA suggests that the original 12,576 acre South Pass Historic Mining Area ACEC be located within the newly designated South Pass Historical Landscape ACEC, similar to Alternative D. Although we recommend that the existing acreage be expanded by 10,863 acres within the SPHL ACEC, creating a designated area encompassing 135,092 acres. For the entire acreage of the South Pass Historical Landscape, we recommend that in order to preserve and improve conditions of the current landscape, mineral and realty actions should be managed with Category 6 restrictions. Geophysical exploration and exploration for locatable minerals should be prohibited throughout the ACEC in order to preserve and improve landscape, vegetation and geological conditions, pursuant record #7107. Finally, we would like the BLM to develop and implement fire and fuels management to reduce fire danger, hazard and risk in the WUI, ultimately taking into consideration both wildlife and visual resources, where appropriate, pursuant record #7111 (NWCG, 2011).

Cedar Ridge ACEC (Proposed)

Cedar Ridge is a critical cultural resource site for numerous regional tribes, the Eastern Shoshone in particular. We believe that due to development threats to the fragile nature of this prehistoric archeological resource and its importance as an age-old ceremonial and cultural site merits sufficient protection in perpetuity. Pursuant record #7115, WWA recommends that all of the BLM-administered lands in the Cedar Ridge area be designated a 7,039-acre ACEC. We believe that contiguous management will allow for management consistency and minimize any management discrepancies across the area. It is important to designate the maximum acreage here to insure that disturbances and threats to the traditional cultural importance of the site will be prevented. Management of the entire area as VRM class II, pursuant record # 7116, must also take place in order to align with management objectives there. In addition, in alignment with management objectives, we recommend that all 7,039 acres be managed, with regard to mineral and realty actions, with Category 6 restrictions, pursuant record #7117. Range improvements must be examined, and if necessary in order to maintain or improve ACEC characteristics and values, be authorized on a case-by-case basis, pursuant record #7118. Pursuant record #7119, on a case-by-case

basis, management prescriptions should be determined that consider livestock grazing in appropriate areas. In a graduated approach, consideration for livestock use when managing forage should be phased out in newly designated lands, possibly over a 25-40 year period. Finally, pursuant record #7120, we suggest completing an archeological inventory of the entire acreage of the ACEC and that a comprehensive management protection plan be developed in conjunction with the Casper Field Office and Eastern Shoshone Tribe.

Castle Gardens ACEC (Proposed)

In the Castle Gardens Special Management Area, WWA recommends that with regard to mineral and realty actions, Category 6 restrictions be implemented throughout the core 78-acre section and Category 5 restrictions implemented in the peripheral 1,656-acre additional unit, pursuant record #7125. We believe this to be necessary in order to adequately achieve resource objectives identified by the BLM. Energy and mineral development threatens the fragile archeological resources of the area and required infrastructure could degrade what are numerous Eastern Shoshone sacred areas and increase management challenges related to vandalism.

Sweetwater Rocks ACEC (Proposed)

As there are imminent threats to the geological and cultural resources and wilderness characteristics present in the complex, we suggest that the BLM implement Category 5 restrictions in 118,165 acres surrounding the WSAs. The BLM recommends restrictions more aligned with Category 2. We believe that in order to maintain VRM classification requirements that NSO is critical and closing the area to any locatable mineral exploration and extraction is key. The BLM has suggested that merchantable minerals, namely uranium ore deposits are found within the complex. In order to prevent the possibility of surface-disturbing activities associate with development of this resource, mineral and realty Category 5 restrictions are warranted.

Government Draw/Upper Sweetwater Sage-Grouse ACEC (Proposed)

Pursuant record #7145, WWA urges that BLM to manage the entire Reference and Education Area, with regard to mineral and realty actions, with Category 6 restrictions. BLM should thus, not re-offer for lease expired existing oil and gas leases, except if necessary to provide drainage protection. As the goal of this Reference and Education Area is to provide for what is mentioned in its name, we believe that it would be counterintuitive to manage mineral and realty actions with any less than Category 5 restrictions. Opening the area to locatable minerals and re-offering for lease-expired existing oil and gas leases may compromise the ability of the area to act as a functional scientific control. The BLM mentions that this area has one of the greatest densities of male greater sage-grouse per square mile in Wyoming and is considered to be an important component in the conservation of greater sage-grouse throughout its range. We believe that this is a unique opportunity for a relatively intact ecosystem in Wyoming act as a scientific laboratory while maintaining all of the values and characteristics that qualify it as an Area of Critical Environmental concern.

NHTs, etc.

The Heritage Tourism and Recreation Management Corridor

A Heritage Tourism and Recreation Corridor, with buffers, would be established along much of the course of the National Historic Trails and the Continental Divide National Scenic Trail (Map. 127).

This Heritage Tourism and Recreation Management Corridor's cultural significance is outstanding. Sights including Sixth Crossing, Martin's Cove and Rock Creek Hollow all share critical importance to members of The Church of Jesus Christ of Latter Day Saints. Independence Rock, Devil's Gate and Split Rock hold significance with regard to the story of the Pony Express and trials and tribulations of the Oregon Trail. These select number of sites are few in a collection of many that reside along the HTRMC. In the west, this is one of the last relatively undeveloped Trail corridors in existence. In order to maintain this outstanding, unique and special resource, WWA believes that establishing sufficient buffer/non-development zones is necessary.

Hunters regularly take advantage of the area as it is a popular, currently undeveloped and generally healthy wildlife habitat. Much of the corridor stretches across sage-grouse core habitat. Oil and gas development potential across the entire swath of the Corridor is "none" to "low" (Map 17). Thus, we suggest that in this case, the visual, cultural and biological resources outweigh the mineral resource of the area.

Pursuant record #2008, this corridor should be NSO for five miles on either side of the trails, in all sections of the management area. We believe that this is necessary in order to maintain VRM classifications and mitigate for future development threats to this culturally important corridor. Unfortunately, the BLM, under the proposed RMP, would designate the above-mentioned narrow one-quarter mile buffer along the Continental Divide Scenic Trail in what is referred to as the CDNST ERMA ("Continental Divide Scenic Trail Extensive Recreation Management Area") (Record # 7003). This buffer is far too narrow to protect the values and resources along this section of the Continental Divide National Scenic Trail. A 5-mile buffer with the related management provisions should be put in place along the entire length of this scenic hiking trail, as applies in other areas of the Heritage Tourism and Recreation Management Corridor. At a minimum the BLM should propose a management framework for the CDNST ERMA that corresponds with its stated goals for the Congressionally Designated Trails. A goal is that the Continental Divide Scenic Trail corridor will be maintained "to provide an opportunity to experience and reflect upon the wide variety of scenic, cultural, historic, and physiographic setting characteristics. . ." of the trail and adjacent lands. Goal SD: 2. To meet this goal the BLM should put in place a buffer around all of the Continental Divide Scenic Trail that is equivalent to the 5 mile buffer along other sections of the Heritage Tourism and Recreation Management Corridor.

Dubois Valley NSO

We applaud the BLM in their recommendation to protect the concentration of special status species and their habitats, utilizing mineral and major realty actions in the Dubois area not included in a WSA or an

ACEC. This involves, pursuant record #4108, closing the area to oil and gas leasing, geophysical exploration, phosphate leasing, and mineral material disposals. As displayed in map 17, oil and gas potential in the area is “none” to “low.” WWA believes this as a perfect example of Multiple Use put into play and is a necessary action in order to meet resource objectives. We note that not every use is appropriate on every landscape. This displays a decision based upon the important personal, scientific and economic value of wildlife to the community members of the Dubois Valley.

Beaver Rim MLP

The provision for developing the Beaver Rim Master Leasing Plan (MLP) would be an important contribution to conservation of the Beaver Rim Area. WWA supports the provisions pursuant record # 2027 that would limit surface disturbance to no more than 5 percent in a township, seek to co-locate new disturbance if possible, and which would require that new disturbance be at least 1.2 miles from existing disturbance. These provisions will go far toward protecting the highly significant wildlife, geologic, scenic, paleontological and cultural resource values in the Beaver Rim area.

Wyoming Game and Fish Documents

We recommend that the BLM to adopt the provision stating that they (the BLM) will “utilize recommendations” found in the WGFD’s oil and gas development mitigation document and its wind energy wildlife protections document, both of which are extremely important and we congratulate BLM for including this provision (Record #4051).

VRM Classifications

We strongly support the provision pursuant record #5034 stating that BLM will “Prohibit surface-disturbing activities within important scenic areas (VRM Class I and II visual resources)” (Map 78). There is no doubt that all WSAs as well as the Dubois and Lander, Beaver Rim and Sweetwater Watershed areas (a significant portion of the VRM Class I and Class II areas) are all “important scenic areas.”

The Bus at Baldwin Creek/Johnny Behind the Rocks

We support the provision that would close the Bus at Baldwin Creek and the Johnny Behind the Rocks areas to motorized travel, pursuant record #6040. These are key recreation attractions in the Lander area and are of tremendous value and benefit to local citizens including equestrian users, mountain bikers, hikers and birders. Thus, these areas should be protected from the potentially destructive and disruptive disturbance that motorized vehicles and motorized vehicle use can cause.

Energy Development

Provision is made for the consideration of “paced development” options for mineral and energy development so as to avoid adverse socioeconomic impacts, pursuant record #8014. This is a beneficial provision; however, it should be expanded to include avoiding impacts to natural resources and values, as well as socioeconomic conditions. The BLM is a multiple use agency and its primary area of expertise

relates to natural resources, not socioeconomics, so it should focus attention on paced development as it relates to the impacts of mineral and energy development on natural resources, not just socioeconomic conditions. Paced (or phased) development has many potential benefits, such as ensuring that before new areas are disturbed previously disturbed areas are reclaimed, limiting the area of disturbance at any one time, and allowing for “adaptive management” as new information and techniques are gleaned from earlier development.

Tribal Consultation

The provision in Record # 5011 that tribes will be consulted relative to cultural resources that are important to them is very important and should be fully implemented, as should the provision that tribally important sites, areas, and resource will be protected whenever possible.

Conclusion

Once again, on behalf of the Wyoming Wilderness Association Board of Directors, staff and members, I wish to thank you for the opportunity to publicly comment on this Draft Resource Management Plan/Environmental Impact Statement. Please contact us if you should have any questions or seek clarification on any of the included comments.

Regards,

Anthony Ferlisi

WWA BLM Outreach Coordinator

Cc: BLM State Director Donald Simpson

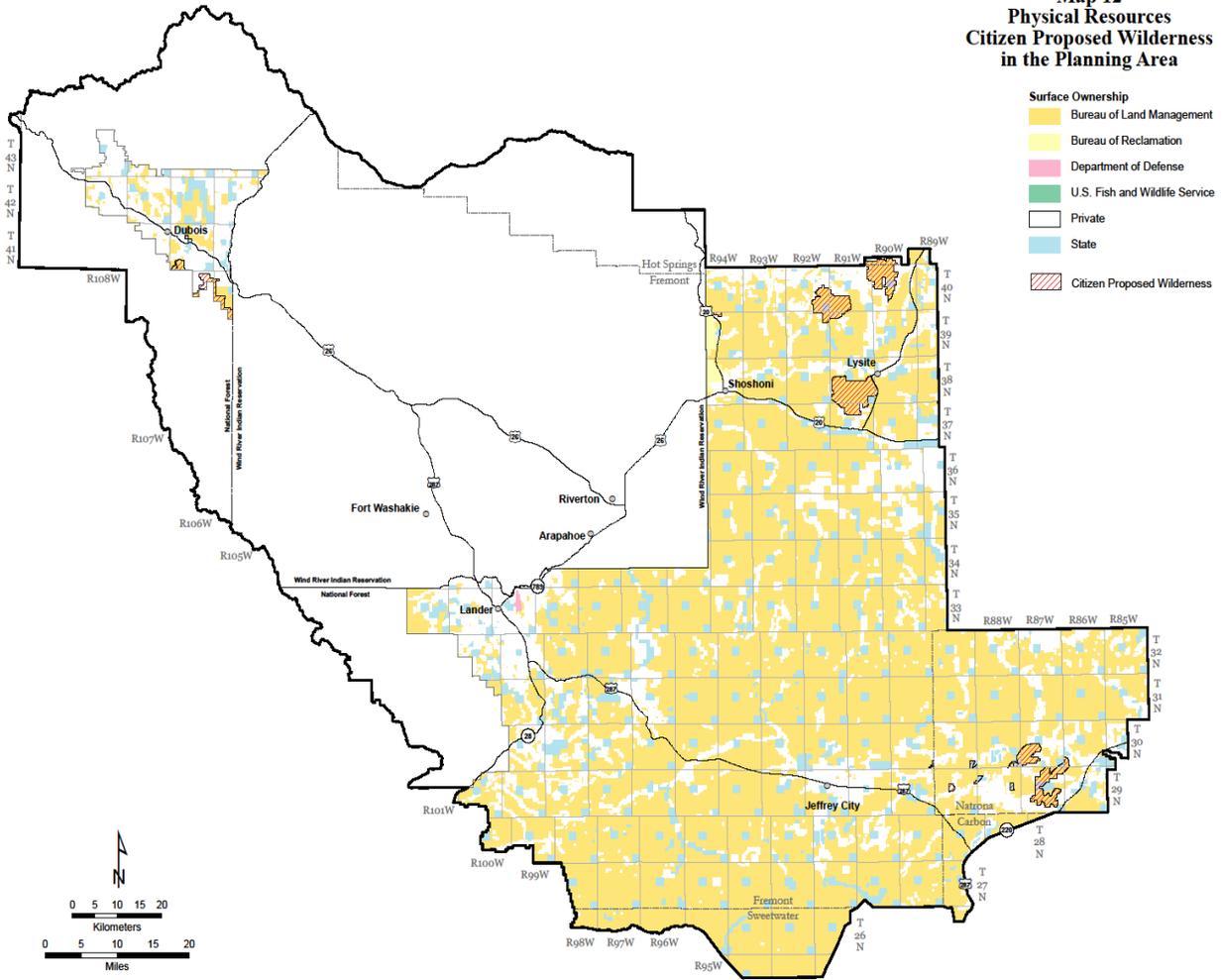
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Appendix I

Maps

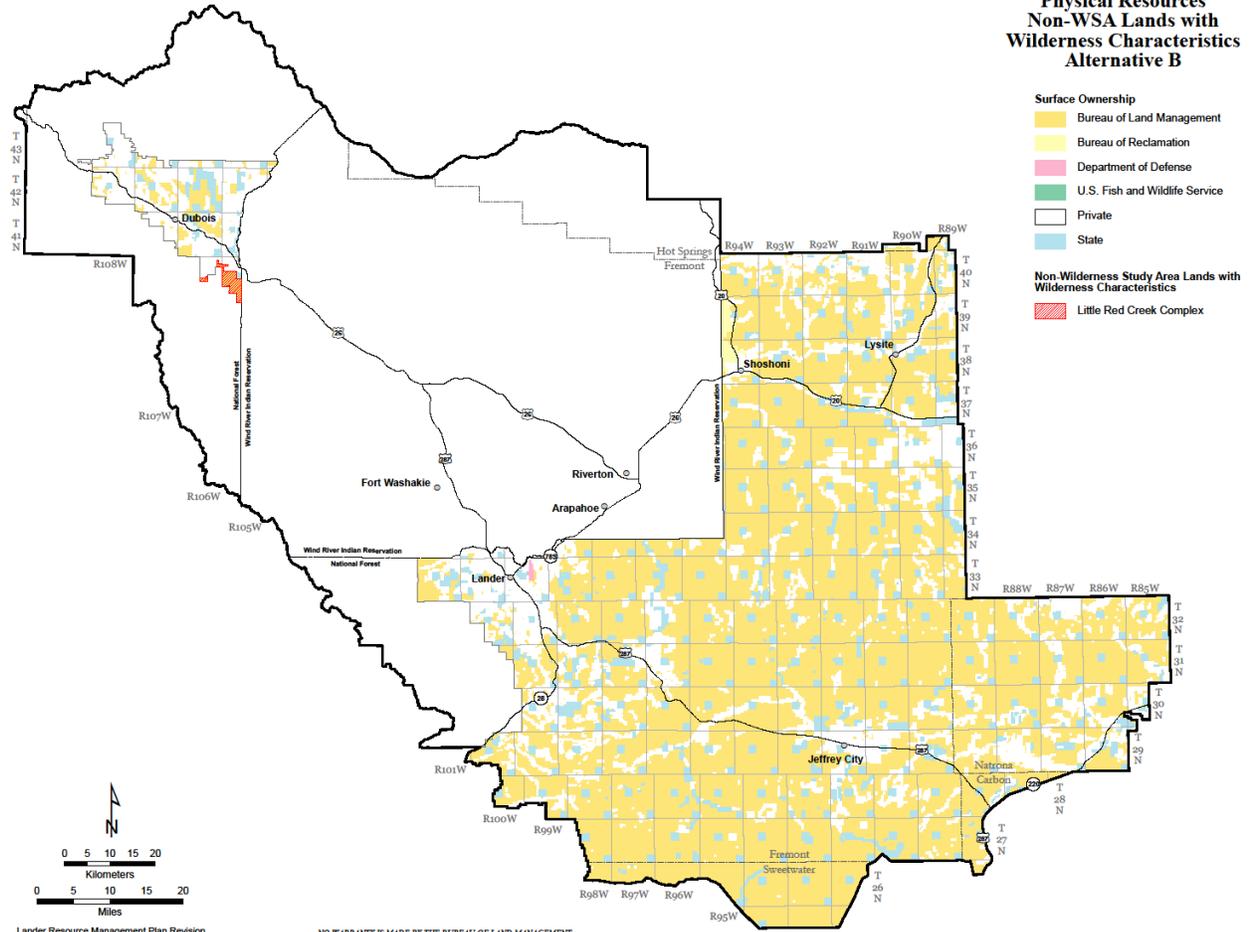
Map 12 Physical Resources Citizen Proposed Wilderness in the Planning Area



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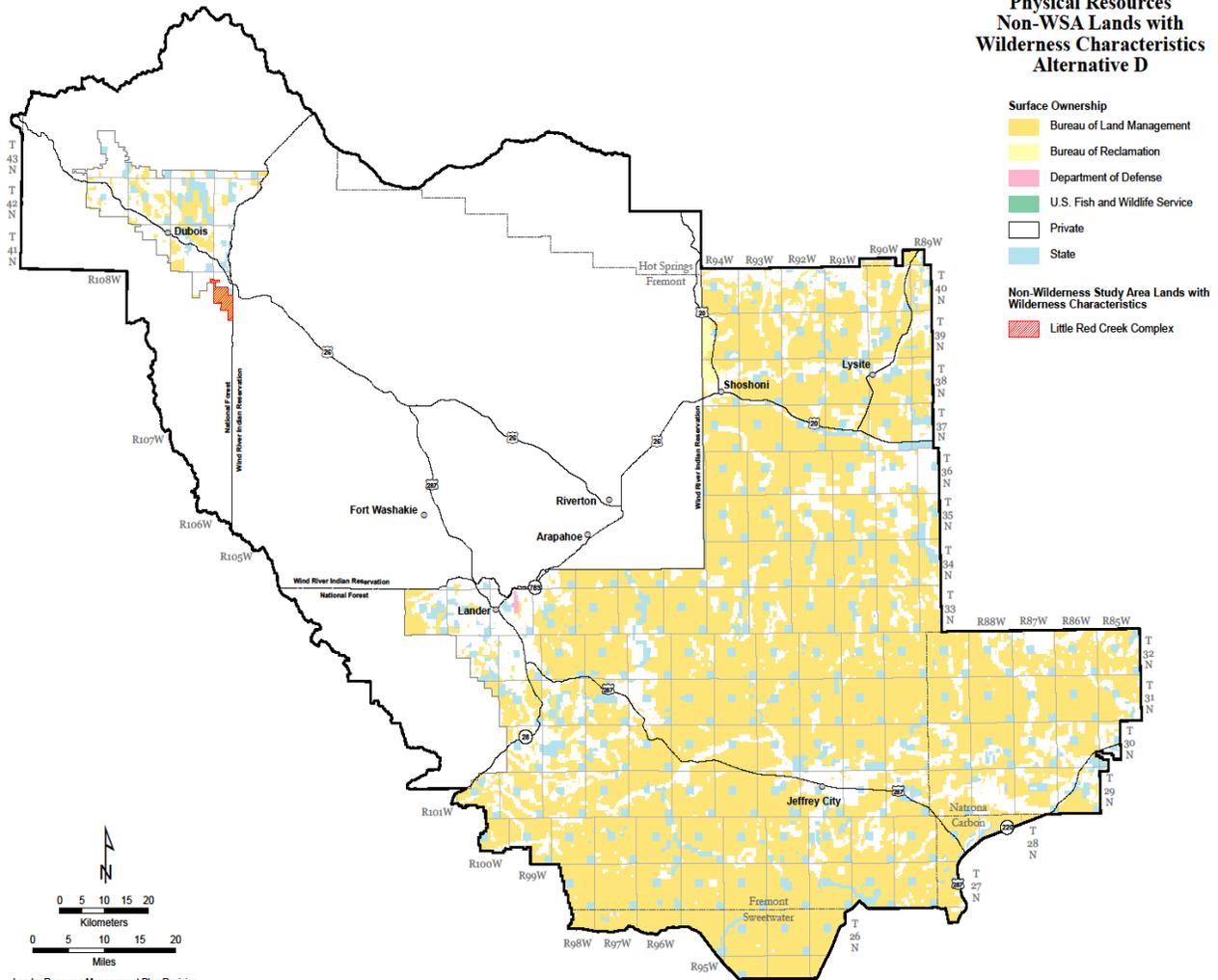
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**Map 13
Physical Resources
Non-WSA Lands with
Wilderness Characteristics
Alternative B**



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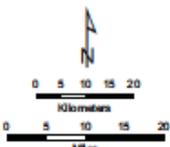
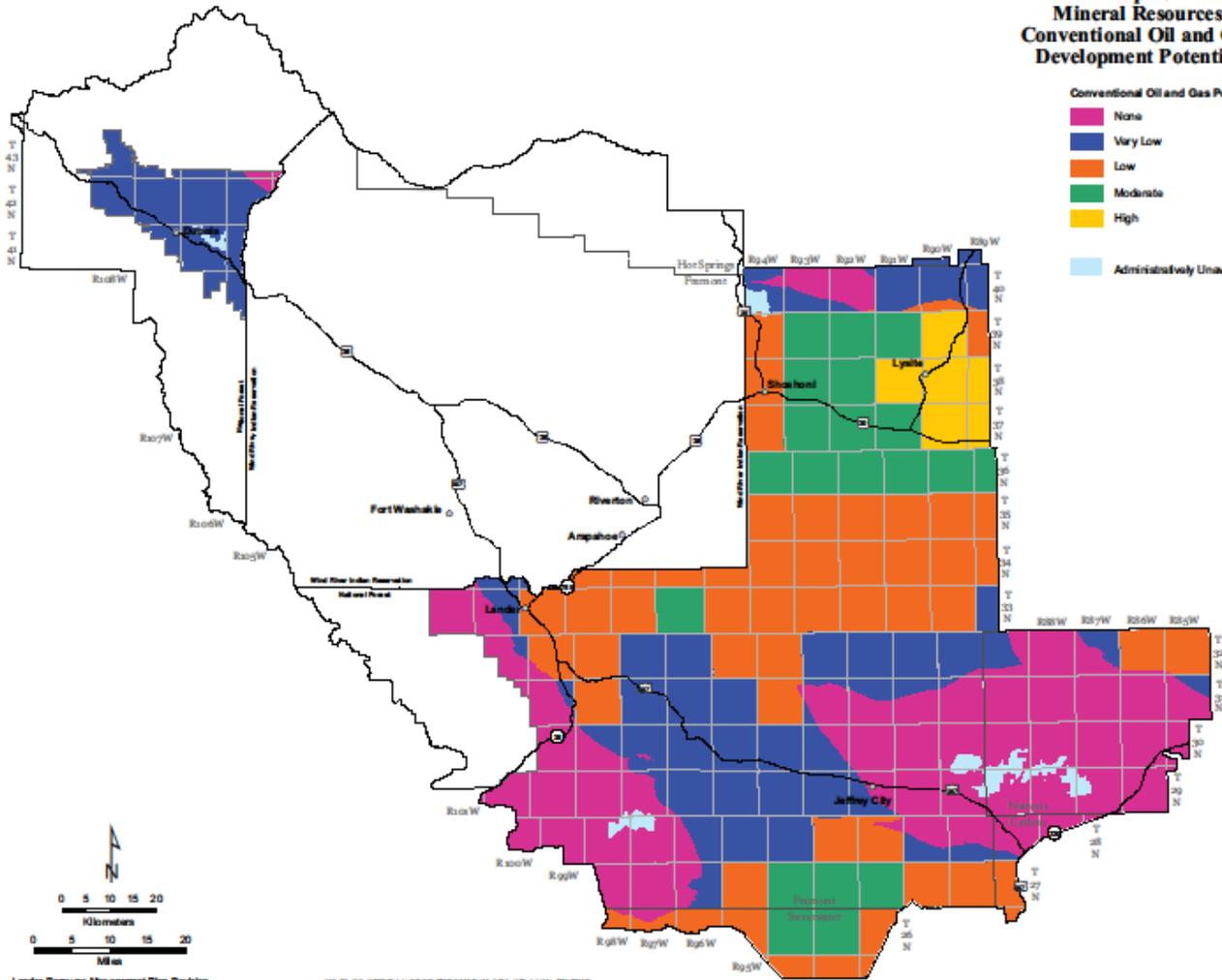
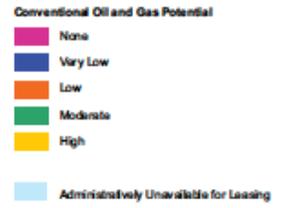
**Map 14
Physical Resources
Non-WSA Lands with
Wilderness Characteristics
Alternative D**



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**Map 17
Mineral Resources
Conventional Oil and Gas
Development Potential**

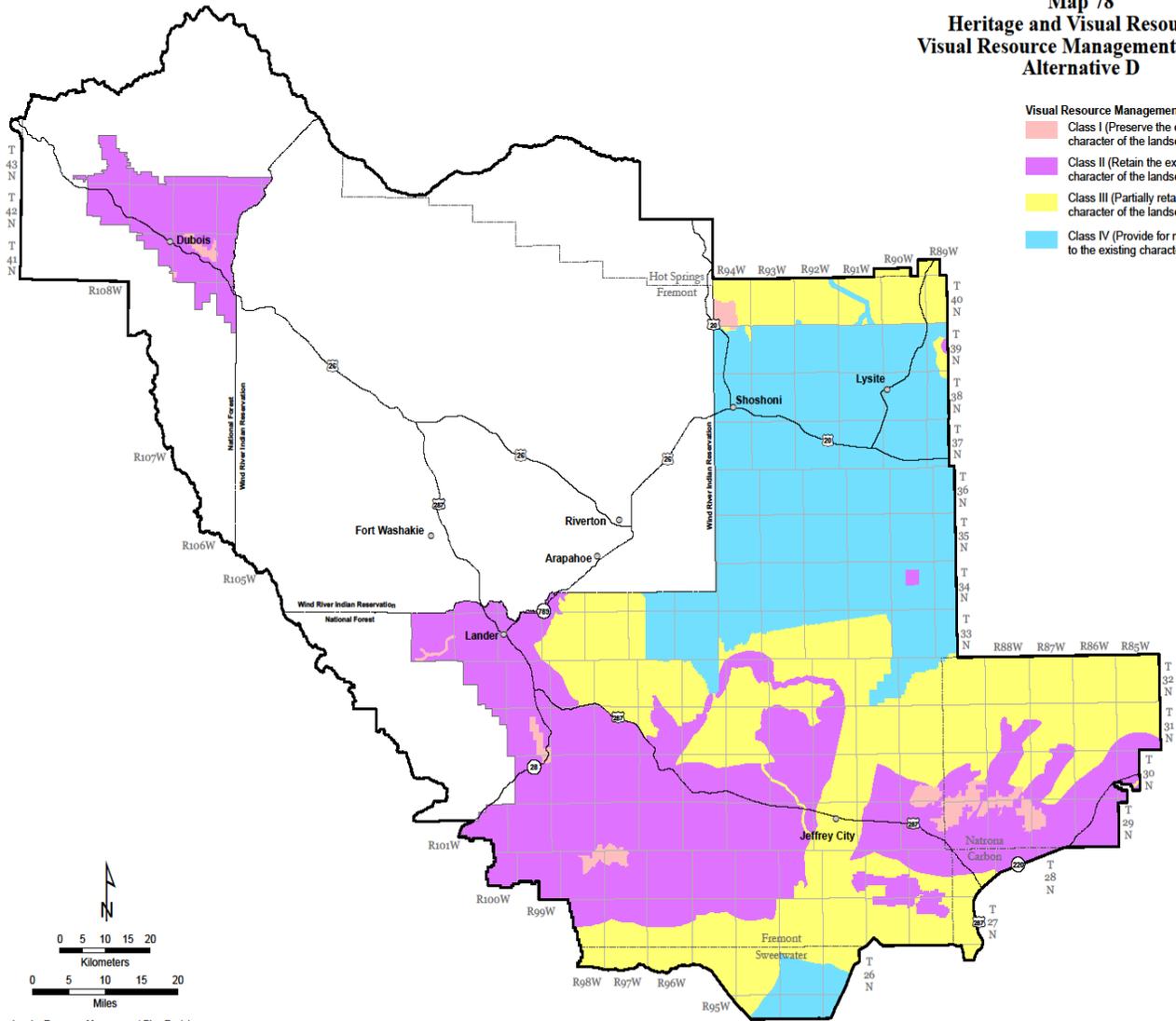


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Map 78 Heritage and Visual Resources Visual Resource Management Classes Alternative D

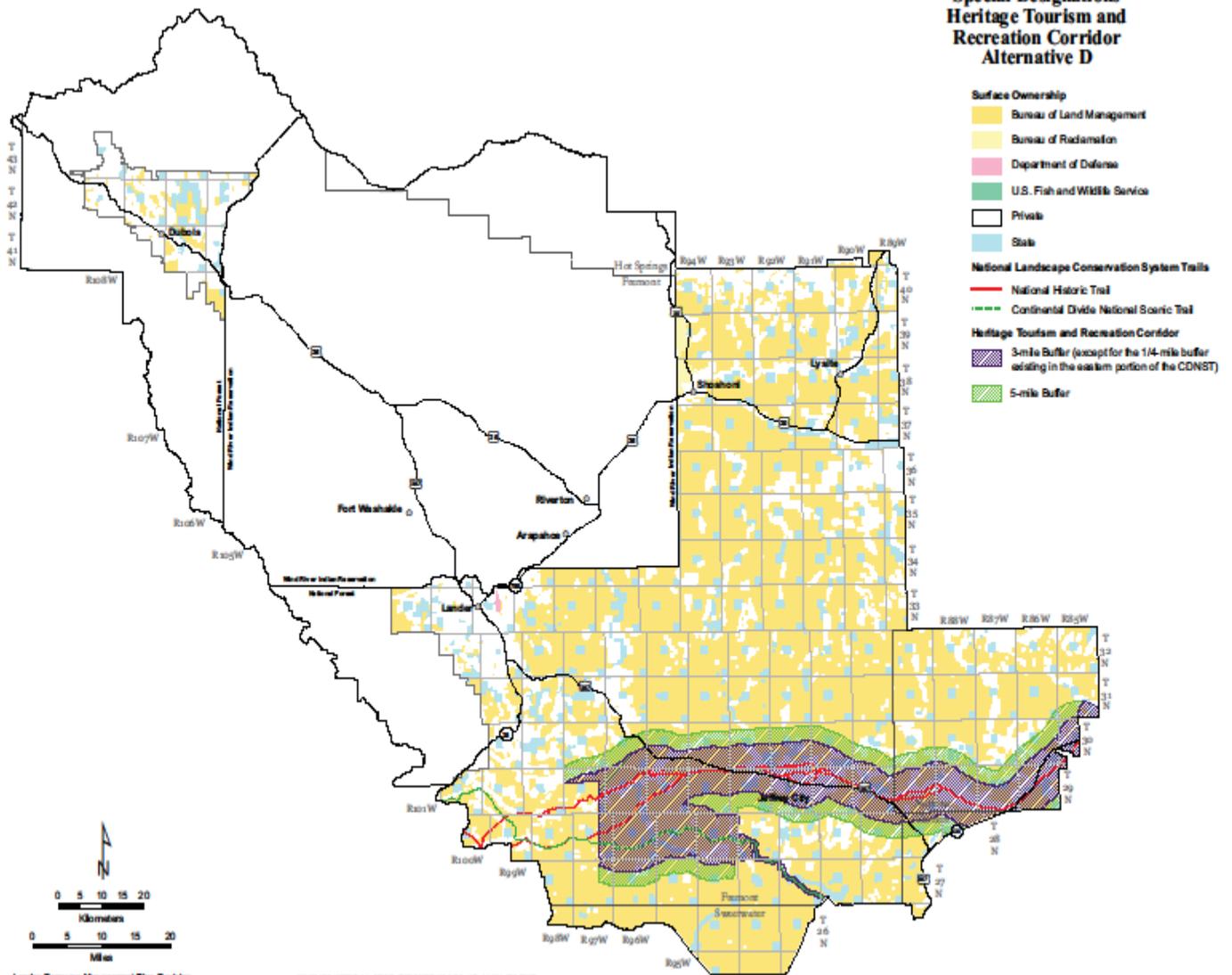
- Visual Resource Management Class**
- Class I (Preserve the existing character of the landscape)
 - Class II (Retain the existing character of the landscape)
 - Class III (Partially retain the existing character of the landscape)
 - Class IV (Provide for major modifications to the existing character of the landscape)



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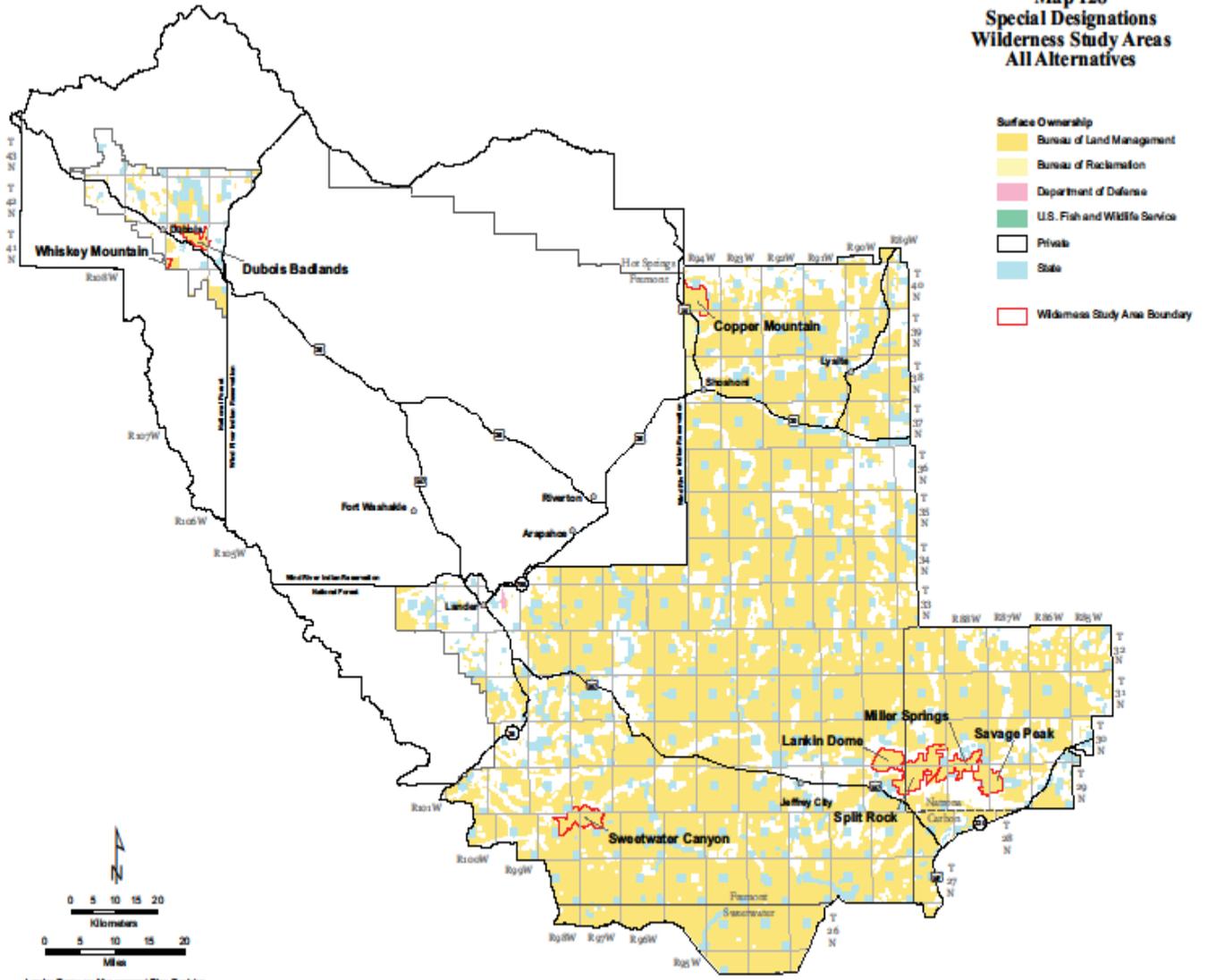
**Map 127
Special Designations
Heritage Tourism and
Recreation Corridor
Alternative D**



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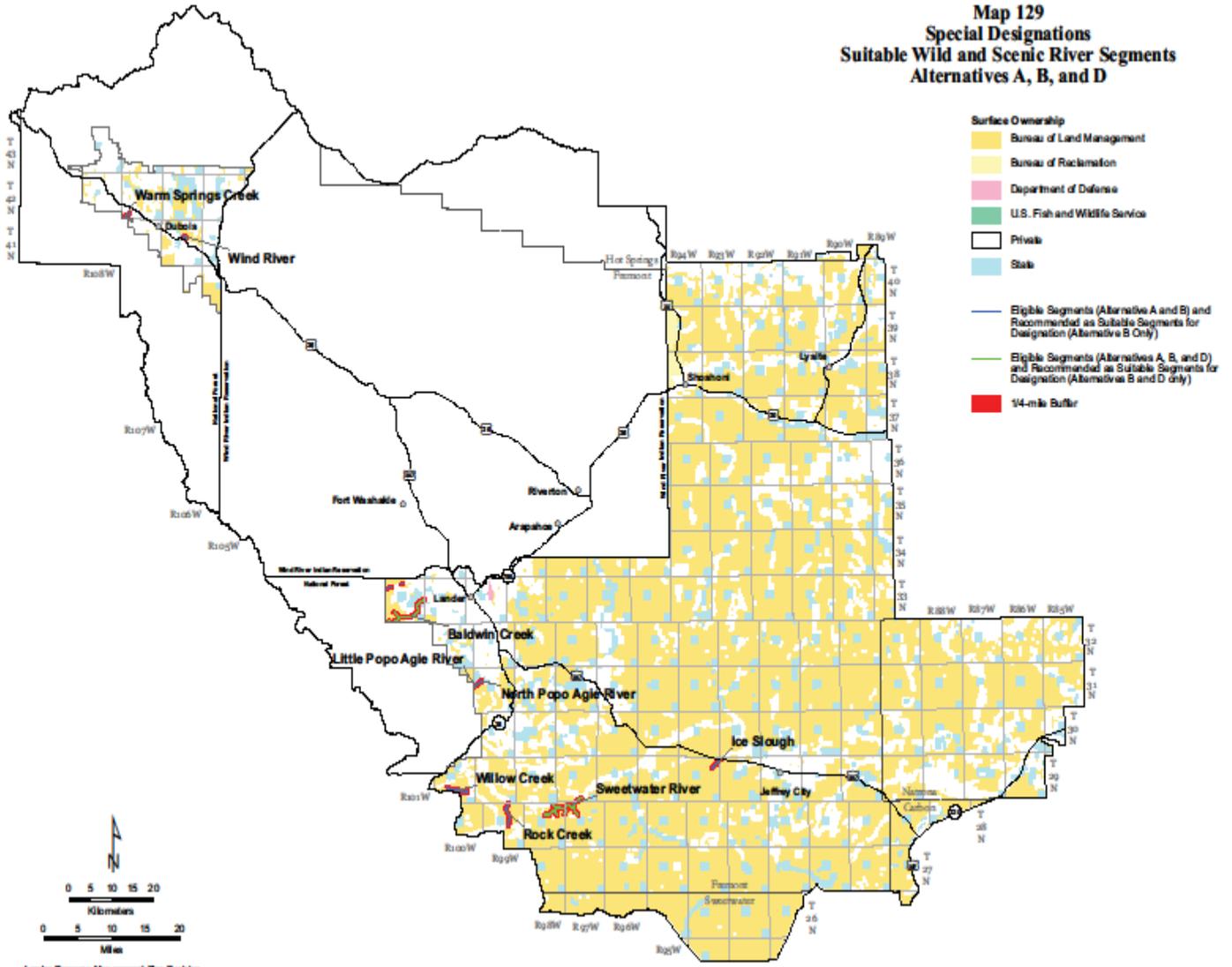
**Map 128
Special Designations
Wilderness Study Areas
All Alternatives**



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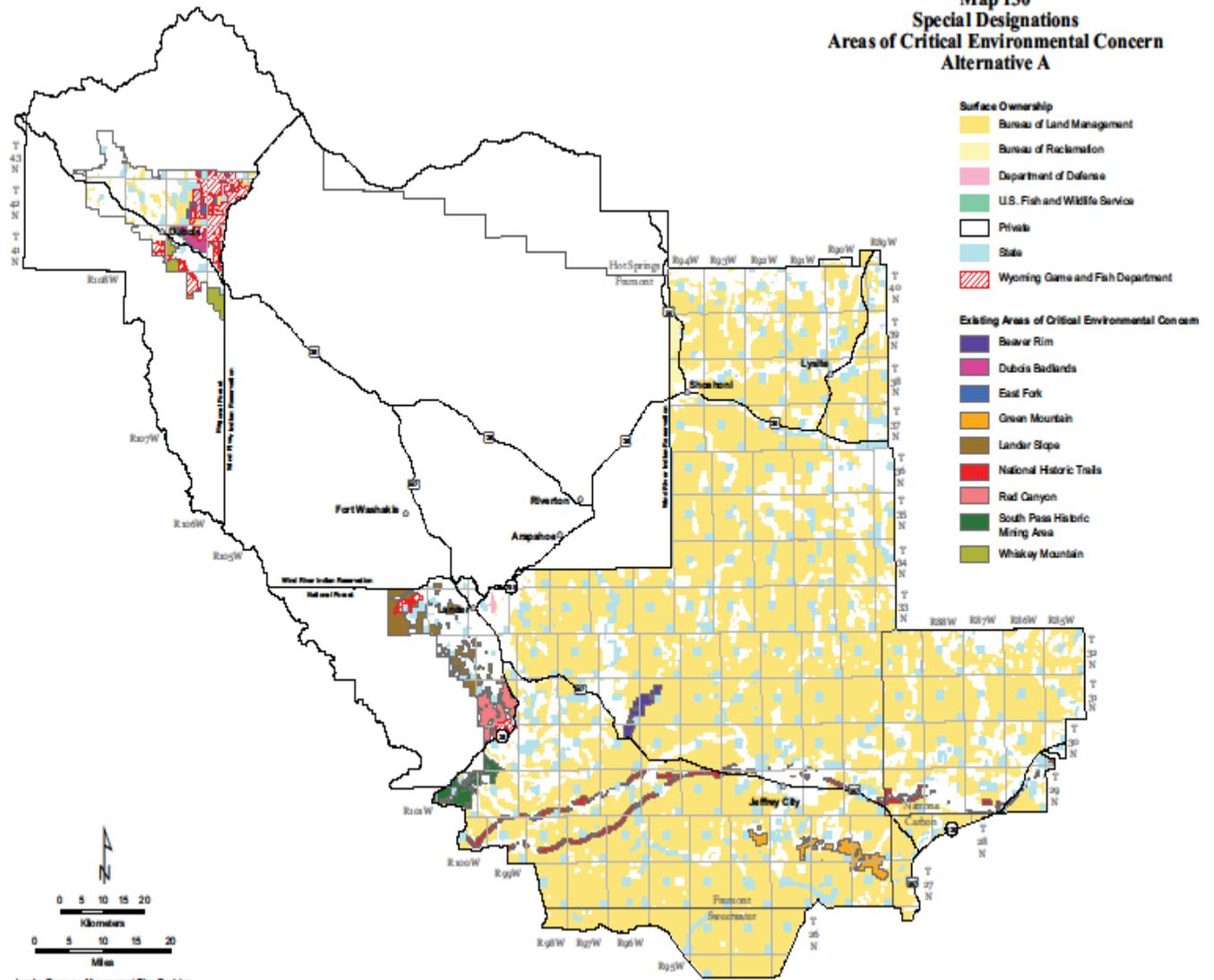
**Map 129
Special Designations
Suitable Wild and Scenic River Segments
Alternatives A, B, and D**



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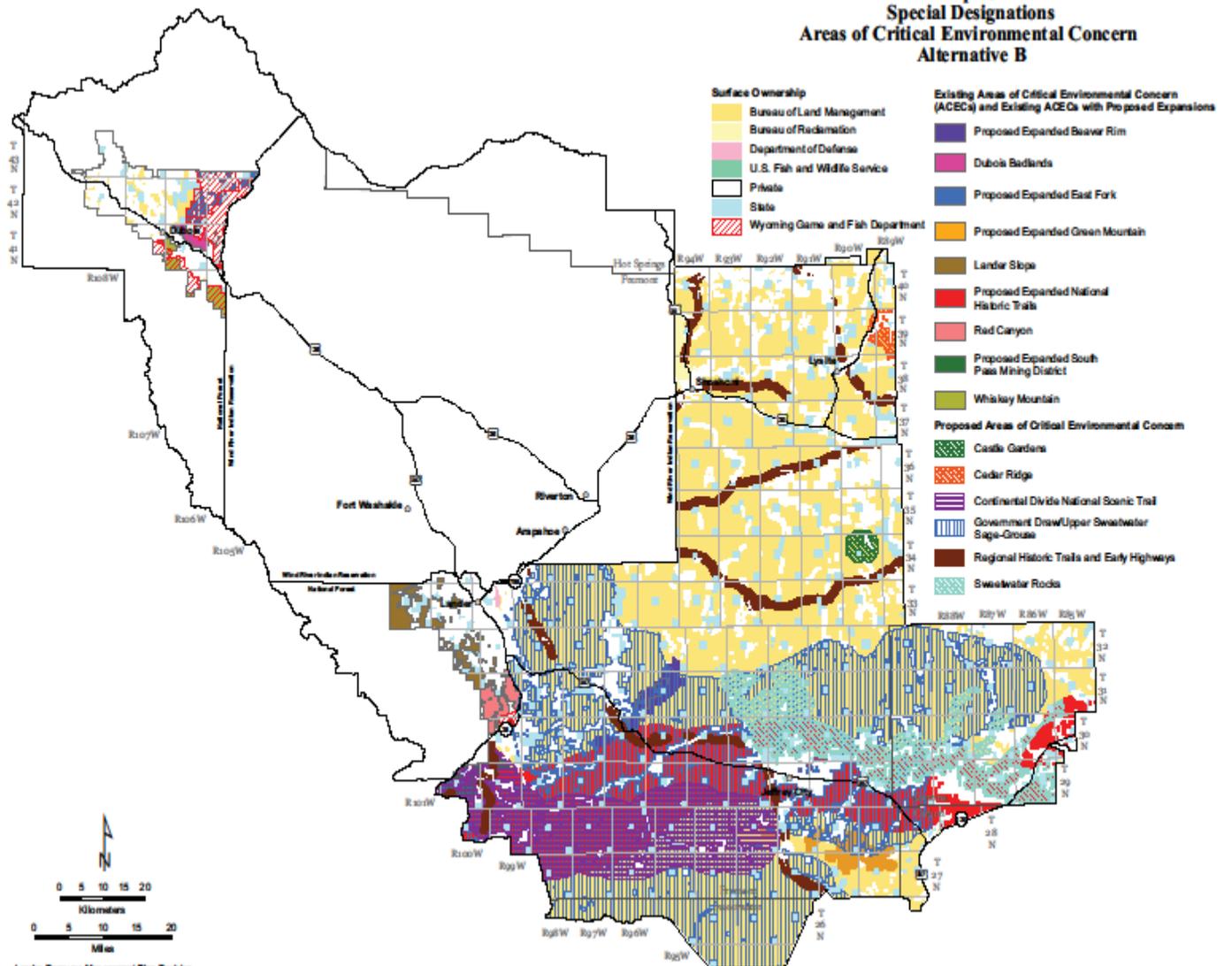
Map 130
Special Designations
Areas of Critical Environmental Concern
Alternative A



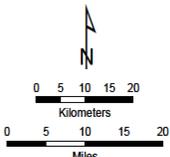
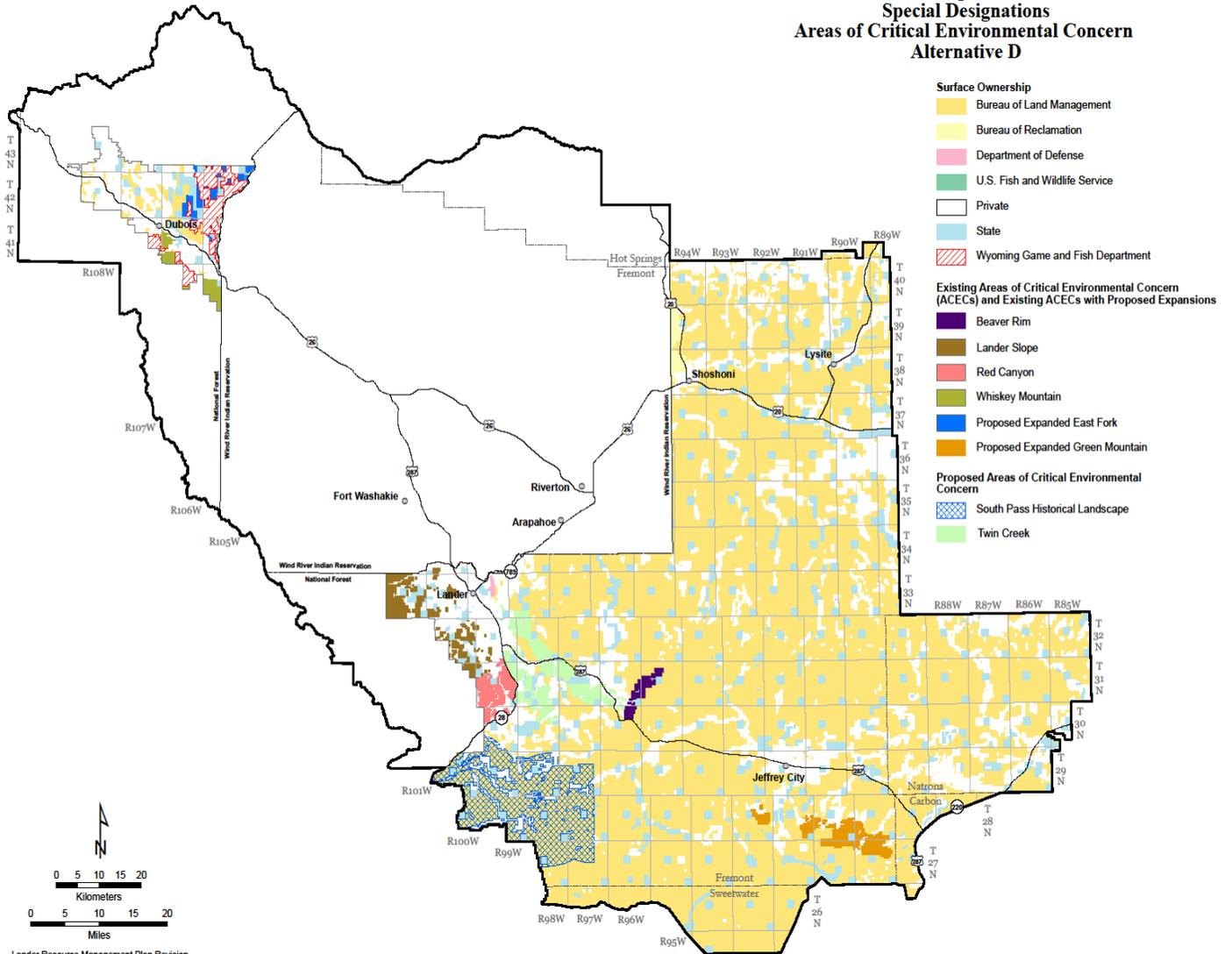
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Map 131 Special Designations Areas of Critical Environmental Concern Alternative B



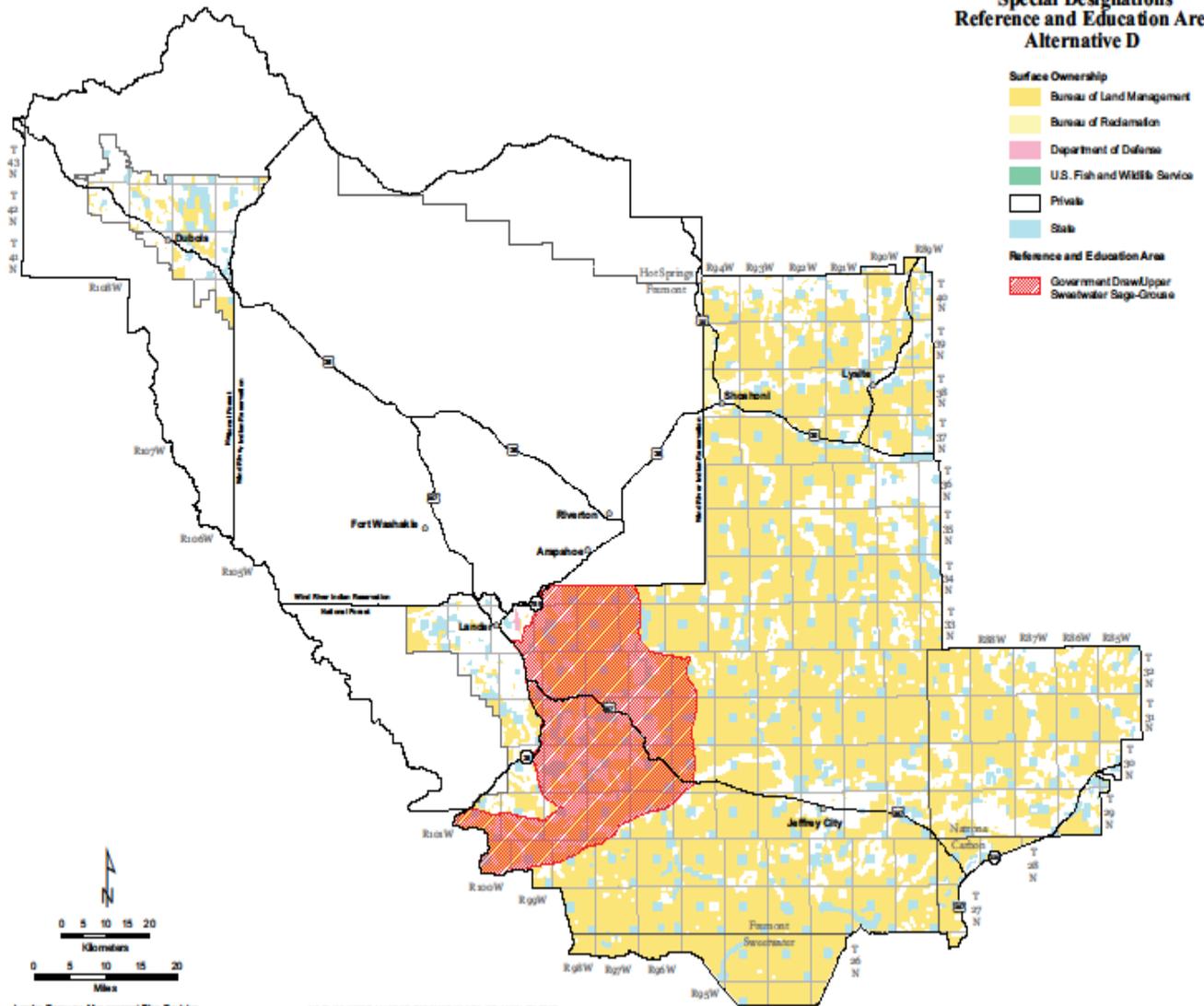
Map 132
Special Designations
Areas of Critical Environmental Concern
Alternative D



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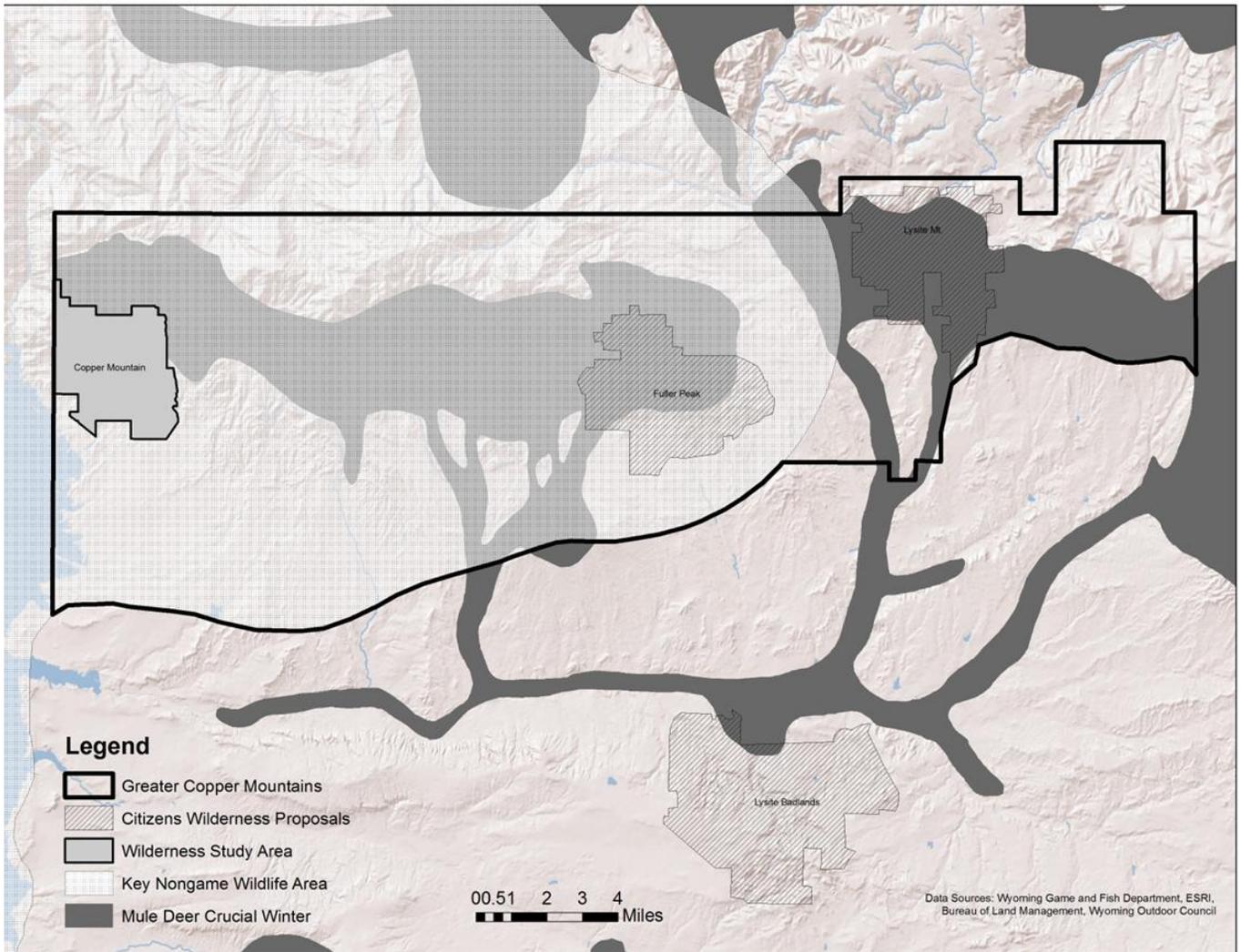
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**Map 135
Special Designations
Reference and Education Area
Alternative D**



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Copper Mountain Special Management Unit

Appendix II

Proposal to maintain the scenic, recreational, and ecological values of the greater Copper Mountain area.

Prepared and submitted by: The Wyoming Outdoor Council and the Wyoming Wilderness Association

With superb opportunities for recreation, a diverse assemblage of native plants and wildlife, and a strong likelihood that significant new oil and gas development will occur nearby, we believe that the greater Copper Mountain area (GCMA) deserves management that will maintain or minimize impacts to scenic, recreational, and ecological values of this area. We propose that this area's setting and the recreational opportunities it affords be maintained by crafting management that provides quiet recreational experiences and limits or prevents ground disturbing activities. Furthermore, because the proposed Moneta Divide Natural Gas Project will likely affect wildlife habitat outside of the GCMA, especially winter habitat use by the Southwest Bighorn mule deer herd, we suggest that BLM consider establishing an off-site mitigation fund for development-related activities of the proposed Moneta Divide project that will likely affect wildlife within the GCMA. Finally, we urge BLM to consider implementing changes to its management of livestock grazing for this area to restore degraded riparian areas and prevent further cheatgrass invasion. In the sections that follow, we provide recommendations, that we believe, will help maintain the superb scenic, recreational, and ecological resources of the GCMA.

The area encompassed within the GCMA boundary, as discussed herein, has been modified from the Wyoming Outdoor Council's earlier Bridger Mountains proposal. The southern boundary has been modified to be consistent with the southern boundary of the Wyoming Game and Fish Department's Wind River Canyon Key Nongame Wildlife area (KNWA). The northern, eastern, southeastern, and eastern boundary of the GCMA is consistent with that of the earlier Bridger Mountains proposal. The southern boundary of the KNWA is a logical one, based upon the expertise and on-the-ground experience of the WGFD's nongame biologists, that follows landscape features that separate the Copper Mountains and their foreground from the area to the south that will likely experience heavy development as part of the Moneta Divide project. Our on-the-ground observations confirm that this southern boundary of the KNWA is appropriate for the GCMA as it will maintain the setting and visual quality of the Copper Mountains and provide a buffer from the proposed development to the south. The GCMA boundary is depicted in CMSMU map.

As one of the few areas of the Lander planning area that provide opportunities for quiet recreational pursuits, we hope BLM will implement management for the GCMA that maintains this area's excellent opportunities for hunting, hiking, primitive camping, wildlife watching, and potentially, mountain biking. We propose that BLM implement "limited to designated routes only" management for motorized and mechanized travel throughout the GCMA. In addition, we feel that the Copper Mountain Wilderness Study Area (WSA) be closed to motorized and mechanized travel. Finally, because of the disruption that

motorized vehicles cause to hunter experiences as well as elk and mule deer behavior, we urge BLM to implement a seasonal road closure that coincides with big game hunting seasons within the Fuller Peak and Lysite Mountain Citizen's Proposed Wilderness (CWP) areas. We would be amenable to a strategy that would allow limited entry into these two CWPs, for the purpose of game retrieval only. We believe that this strategy is warranted because "[e]lk are generally known to avoid roads that are open to vehicles."¹ This strategy would also go far to provide and protect the primitive recreational experience for backcountry hunters, hunters who have few places where they can expect and find a primitive backcountry experience.

To maintain the integrity of the GCMA for recreational users and wildlife, we urge BLM to impose strong restrictions on development within the GCMA. We ask BLM to impose, at a minimum, category 5 restrictions across the GCMA as well as within mule deer crucial winter ranges to the south of the GCMA that are important to the Southwest Bighorn mule deer herd. In addition, we ask BLM to require that activities associated with existing oil and gas leases minimize their effects on wintering mule deer within those mapped mule deer crucial winter ranges. Without adequate protections for wintering mule deer from oil and gas development, BLM should expect to see declining use of winter ranges by mule deer and a concomitant decrease of the local mule deer population, much like the trends observed in relation to development of the Pinedale Anticline natural gas field. We believe that a VRM class II management and category 5 restrictions are warranted for this area because of the area's outstanding scenic, recreational, and ecological value. Especially relevant, is the importance of this area, demonstrated by its designation as a Key Nongame Wildlife Area by the WGFD, for roosting bats and foraging raptors, including the Townsend's big-eared bat, peregrine falcon, and golden eagle. Because of the presence of a high concentration of these species, all of which are susceptible to wind energy facility induced mortality, we do not feel that wind energy development is appropriate within the GCMA. We do feel that two exceptions the category 5 restrictions are acceptable, namely the designation of the Shoshoni/Badwater and Westwide 79-216 right-of-way corridors. We do not believe that electrical transmission within these corridors is compatible with the values of this area, but we would not be opposed to new pipelines within these corridors so long as surface disturbances are properly reclaimed to prevent the spread of cheatgrass and halogeton. Because of the ongoing threat to the integrity of this area from mining, we believe that it should be withdrawn from locatable mineral entry because the natural values of this area clearly outweigh any potential mineral development. Finally, we also believe that the natural values of this area far outweigh the limited economic opportunities associated with the marginal phosphate deposits, especially those found at Lysite Mountain.

The final issue of concern in the GCMA is the poor condition of certain upland and riparian areas as well as the presence of nonnative invasive plants, including cheatgrass, halogeton, russian olive, and tamarisk. We suggest that BLM implement management that will restore riparian areas and prevent the spread of invasive plants. Russian olive and tamarisk can be observed throughout the lower reaches of riparian areas within the GCMA. We urge BLM to analyze and incorporate vegetation treatments in the RMP to

¹ Sawyer, H., R. M. Neilson, F. G. Lindzey, L. Keith, J. H. Powell, and A. A. Abraham. 2007. Habitat selection of elk in a nonforested environment. *Journal of Wildlife Management* 71(3):868-874.

facilitate removal of these woody invasive species. Our groups would welcome the opportunity to assist any effort BLM may undertake to remove these woody invaders, including volunteer labor.

Recent research² has shown that cheatgrass invasion is facilitated primarily by stress. The author found that “[i]nherent differences in resilience driven by landscape orientation and soil properties create a mosaic of [plant] communities that differ substantially in the cattle grazing disturbance levels they can withstand before crossing a threshold to an alternative state.”³ He goes on to note that “[c]ommunities located on coarser-textured soils, flat terrain or south-facing slopes are the least resilient to disturbance because of their lower productivity.”⁴ The author recommended that cumulative stress be reduced because climate change is likely to increase heat and water stress.⁵ In addition, “[r]educing cumulative cattle grazing intensities by altering utilization rates and/or seasons of use and other management strategies may be the only effective means” to reduce stress.⁶ The current distribution of cheatgrass within the GCMA seems to confirm these findings, according to our anecdotal observations, because cheatgrass is found primarily in areas with south-facing aspects and coarse granitic soils. Because this already xeric area may experience warming and drying as a result of climate change, we support the author’s recommendation to alter utilization rates and seasons of use. In addition to cheatgrass invasion of upland plant communities, we also observed severe degradation of riparian areas within the GCMA. Figure 2, below, is an example of a small seep and associated mesic vegetation within the Fuller Peak CWP⁷ that exhibits hummocking and very high livestock utilization. To remedy the upland and riparian degradation within the GCMA, we ask BLM to consider implementing a grazing strategy that reduces utilization and changes the seasons of use to give native bunch grasses adequate growing season rest. We also suggest that BLM consider excluding cattle from springs and seeps, with wildlife friendly fencing, to protect these fragile but important landscape features.

² Reisner, M. D. 2010. Drivers of plant community dynamics in sagebrush steppe ecosystems: Cattle grazing, heat and water stress (Ph.D. Dissertation Abstract). Oregon State University, Corvallis, OR.

³ *Id.* at 223.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ The coordinates for this seep are: WGS 84 (NAD 83) UTM 13T 0272683, 4807103.

Appendix III

Annotated Bibliography:

Studies on the Economic Value of Public lands and Protected Public Lands that have Appeared in the Peer-Reviewed Academic Literature:

January 2012

Beyers, W. B. and D.P Lindahl. 1996. "Lone Eagles and High Fliers in Rural Producer Services." *Rural Development Perspectives*. 11(3): 2-10.

Surveyed rural owners of producer service firms (information technology, for example) and found that more than two-thirds of these export-oriented businesses cite quality of life factors as the most important reason for their business location. Forty-four percent of the locally focused business owners also cite quality of life as the main decision factor for not leaving. Almost none of the firms based their location decision on costs (low taxes, low labor costs and low cost of living).

Booth, D.E. 1999. "Spatial Patterns in the Economic Development of the Mountain West." *Growth and Change*. 30(3): 384-405

In a study of growth in the mountainous states of the rural West, Booth found that two forces are at work in determining growth: "On the one hand, the beauty of the landscape and other amenities are attracting population and income. On the other hand, access to regional metropolitan centers continues to be an important element in locational decisions. The net result is that counties outside the commuting range of these metropolitan centers, but with close access and good interstate connections have greater population densities and more growth in densities than less accessible counties." (page 400) In other words, access to larger cities and population center is also important (see Rasker et al, 2009)

Charnley, S., R. J. McLain, and E. M. Donoghue. 2008. "Forest Management Policy, Amenity Migration, and Community Well-Being in the American West: Reflections from the Northwest Forest Plan." *Human Ecology*. 36: 743-761.

The authors used the Northwest Forest Plan as a case study and found the shift from resource extraction to conservation did not in all cases lead to amenity migration and community development. The authors take issue with other studies that analyze the effects of conservation policies because most do not analyze the effects at the community scale. The authors based their findings on the perceptions of long-time residents, with information obtained via interviews. They did not interview recent "amenity migrants."

Cromartie, J.B. and J.M. Wardwell. 1999. "Migrants Settling Far and Wide in the Rural West." *Rural Development Perspectives*. 14(2): 2-8.

Between 1990 and 1997, the non-metropolitan (rural) West grew three times faster than the no-metro portions of the country, with two-thirds of the growth driven from in-migration stimulated in part by the presence of natural amenities.

Deller, S. C., T.-H. Tsai, et al. 2001. The Role of Amenities and Quality of Life in Rural Economic Growth. *American Journal of Agricultural Economics*. 83(2): 352-365.

Showed that Protected natural amenities—such as pristine scenery and wildlife—help sustain property values and attract new investment.

Duffy-Deno, K. 1998. The Effect of Federal Wilderness on County Growth in the Intermountain Western United States. *Journal of Regional Science*. 38(1): 109-136.

A study of 250 non-metro counties in the Rocky Mountains found no evidence that the presence of federal Wilderness in the intermountain states was either directly or indirectly associated with growth in population or employment. With the methods employed (a disequilibrium model of population and employment growth) he found that Wilderness was neither good nor bad for growth.

Migration, and Public Land Policy: Evidence from the Northwest Forest Plan.” *Journal of Agricultural and Resource Economics*. 35(2): 316-333.

The authors found that the Northwest Forest Plan, which reallocated 11 million acres of federal land from timber production to protecting old-growth forest species, led to reduced local employment growth and increased net migration. They found that “The total negative effect on employment was offset only slightly by positive migration-driven effects.”

Fuguitt, G.V. and C.L. Beale. 1996. “Recent Trends in Nonmetropolitan Migration: toward a New Turnaround?” *Growth and Change*. 27: 156-174.

The authors argue that telecommunications technology has allowed businesses to operate far from urban centers and that the fastest growth in the country is in non-metropolitan areas.

Gude, P.H., Hansen, A.J., Rasker, R., Maxwell, B. 2006. "Rates and Drivers of Rural Residential Development in the Greater Yellowstone." *Landscape and Urban Planning*. 77: 131-151.

Workers in occupations that are flexible in where they can live, in law, finance, insurance, real estate, business, health, and engineering, for example, are attracted to the West in large part because of its amenities. The downside of amenity-influenced migration is urban sprawl. For example, the authors found that from 1970 to 1999, the Greater Yellowstone area experienced a 58 percent increase in population and a 350 percent increase in the area of rural lands supporting exurban-housing densities.

Hansen, A.J, R. Rasker, B., Maxwell, J.L. Rotella, J.D. Johnson, A. Wright Parmenter, U. Langer, W. B. Cohen, R. L. Lawrence, and M. P.V. Kraska. 2002. “Ecological Causes and Consequences of Demographic Change in the New West.” *Bioscience*. 52(2): 151-162.

Amenities have driven much of the growth in the “New West,” but this has resulted in land use changes that threaten biodiversity.

Holmes, P. and W. Hecox. 2002. “Does Wilderness Impoverish Rural Areas?” *International Journal of Wilderness*. 10(3): 34-39.

The authors found a significant positive correlation between the percent of congressionally designated Wilderness land in a county and growth in population, income, and employment from 1970 to 2000. They discovered that: “Wilderness counties generate far more growth in lower paying industries like hotels and other lodging places and eating and drinking establishments, but they also have remarkable growth in higher paying professional services like legal services and investment offices relative to non- Wilderness counties in the rural West.” (page 5)

Johnson, J.D. and R. Rasker. 1995. “The Role of Economic and Quality of Life Values in Rural Business Location.” *Journal of Rural Studies*. 11(4): 405-416.

The authors investigated the relative importance of economic, social, cultural, and environmental factors in people's decision to locate or retain a business in the northern portion of the Greater Yellowstone area. The study revealed that the most important reasons for people's decision to locate or retain a business in the area had to do with the scenic amenities, the rural character of the town, the low crime rate, proximity to wildlife-based recreation, and other social, cultural, and environmental factors.

Knapp, T. A. and P. E. Graves. 1989. “On the Role of Amenities in Models of Migration and Regional Development.” *Journal of Regional Science*. 29(1): 71-87.

“Jobs may follow people, if household migration decisions are increasingly influenced by demands for location-specific amenities ...” (See article by Whitelaw on the theory that jobs follow people).

From a review of the literature, the authors find that: “First, employment growth appears to be caused largely by population growth rather than conversely. Second, certain demand-side variables (tax breaks and industrial development bonds) fail to significantly spur growth while supply variables such as education expenditures and climate variables are found to significantly influence county growth.” The authors conclude: “Thus, the research effort advocated in this paper focuses upon location-specific amenities as a critical factor in determining regional futures.”

Lewis, D. J., G. L. Hunt and A. J. Plantinga. 2002. “Public Land Conservation and Employment Growth in the Northern Forest Region.” *Land Economics*. 78(2): 245-259.

Discovered that public land conservation is associated with more robust population growth but not employment growth: “We find that net migration rates were higher in counties with more conservation lands, but the effects are relatively small. No significant effect on employment growth is detected.”

Lorah, P. and R. Southwick. 2003. “Environmental Protection, Population Change, and Economic Development in the Rural Western United States.” *Population and the Environment*. 24(3): 255-272.

The authors point out that opponents of roadless areas, National Monuments, National Parks, and Wilderness claim that preserving public lands is detrimental to the economy. The researchers tested whether this is true by analyzing the relationship between the presence of protected lands and the performance of the local counties’ economies. Their findings show that the population, employment, and income growth rates, from 1969 to 1999, were much higher for the non-metro counties with protected lands than those without protected lands. They also found that in the non-metropolitan portions of the West, the highest level of environmental protection on public lands is associated with the highest levels of growth.

Lewis, D.J., G.L. Hunt and A. J. Plantinga. 2003. “Does Public Lands Policy Affect Local Wage Growth?” *Growth and Change*. 34(1): 64-86.

The authors quantified the effects on wage growth of management practices applied on public lands in the Northern Forest region of the United States. “It was found that wage growth rates are not significantly affected by the shares of land under either management regime [“preservationist” versus “extractive”]. As well, recent declines in national forest timber sales are found to have no effect on wage growth.”

McGranahan, D.A. 1999. “Natural Amenities Drive Population Change.” *Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Report 781, 1-24.*

Conserving lands, while also creating a new visibility for them through protective designations, helps safeguard and highlight the amenities that attract people and business. When population growth rates of U.S. counties were compared, the highest growth occurred in counties with amenities, which included climate, topography, and water area.

Nelson, P.B. 1999. “Quality of Life, Nontraditional Income, and Economic Growth: New Development Opportunities for the Rural West.” *Rural Development Perspectives*. 14(2): 32-37.

Nelson argues that have shown that natural amenities, including those offered by public lands, are a key to attracting knowledge-based workers.

Power, T. M. 1991. “Ecosystem Preservation and the Economy of the Greater Yellowstone Area.” *Conservation Biology*. 5(3): 395-404.

Power argues that footloose entrepreneurs bring their businesses with them when they locate to scenic areas like Greater Yellowstone.

Rasker, R., P.H. Gude, J.A. Gude, J. van den Noort. 2009. “The Economic Importance of Air Travel in High-Amenity Rural Areas.” *Journal of Rural Studies*. 25: 343-353

The vast distances between towns and cities in the American West can be a detriment to business, yet they also serve to attract technology and knowledge-based workers seeking to live in a picturesque setting. Yet, in spite of the increasing importance of amenities to migration and business location, also needed is access to markets, particularly via commercial air service.

Rasker, R. 2006. “An Exploration Into the Economic Impact of Industrial Development Versus Conservation on Western Public Lands.” *Society and Natural Resources*. 19(3): 191-207.

Rasker has shown that protected public lands, set aside for conservation and recreation rather than commodity production, are significant drivers of economic growth.

Rasker, R. 2005. “Wilderness for Its Own Sake or as Economic Asset?” *J of Land, Resources, Environmental Law*. 25(1): 15-20.

“In a perfect world, Wilderness proposals would be supported simply for the goodness of the idea that in this highly industrialized world of ours, some places should be set aside and untrammled by human beings. But since rural poverty exists, and because people have immediate needs, Wilderness proposals in the future will stand a higher chance of success if they make economic sense. Mixing economic development and preservation is not where we Wilderness advocates thought we would find ourselves forty years ago. Passing Wilderness legislation these days is very hard work because it also needs to pass the test of being economically beneficial. This combination makes for a much more complicated intellectual challenge, but in the end it is a much more satisfying solution.”

Rasker R. and A. Hansen. 2000. "Natural Amenities and Population Growth in the Greater Yellowstone Region." *Human Ecology Review*. 7(2): 30-40.

"Much of the recent growth in population, jobs and income in the Greater Yellowstone Region, as well as other parts of the rural West, has been driven by ecological and social amenities, in contrast to the historical dependence on resource extractive industries and agriculture." The results of statistical analysis of county-level growth metrics indicate that ecological and amenity variables are necessary conditions for growth, but they are not sufficient. An educated workforce and access to larger markets via air travel are also important.

Rasker, R. and A. Hackman. 1996. "Economic Development and the Conservation of Large Carnivores." *Conservation Biology*. 10(4): 991-1002.

The conservation of carnivores such as grizzly bears requires the protection of large expanses of open space. Employment and income trends were analyzed in northwestern Montana comparing counties with a high degree of protected public lands versus those without: employment and income in Wilderness counties grew faster, and showed higher degrees of economic diversification and lower unemployment when compared to "resource extraction" dependent counties.

Rasker, R. 1994. "A New Look at Old Vistas: the Economic Role of Environmental Quality in Western Public Lands." *University of Colorado Law Review*. 65(2): 369-399.

5 In today's economy, the "multiple use" mandate of federal public lands has less relevance when the fastest growing regions of the West are closely tied to "no use" designation that favor the protection of wildland and wildlife habitat.

Rasker, R. and D. Glick. 1994. "Footloose Entrepreneurs: Pioneers of the New West?" *Illahae*. 10(1): 34-43.

Demonstrate that the protection of large portions of public lands in the Greater Yellowstone ecosystem have contributed to economic growth, and more so than areas that are highly dependent on resource extraction.

Rasker, R. 1993. "Rural Development, Conservation, and Public Policy in the Greater Yellowstone Ecosystem." *Society and Natural Resources*. 6:109-126.

"In the greater Yellowstone area, there is a perceived controversy between conservation efforts and economic well-being. This controversy is fueled by misconceptions about the economy and the role played by public lands in the region." In this article, three commonly held myths are addressed by describing changes that have taken place in the economy, and, in view of these, Rasker concludes that economic well-being can be compatible with ecological protection, particularly if an unspoiled natural landscape is the critical element stimulating economic activity.

Rudzitis, G. and H.E. Johansen. 1989. "Migration into Western Wilderness Counties: Causes and Consequences." *Western Wildlands*. Spring, Pages 19-23; Rudzitis, G. and H.E. Johansen.

1991. "How Important is Wilderness? Results from a United States Survey." *Environmental Management*. Vol. 15,: 227-233and; Rudzitis, G. 1993. "Nonmetropolitan Geography: Migration, Sense of Place, and the American West." *Urban Geography*. Vol. 14(6): 574-585.

In the three articles listed above, Rudzitis and Johanson demonstrated that Wilderness counties grew faster than non-Wilderness counties and Wilderness was an important motivator for local residents.

During the 1960s, counties containing federally designated Wilderness areas had population increases three times greater than other non-metropolitan counties. In the 1970s, they grew at a rate twice that of non-metropolitan areas, and in the 1980s, their population increased 24 percent – six times more than the national average of four percent for non-metropolitan areas and almost twice as much as counties in the rural West. To test the importance of amenities in people's decisions to migrate, the authors surveyed more than 11,000 randomly selected migrants and residents in 15 Wilderness counties in the West. Sixty percent said the presence of designated Wilderness was an important reason for why they moved, 45 percent said that Wilderness was why they stayed in the area, and 81 percent felt Wilderness areas were important to their counties. The most significant reasons for locating to a Wilderness county were the environmental and physical amenities, the scenery, outdoor recreation, and the pace of life. When asked about their attitudes toward development, 90 percent of recent migrants and 85 percent of established residents felt it was necessary to "keep the environment in its natural state."

Shumway J.M. and S.M. Otterstrom. 2001. "Spatial Patterns of Migration and Income Change in the Mountain West: The Dominance of Service-Based, Amenity-Rich Counties." *Professional Geographer*. 53(4): 492-502.

The authors found that the greatest number of new migrants to the West is in counties characterized by their recreational nature, scenic amenities, proximity to national parks or other federal lands, and preponderance of service-based economies. They conclude that in these so-called New West counties, the importance of mineral, cattle, and lumber production is dwarfed

by an economy that is now based on “a new paradigm of the amenity region, which creates increased demands for amenity space, residential and recreational property, second homes, and environmental protection.” (page 501).

Snepenger, D.J., J.D. Johnson and R. Rasker. 1995. Travel-stimulated entrepreneurial migration. *Journal of Travel Research*. 34(1): 40-44.

Find that quality of life factors (environmental, recreational and social amenities) are important in businesses owner’s decision to locate in the northern portion of the Greater Yellowstone region. Also, find that the majority of business owners came to the Greater Yellowstone area first as tourists.

Whitelaw, E. 1992. “Oregon's Real Economy.” *Old Oregon*. Winter: 31-33.

Whitelaw suggests that the theory of economic development has shifted, from “jobs first, then migration,” to “migration first, then jobs.” In other words, people initially decide where they want to live, and this decision is influenced by amenities, including those provided by public lands.

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Related Resources: A summary of regional reports, case studies, tools, a library of additional research, and related news articles on the value of western protected public lands is available here:

<http://headwaterseconomics.org/land/reports/protected-lands-value/>.