U.S. Department of the Interior
Bureau of Land Management

Environmental Assessment

August 2011 Lease Parcel Review

January 2011

PREPARING OFFICE

U.S. Department of the Interior
Bureau of Land Management
Wind River / Bighorn Basin District
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BLM

NATIONAL SYSTEM OF PUBLIC LANDS

Introduction

Identifying Information:

As required by 43 CFR 3120.1-2, the BLM Wyoming State Office conducts a quarterly competitive lease sale to sell available oil and gas lease parcels. A Notice of Competitive Lease Sale (NCLS), which lists lease parcels to be offered at the auction, is published and posted by the BLM State Office at least 45 days before the auction is held. Lease stipulations applicable to each parcel are specified in the Sale Notice. The decision as to which public lands and minerals are open for leasing and what leasing stipulations may be necessary, based on information available at the time, is made during the land use planning process. Surface management of non-BLM administered land overlaying federal minerals is determined by BLM in consultation with the appropriate surface management agency or the private surface owner.

In the process of preparing a lease sale the BLM State Office sends a draft parcel list to each field office where the parcels are located. Field Office staff then review the legal descriptions of the parcels to determine if they are in areas open to leasing; if appropriate stipulations have been included; if new information has become available which might change any analysis conducted during the planning process; if appropriate consultations have been conducted, and if there are special resource conditions of which potential bidders should be made aware.

On rare occasions, additional information obtained after the publication of the NCLS, may result in withdrawal of certain parcels prior to the day of the lease sale.

The following Environmental Assessment (EA) documents the review of the parcels that were nominated. All parcels addressed in this EA are under the administration of the Wind River / Bighorn Basin District (Cody Field Office, Worland Field Office, and Lander Field Office). It serves to verify conformance with the approved land use plans, addresses new information, and provides the rationale for recommending parcels to be sold during the aforementioned lease sale.

Title, EA number, and type of project:

August 2011 Lease Parcel Review, DOI-BLM-WY-R000-2011-0001-EA

Location of Proposed Action:

All parcels addressed in this EA are under the administration of the Wind River / Bighorn Basin District (Cody Field Office, Worland Field Office, and Lander Field Office).

Name and Location of Preparing Office:

Lead Office - Wind River - Bighorn Basin DO and number LLWYR00000

Identify the subject function code:

Subject Function Code – 1310 EI

Applicant Name:

Parcels were nominated through Expressions of Interest for the August 2011 Oil and Gas Competitive Lease Sale.

Purpose and Need for Action:

Public lands within the Wind River / Bighorn Basin District have been evaluated through the land use planning process, and in compliance with other laws, management actions were identified within these documents, which reflect the intent of the Federal Land Policy and Management Act of 1976 (FLPMA); stating, "goals and objectives be established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield unless otherwise specified by law."

The Wind River / Bighorn Basin District further acknowledges the intent of FLPMA in managing multiple use lands for protection of these resources; "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use". However the management of multiple use lands through FLPMA also states that "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970 (84 Stat. 1876, 30 U.S.C. 21a) as it pertains to the public lands."

It is the policy of the Bureau of Land Management (BLM) as derived from various laws, including the Mineral Leasing Act of 1920, as amended [30 U.S.C. 181 et seq.] and the Federal Land Policy and Management Act of 1976 (FLPMA), to make mineral resources available for disposal and to encourage development of mineral resources to meet national, regional, and local needs. The purpose of this document is to verify conformance with the Land Use Plans, address new information, and determine which stipulations are appropriate for the nominated parcels. This EA will analyze the impacts of recommending these lease parcels nominated for the August 2011 competitive oil and gas lease sale, to provide access to federally managed oil and gas resources to allow exploration for and development of oil and gas resources on lands with Federal Mineral Reserves while meeting the needs of other resource values.

The need is established by the Federal Oil & Gas Leasing Reform Act of 1987 to respond to Expressions of Interest, the Federal Land Policy Management Act, and Mineral Leasing Act of 1920, as amended. The sale and issuance of oil and gas leases is needed to meet the growing energy needs of the United States public. Wyoming is a major source of oil and natural gas for heating and electrical energy production in the lower 48 states, especially for markets in the Eastern United States. Continued sale and issuance of lease parcels is necessary to maintain options for production as oil and gas companies seek new areas for production or attempt to develop previously inaccessible or uneconomical reserves.

Decision to be Made

The BLM will decide if, or under what conditions to offer for sale the nominated parcels.

Scoping, Public Involvement and Issues:

An interdisciplinary team comprised of Worland, Cody, and Lander Field Office resource specialists has reviewed the proposed action and identified impacts and analyzed those impacts in this EA. Consultation with the private land owners, Bureau of Reclamation, and Wyoming Game and Fish was also conducted; comments received have been incorporated into the analysis and mitigation.

Proposed Action and Alternatives

Description of the Proposed Action:

A total of 38 parcels were nominated for the August 2011 sale. This section describes the alternatives considered for analysis.

Standard terms and conditions as well as special stipulations would apply. Lease stipulations (as required by Title 43 Code of Federal Registration 3131.3) were added to each parcel as identified by the Field Offices to address site specific concerns.

Description of Alternatives Analyzed in Detail:

Alternative 1 – Full lease sale with standard stipulations. Under Alternative 1, all nominated parcels would be offered for sale and subsequent oil and gas leasing with the stipulations recommended at the time of nomination, approximately 60,439.07 acres, as detailed in Appendix A.

Alternative 2 – This Alternative analyzes the offer and issuance of the nominated parcels with stipulations recommended at the time of nomination as well as additional stipulations identified through analysis. Lease stipulations (as required by Title 43 Code of Federal Registration 3131.3) were added to each parcel as identified by the Wind River / Bighorn Basin District to address site specific concerns. This alternative also analyzes the recommendation by the Wind River / Bighorn Basin District to defer nine parcels and five partial parcels (23,276.33 acres) due to resource conflicts or protection measure not addressed in the land use plans. All parcels for Alternative 2, as modified, are listed in Appendix B with the parcel number, acreage, lease number, location, and stipulations.

Alternative 3 – This alternative analyzes the effect of not offering lease parcels as nominated. Under the No Action alternative, the BLM would not offer any of the leases that have been nominated. Surface management would remain the same and ongoing oil and gas development could continue on surrounding federal, private, and state leases.

The BLM NEPA Handbook (H-1790-1) states that for Environmental Assessments (EAs) on externally initiated proposed actions, the No Action Alternative generally means that the proposed action would not take place. In the case of a lease sale, this would mean that an expression of interest to lease (parcel nomination) would be denied or rejected, and a lease would not be offered for that parcel.

It is not expected that demand for energy oil and gas will go down, and a decision to not offer these leases would not prevent future leasing in these areas consistent with land use planning decisions, and subject to appropriate stipulations, identified in the Resource Management Plan. Therefore, it is anticipated that these parcels may be renominated and offered at a future date. While future leases may contain more restrictive lease terms, it is reasonable to consider that a substantial portion of the development possible under current planning decisions will be possible under future leases. It is likely that not offering or leasing these parcels would not affect regional or national demand for fossil fuels, and alternate sources would likely be developed to meet the demand. It is not possible to predict the impacts that would arise from development of alternate sources; these impacts may be greater than, less than, or equal to development of the nominated parcels for oil and gas.

Alternatives considered but eliminated from further analysis

Master Leasing Plans are needed where there is a need to reconsider RMP decisions prior to lease issuance. Alternative 2 within this EA does not offer for sale parcels not adequately covered by the RMP EIS's. The proposed leases are not within areas being evaluate by BLM for future MLP analysis based upon the criteria in IM 2010–117. Each parcel was reviewed using the criteria to be followed for the preparation of an MLP. None of the parcels or surrounding areas were determined to meet the MLP criteria.

Conformance

Pursuant to 40 Code of Federal Regulations (CFR) 1508.28 and 1502.21, this environmental assessment (EA) tiers to and incorporates by reference the information and analysis contained in the Grass Creek RMP 1998; Washakie RMP 1988; Cody RMP 1990; Lander RMP 1986 and Final Environmental Impact Statement and Record of Decision for each RMP. The parcels nominated for the August 2011 lease sale have been identified as available for leasing.

Affected Environment

This section describes the environment that could be affected by implementation of the alternatives described in Section 2. Aspects of the affected environment described in this section focus on relevant major resources and issues. Certain critical environmental components require analysis under BLM policy. Only those aspects of the affected environment that are potentially impacted are described in detail.

Land Use

There were approximately 60,439.07 acres nominated for the August 2011 lease sale. Parcels 059 ,061, 064, 076, 077, 089, 090, 091 and 092 contain private lands with Federal Minerals. The land owners were notified that these parcels were nominated for the August 2011 lease sale. Parcels 081, 090, 091, 092 and 093 contain lands administered by the Bureau of Reclamation (BOR). Parcel 076 contains lands administered by the State of Wyoming with oil & gas mineral rights retained by the Federal Government. All lands nominated on federally administered lands are open to leasing with resource restrictions, as analyzed in Chapter 4.

Geology and Paleontological Resources

Eleven surface formations are present within the lease parcels in the Worland FO. The formations have a PFYC (Potential Fossil Yield Classification) rating ranging from 2 or low to 5 or very high, meaning the formations have a low to very high sensitivity for paleontological resources. Significant fossil localities for plants, invertebrates, and vertebrates are known within many of these formations.

Geologically, the three parcels located in the Cody Field Office (parcel 091, 092 and 093), lie primarily on terrace deposits of Quaternary age, associated with the main drainages in the area, as well as on bedrock outcrops of the Paleocene Fort Union Formation. Each parcel includes within their boundaries, areas where the Fort Union Formation crops out on the surface. The Quaternary terrace deposits have a Potential Fossil Yield Classification of 2 (PFYC = 2) meaning a low potential for vertebrate or scientifically significant paleontological resources. However, the Fort Union Formation has a Potential Fossil Yield Classification of 3 (PFYC = 3), meaning a moderate potential for the occurrence of vertebrate or scientifically significant paleontological resources. Potential leasing areas rated with a PFYC= 3 or higher are typically stipulated to protect these types of paleontological resources as a part of the leasing process. Therefore, each of the three parcels located in the Cody Field Office will be so stipulated to mitigate the effects of leasing on such resources.

The Wind River formation is the only geologic formation present within the lease parcel in the Lander FO (parcel 081). This formation has a PFYC rating of 5, meaning it has a very high potential for containing vertebrate fossils and/or scientifically significant nonvertebrate fossils. Although no fossil localities are currently known within parcel 081, significant fossil localities are known to occur in this formation.

Hydrology/Water Quality (surface and ground)

Surface Water Resources

The lease parcels within the Worland Field Office Boundary lie within the watersheds listed in the table below.

HUC_10	HU_10_Name	Lease Parcel Acres	Acres
1008000708	Nowater Creek	32444	170962
1008000705	Kirby Creek	12506	128529
1008000704	Bighorn River-Coal Draw	11158	194763
1008000802	Buffalo Creek	2364	111765
1008001403	Shoshone River-Coon Creek	1034	201782
1008000709	East Fork Nowater Creek	256	98790
1008001402	Shoshone River-Bitter Creek	244	174973
1008000801	Nowood River-Deep Creek	136	228956
1008000706	Cottonwood Creek	131	267990
1008000703	Owl Creek	93	135116
	Total Acres	60365	1713625

These watersheds are located at varying elevations throughout the Bighorn Basin. They are all located in the Upper Bighorn Basin United States Geological Survey (USGS) level #5 hydrologic unit. The lower elevation watersheds are typically losing stream watersheds and the higher elevation watersheds are generally surface and groundwater recharge areas. The majority of the watersheds, Nowater, Kirby Creek and the Bighorn Coal Draw watersheds have headwaters that are located at elevations less than 6000 feet and contain intermittent or ephemeral flow regimes.

The three of the available Oil and Gas Lease Parcels (091–093) located in the Cody Field Office and are situated within two watersheds and four sub-watersheds as depicted the following table.

Lease Par-cel	Watershed	Sub-Watershed (HUC_12)	Sub-Watershed	Sub-Wa-tershed Acres	Acres
091	Shoshone River-Coon Creek	100800140305	Lower Coon Creek	23,985.6	158.5
091	Shoshone River-Coon Creek	100800140303	Lower Whistle Creek	27,203.8	634.1
Sub-Total					793
092	Shoshone River-Coon Creek	100800140303	Lower Whistle Creek	27,203.8	90.6
Sub-Total					91
093	Shoshone River-Coon Creek	100800140303	Lower Whistle Creek	27,203.8	151.2
093	Shoshone River-Bitter Creek	100800140203	Peerless Coulee	35,497.6	32.7
093	Shoshone River-Bitter Creek	100800140205	Roan Wash	13,866.2	211.7
Sub-Total					396
Total					1,280

The following table is a list of potentially impacted riparian segments that have the hydrologic, soil, and vegetative characteristics that have developed from natural flow patterns or as produced water that is made available as a by-product from oil and gas well discharges.

Seg Code	Riparian area	USGS Quadrangle	miles	Hydro code	Primary tributary	Secondary trib	Tertiary trib
E0413X	NOWATER CK	HENRY DRAW	8.01	10080007	BIGHORN R	NOWATER CK	
I0372X	SCORPION DRAW	BADER DRAW	0.42	10080007	BIGHORN R	NOWATER CK	SCORPION DRAW
P0519X	KIRBY CK	RED HOLE	0.2	10080007	BIGHORN R	KIRBY CK	
T0004X	SAND DRAW (nr Kirby) TR	GLOIN RESERVOIR	0.78	10080007	BIGHORN R	SAND DRAW (nr Kirby)	SAND DRAW (nr Kirby) TR
I0394X	ALKALI CK	COYOTE HILL	0.66	10080008	NOWOOD R		
I0378X	ZIMMERMAN DRAW TR	ZIMMERMAN BUTTES	0.2	10080007	BIGHORN R	NOWATER CK	ZIMMERMAN DRAW

According to the BLM Worland Field Office Washakie Resource Management plan, the Nowater and Kirby Creek watersheds are listed as sensitive watersheds that have had experienced various levels of disturbance from various resource historic uses that have impacted the hydrologic regimes.

The Cody Field Office lease parcels do not contain nor do they drain into any Bureau of Land Management Administered riparian, wetland, or aquatic resources. Parcels 091 and 092 both contain significant amounts of riparian, wetland, and aquatic habitat, some of which is found on Bureau of Reclamation Administered lands. All three parcels drain into surface water resources that support flora and fauna that is associated with riparian, wetland, and/or aquatic habitat. Eventually these waters enter Whistle Creek, Roan Wash, Peerless Coulee, and Coon Creek all of which are tributaries to the Shoshone and Bighorn Rivers, both of which support important recreational fisheries.

Coon Creek has an ephemeral-intermittent flow regime at the point where runoff from Parcel 091 enters it. The other three streams Whistle Creek, Roan Wash, and Peerless Coulee all have irrigation water augmented perennial flow regimes at the point where runoff/shallow ground water from the parcels enter them. All four sub-watersheds have ephemeral-intermittent flow regimes upstream of the point where irrigation begins to exert a hydrologic influence. A check of the Wyoming State Engineers Water Rights database indicates that there are hundreds of existing surface water rights within 2–3 miles of these lease parcels. Most of these water rights were issued for irrigation/agriculture, stock water, and/or miscellaneous purposes.

Cody Field Office Parcel 091 is situated on surface that is partly privately owned and partly administered by the Bureau of Reclamation. The parcel contains several hundred feet of Whistle Creek and associated riparian-wetland habitat, flood-irrigated agricultural lands, several acres of riparian-wetland habitat associated with drainage ditches and/or excess or subbing irrigation water, and several hundred acres of that support upland vegetation. The Elk Lovell Irrigation Canal also runs south to north through the parcel. Most of the parcel is within the Whistle Creek watershed, but about 20 percent is within the Coon Creek watershed. Natural runoff and excess surface and sub-surface irrigation water west of the Elk Lovell Irrigation Canal drains into Whistle Creek, which lies about one half mile to the west. Runoff generated by precipitation that falls east of the canal within the Whistle Creek watershed is intercepted by the canal and runoff resulting from precipitation that falls within the Coon Creek watershed flows east towards Coon Creek.

Cody Field Office Parcel 092 is situated on fairly flat private surface that also contains a high percentage of flood-irrigated land. A drainage that supports riparian-wetland vegetation runs more or less east to west through the center of the parcel and the Elk Lovell irrigation canal passes through the northeast part of the parcel. Natural runoff and excess surface and sub-surface irrigation water west of the Elk Lovell Irrigation Canal drains into Whistle Creek, which lies about one half mile to the west. Water runoff that occurs east of the canal is intercepted by the canal.

Cody Field Office Parcel 093 is situated entirely on surface that is administered by the Bureau of Reclamation. A sugar beet weighing and storage pad is situated in the northeast part of the parcel and a power line runs north and south through the parcel. Vegetation in the parcel is dominated by Gardner's saltbush, big sagebrush, and several species of native perennial grasses and forbs. The parcel straddles three sub-watersheds, draining into Peerless Coulee, Roan Wash, and Whistle Creek. An irrigation canal passes near the southeast corner of the parcel and irrigated agricultural land, irrigation/drainage ditches, a small reservoir, and several acres of riparian-wetland habitat is present less than one half mile to the west.

Ground Water Resources

Ground-water resources within two miles of each of the three Cody FO lease parcels support numerous Ground Water Rights for domestic, stock, and miscellaneous purposes. Most these water rights are associated with wells that tap fairly shallow ground water that is likely supported by the irrigation of agricultural land in the area. The Wyoming State Engineers Water Right Database indicates that all the associated wells are less than 200 feet deep and that the majority are less than one hundred feet deep. Most of the static water levels of these wells range from zero to thirty feet deep, but a few of these wells have deeper static water levels, the deepest of which being about 100 feet. Deeper aquifers may also be present under the parcels that could be affected by oil and/or gas development/production.

Parcel 081 is located within proximity to the Town of Shoshoni's municipal water supply.

Air Quality & Climate Change

Air Quality

The Clean Air Act Amendment of 1970 established National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. The environmental protection agency (EPA) continues to define and set NAAQS. Ambient air is that which is accessible to the public. National air quality health standards have been set for pollutants called "criteria pollutants." These include ozone, particulates, sulfur dioxide, nitrogen dioxide, carbon monoxide and lead. The Wyoming Department of Environmental Quality has set standards for these criteria pollutants also, called Wyoming Ambient Air Quality Standards (WAQQS). The State of Wyoming has determined through available monitoring that the area is in compliance with WAAQs and NAAQs

The counties that lie within the jurisdictional boundaries of the Wind River / Bighorn Basin District are classified as in attainment of all state and national ambient air quality standards as defined in the Clean Air Act of 1977, as amended. Modeling conducted to date by the WYDEQ does not indicate that air quality is likely to exceed any limits specified by the Clean Air Act in the near future.

Various state and federal agencies monitor air pollutant concentrations, visibility, and atmospheric deposition throughout Wyoming, and there are four monitors in the Lander planning area (Lander, South Pass, South Pass City, and Sinks Canyon). The Wyoming Department of Environmental Quality (DEQ) operates a PM2.5 monitor as part of the State and Local Monitoring Site (SLAMS) network in Lander. The SLAMS monitor at South Pass measures ozone, nitrous oxides, PM10, and SO2. A new air quality monitoring station is being established in the Frenchie Creek area. The USFS operates an IMPROVE monitor in the North Absaroka Wilderness Area in Park County (in the Bighorn Basin Planning Area) and another IMPROVE monitor is operated at Pinedale in neighboring Sublette County. The Sinks Canyon and South Pass City monitors, which the BLM operate as part of the National Acid Deposition Program (NADP), measure atmospheric deposition (wet) of NH4+, sulfate (SO4), and various metals.

With a limited number of air quality monitors in the Lander planning area, it is difficult to accurately assess existing air quality conditions throughout the area. As previously noted, a new monitoring station is being established in the Frenchie Creek 1 area. However, air quality, visibility, and atmospheric deposition are monitored throughout Wyoming, including adjacent planning areas. Therefore, the assessment of recent air quality conditions in the Lander planning area has been conducted by examining data collected at the monitors within the area supplemented by various monitors in neighboring planning areas. The examination of these data indicates that

the current air quality for criteria pollutants in the planning area is considered good overall. Based on measurements within the area, visibility in the planning area is considered excellent.

The Wyoming Department of Environmental Quality (DEQ) operates a PM10 monitor as part of the State and Local Monitoring Site (SLAMS) network in Cody, Wyoming (Park County). Additional SLAMS and Special Purpose Monitoring (SPM) sites operate in nearby counties. Nearby monitoring sites include several IMPROVE monitors and BLM administered sites that are part of the Wyoming Air Resource Monitoring System (WARMS). Atmospheric deposition (wet) measurements of ammonium, sulfate, and various metals are taken at the Sinks Canyon, South Pass and Yellowstone Park sites, which the BLM operates as part of the National Acid Deposition Program (NADP).

With only two air quality monitors in the Bighorn Basin (Cody/PM10 and North Absaroka/IMPROVE), it is difficult to accurately assess existing air quality conditions throughout the area. However, air quality, visibility, and atmospheric deposition are monitored throughout Wyoming, including adjacent planning areas. Therefore, examining data collected at the two monitors in the area, supplemented by various monitors in neighboring planning areas, the analysis of the data indicates that the current air quality for criteria pollutants in the resource area is considered good overall. Based on measurements in the area, visibility in the resource area is considered excellent.

Climate and Climate Change

The climate in the Wind River / Bighorn Basin District is designated as a combination of Intermountain Semi-desert and Southern Rocky Mountain Steppe. With the exception of the mountain areas, the local climate of this area can be described as a semiarid, continental cold desert climate. The mountains have a sub humid continental climate. Temperatures can range from winter lows of almost -50 degrees Fahrenheit to summertime highs of in excess of 100 degrees. Annual air temperatures on the sagebrush-covered rangelands average 33 to 45 degrees Fahrenheit, and, on forested mountain areas, 33 to 38 degrees. The Bighorn Basin is bounded on the northeast by the Pryor Mountains, on the east by the Big Horn Mountains, on the south by Owl Creek and Bridger and Washakie Ranges, on the west by the Absaroka Mountains, and open to the north into Montana. Summers are generally hot and short, and winters long and cold. Precipitation is generally low, though greater at higher elevations, and is generally evenly distributed across the year, with the exception of the drier summer months. Wind speeds are variable and generally strong. The counties that lie within the jurisdictional boundaries of the Lander Field Office are classified as in attainment of all state and national ambient air quality standards as defined in the Clean Air Act of 1977, as amended. Modeling conducted to date by the WYDEQ does not indicate that air quality is likely to exceed any limits specified by the Clean Air Act in the near future.

Climate change refers to any significant change in measures of climate (e.g., temperature or precipitation) lasting for an extended period of time (decades or longer). Climate change may result from natural processes, such as changes in the sun's intensity; natural processes within the climate system (such as changes in ocean circulation); human activities that change the atmosphere's composition (such as burning fossil fuels) and the land surface (such as urbanization) (IPCC 2007).

Greenhouse gases that are included in the US Greenhouse Gas Inventory are: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). CO2 and methane (CH4) are typically emitted from combustion activities or are directly emitted into the atmosphere. On-going scientific research has

identified the potential impacts of greenhouse gas emissions (including CO2; CH4; nitrous oxide (N2O), water vapor; and several trace gasses) on global climate. Through complex interactions at regional and global scales, these greenhouse gas emissions cause a net warming effect of the atmosphere (which making makes surface temperatures suitable for life on Earth), primarily by decreasing the amount of heat energy radiated by the Earth back into space. Although greenhouse gas levels have varied for millennia (along with corresponding variations in climatic conditions), recent industrialization and burning of fossil carbon sources have caused CO2 concentrations to increase dramatically, and are likely to contribute to overall climatic changes, typically referred to as global warming. Increasing CO2 concentrations also lead to preferential fertilization and growth of specific plant species.

Global mean surface temperatures have increased nearly 1.0°C (1.8°F) from 1890 to 2006 (Goddard Institute for Space Studies, 2007). However, observations and predictive models indicate that average temperature changes are likely to be greater in the Northern Hemisphere. Data indicates that northern latitudes (above 24° N) have exhibited temperature increases of nearly 1.2°C (2.1°F) since 1900, with nearly a 1.0°C (1.8°F) increase since 1970 alone. It also shows temperature and precipitation trends for the conterminous United States. For both parameters we see varying rates of change, but overall increases in both temperature and precipitation. Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of greenhouse gases are likely to accelerate the rate of climate change.

In 2001, the Intergovernmental Panel on Climate Change indicated that by the year 2100, global average surface temperatures would increase 1.4 to 5.8°C (2.5 to 10.4°F) above 1990 levels. The National Academy of Sciences (2006) has confirmed these findings, but also indicated that there are uncertainties regarding how climate change may affect different regions. Computer model predictions forecasts indicate that increases in temperature will not be evenly or equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures.

Currently, the WDEQ-AQD does not have regulations regarding greenhouse gas emissions, although these emissions are regulated indirectly by various other regulations.

Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The primary greenhouse gases that enter the atmosphere as a result of anthropogenic activities include carbon dioxide (CO2), methane (CH4), nitrous oxide (N20), and flourinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. These synthetic gases are powerful GHGs that are emitted from a variety of industrial processes.

Ongoing scientific research has identified the potential impacts of anthropogenic greenhouse gas (GHG) emissions and changes in biological sequestration due to land management activities on global climate. Through complex interactions on a regional and global scale, these GHG emissions and net losses of biological carbon sinks cause a net warming effect of the atmosphere, primarily by decreasing the amount of heat energy radiated by the earth back into space. Although GHG levels have varied for millennia, recent industrialization and burning of fossil carbon sources have caused CO2 concentrations to increase dramatically, and are likely to contribute to overall global climatic changes. The Intergovernmental Panel on Climate Change (IPCC) recently

concluded that “warming of the climate system is unequivocal” and “most of the observed increase in globally average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.”

Several activities contribute to the phenomena of climate change, including emissions of GHGs (especially carbon dioxide and methane) from fossil fuel development, large wildfires and activities using combustion engines; changes to the natural carbon cycle; and changes to radiative forces and reflectivity (albedo). It is important to note that GHGs will have a sustained climatic impact over different temporal scales. For example, recent emissions of carbon dioxide can influence climate for 100 years. In contrast, black carbon is a relatively short-lived pollutant, as it remains in the atmosphere for only about a week. It is estimated that black carbon is the second greatest contributor to global warming behind CO2 (Ramanathan and Carmichael, 2008).

The lack of scientific tools designed to predict climate change at regional or local scales limits the ability to quantify potential future impacts. However, potential impacts to air quality due to climate change are likely to be varied. Several activities occur within the planning area that may generate greenhouse gas emissions: oil, gas, and coal development, large fires, livestock grazing, and recreation using combustion engines which can potentially generate CO2 and methane.

Some activities within the Wind River / Bighorn Basin District generate greenhouse gas (GHG) emissions. Oil and gas development activities can generate carbon dioxide (CO2) and methane (CH4). CO2 emissions result from the use of combustion engines, while methane can be released during processing. Wildland fires also are a source of other GHG emissions, while livestock grazing is a source of methane. Other activities in the Resource Area with the potential to contribute to climate change include soil erosion from disturbed areas and fugitive dust from roads, which have the potential to darken snow-covered surfaces and cause faster snow melt. A description of the potential greenhouse gas emissions associated with the proposed leasing activities is included in Section 4.

There are several National Parks, National Forests, recreation areas, and wilderness areas in or adjacent to the Big Horn Basin. National Parks, Monuments and some state designated Wilderness Areas are designated as Class I. The Clean Air Act “declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas . . . from man made air pollution.” 42 U.S.C. § 7491(a)(1).25. Under the BLM Manual Section 8560.36, BLM lands, including wilderness areas not designated as Class I, are managed as Class II, which provides that moderate deterioration of air quality associated with industrial and population growth may occur.

Soils

The soils on the proposed lease parcels are varied and complex, reflecting changes in geology, landscape, elevation and aspect. The table that follows briefly summarizes the soil properties, restrictive features and limitations by soil map unit. The restrictive features and limitations reflect the dominant components (soil series) for a given soil map unit, as such, often do not extend across the entirety of the map unit.

The proposed lease parcels in Bighorn and Park Counties are on private lands for which little soil survey data is available. Based on aerial photograph and topographic map interpretation, the soils in these parcels appear to be deep and moderately well to well drained with slopes less than 4 percent. An exception is for the eastern portion of the parcels in Bighorn County where the slopes approach 15 percent. Restrictive features found on these parcels include moderately steep slopes

on the eastern parcels, fine textures, and moderately well drained soils are common on all parcels. Limitations included runoff and erosion hazards, mud hazards and seasonal wetness.

Table 1. Soils Properties and Ecological Sites with Restrictive Features and Limitations

Soil Map Unit (County)	*Soil Depth (Inches)*	*Ecological Sites*	*Slope Range (percent)*	*Restrictive Feature*	*Limitations*
102 Rock Outcrop (HS)	N/A	None	0–100	shallow soils, steep slopes	reclamation potential, runoff and erosion
109 Epsie-Rock Outcrop Complex (HS)	0–20	Saline Upland 10–14" pz.	3–60	shallow soils, erosivity, steep slopes, fine textures	reclamation potential, runoff and erosion
111 Rock Outcrop-Shingle-Tassle Complex (HS)	0–20	Shallow Loamy 10–14" pz.	3–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
112 Oceanet-Persayo-Rock Outcrop Complex (HS)	0–20	Shallow Loamy 10–14" pz. Saline Upland 10–14" pz. Shallow Clays 10–14" pz.	3–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
190 Epsie-Shingle Complex (HS)	10–20	Saline Upland 10–14' pz.	6–45	shallow soils, steep slopes, fine textures	reclamation potential, runoff and erosion, mud hazard
243 Kim Alkali— Kim Loams (HS)	40–60	Saline Lowland 10–14" pz. Loamy 10–14" pz. Clayey 10–14" pz.	0–6	none	few
247 Torriorthents, Severely Eroded	20–40	none assigned	all	thin top soil	reclamation potential
345 Vona-Otero Sandy Loams (HS)	20–60	Sandy 10–14" pz.	3–15	none	few
346 Nelson-Terry-Otero Complex (HS)	20–40	Sandy 10–14" pz.	3–20	none	few
360 Stoneham-Kim Association (HS)	40–60	Loamy 10–14" pz. Clayey 10–14" pz.	0–6	none	few
372 Tassel-Nelson Sandy Loams (HS)	20–40	Shallow Sandy 10–14" pz. Sandy 10–14" pz.	3–45	shallow soils, steep slopes	reclamation potential, runoff and erosion

382 Rock Outcrop-Tassel Complex (HS)	20–40	Shallow Sandy 10–14” pz.	3–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
389 Spearfish- Neville Association (HS)	10–60	Shallow Sandy 10–14” pz. Sandy 10–14” pz.	0–6	shallow soils, sandy textures	reclamation potential, blowing hazard
398 Tassel-Bowbac-Terry Complex (HS)	10–40	Shallow Sandy 10–14” pz. Sandy 10–14” pz.	3–30	shallow soils, moderately steep slopes	reclamation potential, runoff and erosion
445 Rekop-Gystrum Loams (HS)	10–40	Shallow Loamy 10–14” pz. Loamy 10–14” pz.	3–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
446 Rock Outcrop-Travessilla-Spearfish Complex (HS)	0–20	Shallow Loamy 10–14” pz.	3–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
448 Torrifluvents, Saline (HS)	40–60	none assigned	0–6	depth to water, salinity	seasonal wetness, reclamation potential
46 Petrie-Kim Alklali (HS)	40–60	Saline Upland 10–14” pz. Saline Lowland 10–14” pz.	3–15	none	few
490 Shingle-Thedalund Loams (HS)	10–40	Shallow Loamy 10–14” pz. Loamy 10–14” pz.	3–45	shallow soils, steep slopes	reclamation potential, runoff and erosion
572 Worland-Oceanet Sandy Loams (HS)	10–40	Shallow Sandy 5–9” pz. Sandy 10–14” pz.	3–15	shallow soils	reclamation potential
60 Cadoma-Kim Complex (HS) (HS)	20–60	Saline Upland 10–14” pz. Loamy 10–14” pz. Clayey 10–14” pz.	1–10	salinity, fine textures	reclamation potential, mud hazard
606 Hoot-Rock Outcrop Complex (HS)	0–20	Shallow Loamy 10–14” pz.	6–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
671 Rock Outcrop-Persayo Complex (HS)	0–20	Shale 5–9” pz.	3–60	shallow soils, steep slopes	reclamation potential, runoff and erosion
68 Cadoma-Epsie Complex (HS)	20–40	Saline Upland 10–14” pz.	3–45	steep slopes, fine textures	runoff and erosion, mud hazard
69 Kim Loam (HS)	40–60	Loamy 10–14” pz. Clayey 10–14” pz.	0–10	none	few

70 Cadoma Silty Clay Loam (HS)	20–40	Saline Upland 10–14" pz.	1–15	salinity, fine textures	reclamation potential, mud hazard
701 Fort Collins-Kim Loams (HS)	40–60	Loamy 10–14" pz. Clayey 10–14" pz.	3–15	none	few
703 Fort Collins-Cushman Loams (HS)	20–40	Loamy 10–14" pz. Clayey 10–14" pz.	3–15	none	few
705 Kim-Thedalund Loams (HS)	40–60	Loamy 10–14" pz. Clayey 10–14" pz.	3–15	none	few
75 Arvada-Kim Alkali (HS)	40–60	Saline Upland 10–14" pz Saline Lowland 10–14" pz.	0–10	none	few
752 Epsie Silty Clay Loam (HS)	10–20	Saline Upland 10–14" pz	3–15	shallow soils, fine textures	reclamation potential, mud hazard
90 Persayo-Bributte-Chipeta Complex (HS)	10–20	Saline Upland 5–9" pz	0–10	shallow soils, fine textures	reclamation potential, mud hazard
902 Samsil-Shingle-Rock Outcrop Complex (HS)	0–20	Shallow Clayey 10–14" pz. Shallow Loamy 10–14" pz.	3–45	shallow soils, steep slopes, fine textures	reclamation potential, runoff and erosion, mud hazard
910 Cadoma-Thedalund-Epsie Complex (HS)	20–40	Saline Upland 10–14" pz Loamy 10–14" pz.	3–45	steep slopes, fine textures	runoff and erosion, mud hazard
1 Absted-Forkwood-Shingle Association (Washakie)	40–60	Loamy 10–14" pz. Shallow Clayey 10–14" pz.	1–25	moderate steep slopes, sandy textures	runoff and erosion, blowing hazard
21 Forkwood-Haverdad-Arvada Association (Washakie)	40–60	Loamy 10–14" pz. Saline Lowland 10–14" pz. Saline Upland 10–14" pz.	1–10	sandy textures	blowing hazard
22 Forkwood-Kishona-Haverdad Association	40–60	Loamy 10–14" pz. Lowland 10–14" pz.	1–10	sandy textures	blowing hazard
23 Fruita-Neiber-Muff Association (Washakie)	20–60	Loamy 5–9" pz. Saline Upland 5–9" pz	1–30	moderately steep slopes	runoff and erosion
33 Hoot-Rock Outcrop-Persayo Complex (Washakie)	0–20	Shallow Sandy 5–9" pz. Saline Upland 5–9" pz.	3–45	shallow soils, steep slopes	reclamation potential, runoff and erosion

34 Kishone-Shingle-Rock Outcrop Association (Washakie)	10–60	Loamy 10–14” pz. Shallow Clayey 10–14” pz.	3–40	shallow soils, steep slopes	reclamation potential, runoff and erosion
35 Kishone-Shingle Association (Washakie)	10–60	Saline Upland 10–14” pz Shallow Clayey 10–14” pz.	6–30	shallow soils, steep slopes	reclamation potential, runoff and erosion
46 Muff-Neiber Fine Sandy Loams (Washakie)	20–40	Saline Upland 5–9” pz. Sandy 5–9” pz.	3–30	steep slopes	runoff and erosion
57 Persayo-Rock Outcrop Association (Washakie)	0–20	Shale 5–9” pz.	15–40	shallow soils, steep slopes, fine textures	reclamation potential, runoff and erosion, mud hazard
61 Rock Outcrop-Persayo (Washakie)	0–20	Shale 5–9” pz.	15–70	shallow soils, steep slopes, fine textures	reclamation potential, runoff and erosion, mud hazard
84 Youngston-Uffens-Lostwells Complex (Washakie)	40–60	Saline Upland 5–9” pz. Loamy 5–9” pz.	1–10	salinity, fine textures	reclamation potential, mud hazard
BCS Birdsley-Pavillion Association, sloping (Fremont)	10–40	Saline Ipland 5–9” pz. Loamy 5–9” pz.	5–16	shallow soils, steep slopes, fine textures, sodic	reclamation potential, runoff and erosion, mud hazard
CRF Clifterson-Rock land association, steep (Fremont)	>60	Gravelly 5–9” pz.	20–60+	shallow soils, steep slopes, fine textures, alkalinity	reclamation potential, runoff and erosion
Cw (Fremont) loam, nearly level (Fremont)	>60	Saline Subirrigatied 5–9” pz.	0–3	high water table, sodic	reclamation potential. wettness
TUB Trook-Apron association, gently sloping (Fremont)	>60	Sandy 5–9” pz.	1–8	low water holding capacity	reclamation potential, runoff and erosion
WSC Worland-Oceanet complex (Fremont)	10–40	Sandy 5–9” pz Shallow Sandy 5–9” pz	0–40	low water holding capacity	reclamation potential

Grazing

The proposed action occurs in 40 allotments in the Worland Field Office Area. These allotments are permitted for various grazing seasons and types of livestock. There are no grazing allotments affected in the parcels nominated in the Cody Field Office area since they are located on BOR and private lands. The portion of the parcel in Lander Field Office area (081) located on BLM administered lands is not permitted for grazing.

Allotment Name	Allotment Number
Neiber	00048
Antelope Draw	00074
West Cottonwood	00535
East Cottonwood	00534
Nelson	00665
Nowater	00105
Little Sand Draw	00590
Lower Nowater	00015
Pistol Draw	00603
Big Trails Group	00012
Lower Walker	00076
Upper Nowater	00018
East Waugh Dome	00538
Hamilton Dome	00504
Sand Draw	00656
Zimmerman Springs	00591
Waugh Dome	00554
Coal Draw	00574
Little Mud Creek	00193
Zimmerman Buttes	00571
South Lucerne Group	00502
North Murphy Dome	00080
King Dome	00638
Scorpion	00118
Gardner Badlands	00562
Kirby Creek	00589
Red Springs Draw	00570
Blue Springs	00501
South Coal Draw	00645
Middle Walker	00077
Rock Springs Draw	00602
Meeteetse Draw	00566
Lower Black Mountain Draw	00191
Freudenthal Draw	00561
Seaman	00158
Lower Arnold	00081
Upper Black Mountain Draw	00192
Farley	00051
Upper Arnold	00082
Major Basin	02546

Vegetation

Native Vegetation and Invasive Species

Worland Field Office Parcels—The primary native vegetation communities in the project area are mapped as Wyoming Big Sagebrush, Juniper Woodland, Annual Brome/Exotic Brome, Saltbush Fans and Flats, and Desert Shrub. Vegetation associated with these communities were identified during site visits to the parcels. This vegetation includes: Western wheatgrass, Bluebunch wheatgrass, Sandberg bluegrass, Green needlegrass, Indian ricegrass, needleandthread, Phlox, Woody aster, Wyoming big sagebrush, Rubber rabbitbrush, saltbush, Greasewood and Juniper. Blue gramma and Prickly pear cactus was also documented. Downy brome was documented on the majority of the sites at various levels of dominance.

Multiple populations of several noxious weed species are documented in the project area. The Worland BLM Weed Database shows the following species: Canada thistle, common burdock, field bindweed, hoary cress (whitetop), houndstongue, musk thistle, perennial pepperweed, Russian knapweed, Russian olive, downy brome and tamarisk (saltcedar).

Cody Field Office Parcel 091- is situated on surface that is partly privately owned and partly administered by the Bureau of Reclamation. The parcel contains several hundred feet of Whistle Creek and associated riparian-wetland habitat, flood-irrigated agricultural lands, several acres of riparian-wetland habitat associated with drainage ditches and/or excess or subbing irrigation water, and several hundred acres of that support upland vegetation.

Cody Field Office Parcel 092 – is situated on fairly flat private surface that also contains a high percentage of flood-irrigated land. A drainage that supports riparian-wetland vegetation runs more or less east to west through the center of the parcel and the Elk Lovell irrigation canal passes through the northeast part of the parcel.

Cody Field Office Parcel 093- is situated entirely on surface that is administered by the Bureau of Reclamation. A sugar beet weighing and storage pad is situated in the northeast part of the parcel and a power line runs north and south through the parcel. Vegetation in the parcel is dominated by Gardner's saltbush, big sagebrush, and several species of native perennial grasses and forbs.

Lander Field Office Parcel 081 –The vegetation in this parcel is best described as weedy and poor. Halogeton is the most common species found. It covers the wide floodplain of Poison Creek and the expanse of uplands from Water Tank Hill to the edge of the Poison Creek drainage. A buffer of sorts exists on this edge and is comprised of low chalky hills which are topped by sandstone rock outcrops and flanked by sandier upland sites. This buffer grows plants common to saline or poor range sites including greasewood, rubber rabbit brush, saltbush, three-awn and alkali sacaton. In the sandier areas the vegetation is comprised of Wyoming big sage, blue gramma (the most common grass in the area), and occasionally, an Indian rice grass or needle and thread grass plant. Down in the flood plain, the halogeton gives way first to Russian knapweed, then to a dense tamarisk thicket. Other weeds, such as white-top can also be found here. Annual weeds such as Russian thistle and various mustards are distributed throughout.

Threatened, Endangered, BLM Sensitive Species – Plants

There were no threatened, or endangered plant species identified on any of the nominated parcels. There is potential, on parcel 081, for three (3) BLM sensitive species ; Artemisia porteri (Porter's sagebrush); Cryptantha subcapitata (Owl creek miner's candle); Rorippa calycina (Persistent sepal yellowcress), but these species are not known to occur at present.

Wildlife—including Threatened, Endangered, BLM Sensitive Species

Worland Field Office (Grass Creek Resource Area) The proposed lease parcels are all located in the southwestern portion of the Bighorn basin, and occupy saline upland, Wyoming sagebrush, and juniper and limber pine habitats. Topography ranges from gentle to rolling saline upland sites to the broken ridges and rim rock along the juniper/limber pine areas. All the proposed parcels, except one, involve some portion of big game winter range. Parcels 084, 085, 086, 087, 088, and 090 are all within, or contain some portion of crucial mule deer winter range, and parcels 086, 089 and 090 are within, or contain some portion of crucial antelope winter range as well. Both mule deer and antelope could be expected at any time of the year, with larger concentrations during harsh winter weather conditions. These parcels or portion thereof also provide habitat for chukar, Hungarian partridge, and a variety of non-game birds, small mammals, predators, and reptiles.

There are no known threatened or endangered species that occur within these proposed parcels, but there are several on the Wyoming BLM's Sensitive Species list. Portions of parcels 089 and 090 provide habitat for a rather large white-tailed prairie dog colony as well as nesting and/or foraging habitat for the Mountain plover, burrowing owl, and Ferruginous hawk. A golden eagle nest is located within parcel 089. Even though none of the Wyoming sagebrush habitats within these proposed parcels provides habitat for the sage-grouse, they likely do provide some nesting and foraging habitat for some other sagebrush obligate sensitive species like the sage thrasher, sage sparrow, and Brewer's sparrow.

Worland Field Office (Washakie Resource Area) The proposed parcels in the southeastern portion of the Bighorn Basin generally occupy saline upland sites and are characterized by a Wyoming sagebrush dominated vegetative community with additional perennial grasses, cheat grass, prickly pear cactus, and various forbs. The topography varies from gently sloping to rolling landscape with shallow surface drainages flowing into various smaller tributaries of Nowood Creek or the Bighorn River. There is considerable surface disturbance associated with past and present oil and gas production in some parts of the area.

Wildlife habitat exists in the area that supports numerous species such as pronghorn antelope, mule deer, numerous small mammals and predators, sage grouse, passerines, raptors, as well as chukar and gray partridge. Parcels 056 through 066, 069 through 075, 078, 079, and 082 are completely or partially within a sage grouse core area. Parcels 067, 068, 076, 077, 080, and 083 are outside sage grouse core areas. Most of the area described is designated as crucial big game winter habitat for mule deer and is utilized on a year-long basis by pronghorn antelope.

There are no known threatened or endangered species that occur within these proposed parcels, but there is one species on Wyoming BLM's Sensitive Species list, the white-tailed prairie dog that known to exist in the area. Suitable habitat also exists for Mountain plover, burrowing owl, and Ferruginous hawk.

Cody Field Office – Parcels 091, 092, and 093 are within white-tailed prairie dog towns and within 3/4 miles of raptor nests. They are within winter range of deer and pronghorn. There are no known threatened or endangered species that occur within these proposed parcels. Black-footed ferrets would be the only listed species possibly present, although the prairie dog towns here are smaller than 200 acres and would not be a likely area for ferrets to occur. There have been no reports of black-footed ferrets since their removal from the Meeteetse area in the Bighorn Basin. These parcels do contain mountain plover nesting and foraging habitat. There is also riparian habitat within these parcels, which drain or contain northern leopard frog and Yellowstone cutthroat trout (BLM Sensitive Species).

Lander Field Office - Parcel 081 is within pronghorn crucial winter range. Both mule deer and pronghorn antelope could be expected at any time of year on this parcel with concentrations of pronghorn during winter. The Wyoming sagebrush habitat within this parcel likely provides habitat for a variety of other sagebrush obligate sensitive species such as sage sparrow, and Brewers sparrow. However, the majority of the plants in this parcel are those that grow in saline or poor range sites.

There are no known threatened or endangered species that occur within the proposed parcel. There is potential habitat for two (2) BLM sensitive species; the site-tailed prairie dog and mountian plover, but these species are not known to occur at present.

Recreation and Visual Resources

Recreation

The lease parcels located within BLM-administered public lands are managed as an extensive recreation management area (ERMA), where recreation use is custodial and addresses resource protection, use and user conflicts, and public health and safety. The recreation settings character range from middle country to rural. Abundant recreational opportunities exist within and surrounding the area, which mostly consists of hunting, fishing, 4-wheel and ATV use, driving for pleasure, hiking, rock hounding, sightseeing, wildlife viewing, and general dispersed recreation. Most of the lease parcels are located within BLM-administered public lands limiting motorized use to existing roads and trails. Two lease parcels (056, 084) fall within BLM-administered public lands managed as motorize use limited to designated roads and trails.

Visual Resource Management

The project area is located in an area managed under Visual Resource Management (VRM) Class II, III, and IV objectives. Approximately 590 acres of the lease parcels (083) are located in Class II, and the rest is located in III and IV, with the majority in VRM Class IV. The scenic quality rating units contain different landscapes exhibiting high and low degrees of natural elements of form, line, color, and texture; all of the rating units are inventoried as front country, and rated as low to high sensitivity levels. All rating units contain landscape modifications that impair the natural scenic quality. Such modifications include power lines, roads, and structures. The Class II area is located directly west of Cedar Mountain WSA and along portions of the Bighorn River, and Class III along the major transportation corridors and west of U.S. Highway 20. VRM Class IV encompasses the remainder of the lease parcels.

Cultural and Historical Resources

The lease parcels within the Wind River / Bighorn Basin District contain sixty-four known cultural sites. Thirty-one of the sites are eligible or unevaluated for the National Register of Historic Places. These historic properties include historic trails, prehistoric rock art sites, prehistoric open camps, and historic mines. In addition, the historic Lander to Thermopolis Road is located less than half a mile from parcel 081. Cultural resource studies indicate that the general area has been occupied for at least 12,000 years and additional cultural resource sites should be anticipated within the parcels. In accordance with the Wyoming State Protocol Appendix B.2, issuance of leases is exempt from class III inventory. Prior to conducting surface disturbance on these parcels a Class III cultural resource inventory would be completed.

Wind River / Bighorn Basin District archaeologists gathered and evaluated existing cultural and historic resource data and determined there were no cultural features identified that would

require Native American consultation as directed in BLM Handbook H-8120 for Native American Consultation.

Socioeconomics

Local communities depend heavily upon oil, gas, and mining activities. Agriculture and tourism also support local economies. The State of Wyoming receives a percentage of the lease sales receipts as well as a portion of the royalties should a lease begin production. Furthermore, the county where the lease is located receives monies from the State of Wyoming's allocation.

Special Management Areas (WSA, ACEC, Multiple Use Lands with Wilderness Characteristics)

Wilderness Characteristics

Wilderness characteristics are resource values that include naturalness, outstanding opportunities for solitude, and outstanding opportunities for primitive and unconfined recreation. Areas evaluated for wilderness characteristics generally occur in undeveloped locations 5,000 contiguous acres and greater, or of sufficient size to be practical to manage for these characteristics. The BLM Land Use Planning Handbook (H.1601-1) states that the BLM must consider the management of lands with wilderness characteristics during the land use planning process. The criteria used to identify these lands are essentially the same criteria used for determining wilderness characteristics for wilderness study areas (WSA). However, the authority set forth in Section 603(a) of FLPMA to complete the three part wilderness review process (inventory, study, and report to Congress) expired on October 21, 1993; therefore, FLPMA does not apply to new WSA proposals and consideration of new WSA proposals on BLM-administered public lands is no longer valid. As mandated by FLPMA, Section 202, the BLM is still required to maintain an inventory of BLM-administered public lands to determine whether they possess wilderness characteristics. There are three areas inventoried as containing multiple use lands with wilderness characteristics that intersect parcels 060, 079, 086. Refer to Appendix C for a complete inventory list of parcels and wilderness characteristics.

Cedar Mountain WSA is located within proximity to parcels 082 and 083.

Areas of Critical Environmental Concern

There are no Areas of Critical Environmental Concern (ACEC) found within the lease parcels.

Wastes, Hazardous Or Solid

There are no identified hazardous or solid waste sites on the parcels addressed in this EA.

Environmental Justice

Executive Order 12898 requires Federal agencies to assess projects to ensure there is no disproportionately high or adverse environmental, health, or safety impacts on minority and low income populations. A review of the parcels offered for lease indicates there are no impacts on minority or low-income populations.

Public Health and Safety

Oil and gas development, as well as other industrial use such as mining has been occurring in the Wind River / Bighorn Basin District for many decades. Due to the industrial safety programs, standards, and state and federal regulations, offering these parcels is not expected to materially

increase health or safety risks to humans, wildlife, or livestock. Leasing of the parcels analyzed in this EA would present no new or unusual health or safety issues not covered by existing state and federal laws and regulation.

Environmental Effects

Land Use

Alternative 1

Leasing would not have a direct impact to land use as proposed. Public lands are currently managed with multiple-use objectives. There are approximately 5,913.84 acres on split estate lands. Should the leases be issued and developed, those parcels containing private lands and split estate minerals would be subject to surface agreements and/or additional bonding requirements to compensate the private land owners for use of their property.

There are approximately 1069.4 acres on Bureau of Reclamation Lands and 120 acres on Sate of Wyoming lands.

Alternative 2

All other land uses would continue under current management goals and objectives.

Alternative 3

Under the No Action Alternative, the proposed Action would not occur. No resulting effects would be expected to occur beyond the current situation.

Geology and Paleontological Resources

Alternative 1

The surface formations within the lease parcels in the Wind River / Bighorn Basin District have produced paleontological localities. Sale of the leases will have no effect on paleontological resources. Development of the leases without additional mitigation could have an effect on these resources.

Alternative 2

Surface formations within the lease parcels in the Wind River / Bighorn Basin District have produced paleontological localities. Sale of the lease will have no effect on paleontological resources. However, construction as a result of the lease sale could damage or destroy surface and buried paleontological resources. As all parcels include surface outcrops of a minimum of a PFYC 3 rating, stipulations to mitigate the effects of such leasing would be added to each lease parcel that is recommended to the State Director for sale. Mitigation measures would be developed at the site specific APD application stage. Although the amount and location of direct and indirect effects cannot be predicted until the site-specific APD stage of development, an inventory or monitoring may be necessary prior to surface disturbing activities.

Alternative 3

Under the No Action Alternative, the Proposed Action would not occur. No resulting effects on paleontological localities would be expected to occur beyond the current situation.

Hydrology/Water Quality (surface and ground)

Alternative 1

Hydrology

While the act of leasing a parcel would produce no impacts, subsequent development of the lease would result in long term and short term changes to the hydrologic regime. Because of reduced water infiltration rates on well pads and roads, surface flows would move more quickly to stream channels, causing peak flow to occur earlier and to be higher than normal. Such an increase in runoff volumes and magnitude of the peak flow has the potential cause bank erosion, channel widening, downward incision, and disconnection from the floodplain. These potential effects would be dependent on the density of pad and road development within a watershed. Low density development may only affect the smaller tributary streams but not the larger ones, whereas more concentrated development within a watershed or catchment would tend to create potential effects further downstream to larger channels. Increased runoff volumes of water to streams and washes may actually increase groundwater recharge volumes. Long-term direct and indirect impacts to the watershed and hydrology would continue for the life of wells and would decrease once all well pads and road surfacing material has been removed and reclamation of well pads, access roads, pipelines, and power lines has taken place. Short-term direct and indirect impacts to the watershed and hydrology from access roads that are not surfaced with material would occur and would likely decrease in time due to reclamation efforts.

The direct impacts would be analyzed and mitigated at the APD level on a site specific basis. BLM specialists would verify the presence/absence of surface water and/or riparian habitat within 500 feet of any proposed oil or gas well location(s) and would determine the need for any location adjustments or additional stipulations/BMPs if and when APDs are submitted. The lessee should take the presence of surface water and/or riparian habitat and the potential 500 foot setback stipulation (Lease Order No. 1) into account when selecting potential well site locations within each of these parcels to minimize environmental and economic costs associated with avoiding/mitigating potential impacts to surface and ground water and/or riparian-wetland habitat.

The parcels may have existing ground water rights in the vicinity, that are used for municipal purposes, including drinking water. Any development and subsequent operation of oil or gas wells within any of these parcels should be done in as responsible a manner as possible to minimize potential impacts to drinking water sources, surface and ground water resources, riparian-wetland habitat, and other associated resources.

Water Quality

In the Wind River / Bighorn Basin District there is commonly produced water in association with oil and gas development. All produced water from federal leases must be disposed of by injection into the subsurface, into pits, or other acceptable methods approved by the authorized officer, including surface discharge under Natural Pollutant Discharge Elimination System (NPDES) permit. Injection is generally the preferred method of disposal. No surface water or ground water problems have been identified on the proposed leased parcels.

While the act of leasing the parcels would produce no impacts, subsequent development of the lease could lead to surface disturbance from the construction of well pads, access roads, pipelines, and power lines and could result in degradation of surface water quality and groundwater quality from non-point source pollution, especially from potentially increased soil erosion and sedimentation. Potential direct impacts could be brought about by soil disturbance due to construction of well pads, access roads, pipelines, and power lines, and may include increased surface water runoff, erosion, off-site sedimentation and dissolved constituents (salt loading) to downstream waters. Such hydrologic effects may cause changes in downstream channel morphology such as bed and bank erosion or accretion. The magnitude of these potential impacts

to water resources would depend on the proximity of the disturbance to the drainage channel, slope aspect and gradient, degree and area of soil disturbance, soil character, duration and time within which construction activity would occur, and the timely implementation and success or failure of mitigation measures. Direct impacts would likely be greatest shortly after the start of construction activities and would decrease in time due to proper implementation of Best Management Practices (BMP's) that would include proper design of facilities along with effective temporary stabilization measures that would promote permanent natural vegetative stabilization and reclamation of disturbed areas. Construction activities would occur over a relatively short period, and therefore the majority of the disturbance would be evident but short lived. Impacts to surface water quality could be managed (minimized) through the implementation, monitoring, and necessary adjustment of BMP's prescribed. However, short-term and minor impacts may occur during storm flow events. Petroleum products and other chemicals, accidentally spilled, could result in surface and groundwater contamination. Similarly, possible leaks from reserve and evaporation pits could degrade surface and ground water quality. Authorization of development projects would require compliance with BLM directives and stipulations that relate to surface and groundwater protection.

Parcel 081 is located near the town of Shoshoni's municipal water supply and part of the Boysen State Park Recreation Area. Should this lease be offered for sale and development occur, there could be risk of impacts from undesirable events to the Town of Shoshoni's municipal water supply from operations related to exploration and extraction of hydrocarbon resources.

Alternative 2

Parcel 081 (60 acres BOR and 60 acres BLM) will be recommended for deferral. This parcel is located near the town of Shoshoni's municipal water supply and part of the Boysen State Park Recreation Area. This parcel has also been recommended by the Wyoming Game and Fish Department to not be leased at this time for the same reasons stated. No additional impact beyond those analyzed in Alternative 1.

Alternative 3

Under the No Action Alternative not offering the lease parcels for sale would have no direct effect on the watershed hydrology or other water resources. The potential for changes in watershed conditions from development of lease parcels in the future would be withdrawn.

The removal of the lease parcels from the August 2011 Oil and Gas Competitive Lease Sale would eliminate any activities that would occur as a result of issuing them. Increased human activity/presence, related vehicle use, surveying, staking, etc. would not occur nor would any subsequent road, wellpad, pipeline, power line, or any other related construction occur. As a result, watershed function, hydrologic relationships, and surface/ground water quality present in and around the parcels would continue to be influenced by the activities presently occurring and those that have occurred in the past.

Air Quality

Alternative 1

Issuing leases for the subject tracts would have no direct impacts to air quality. Any potential effects to air quality would occur if and when the leases were developed.

Potential impacts of development could include increased air borne soil particles associated with the construction of new well pads, pipelines, or roads, exhaust emissions from drilling equipment,

compressors, vehicles, and dehydration and separation facilities, as well as potential releases of GHG and volatile organic compounds during drilling or production activities. The amount of increased emissions cannot be quantified at this time since it is unknown how many wells might be drilled, the types of equipment needed if a well were to be completed successfully (e.g. compressor, separator, dehydrator), or what technologies may be employed by a given company for drilling any new wells. The degree of impact will also vary according to the characteristics of the geologic formations from which production occurs. Emissions of all regulated pollutants (including GHGs) and their impacts will be quantified and evaluated at the time that a specific development project is proposed.

Alternative 1 proposes the most amount of land available for leasing and subsequent exploration and development and would therefore have the greatest impact to air resources among the three alternatives.

Alternative 2

Impacts associated with Alternative 2 would be similar to Alternative 1. However, constraints on disturbance size and distribution may reduce PM10 particulate matter. Increased timing restrictions would limit the number of days available for well pad construction and development compared to Alternative 1 and may result in concentration of emissions associated with these activities. Concentration of ozone precursors namely, VOCs, CO, and NOx, may incease ozone formation more than Alternative 1.

The issuance of leases in itself would not result in any direct greenhouse gas emissions. However, in regard to future development, the assessment of GHG emissions and climate change is in its formative phase. While it is not possible to accurately quantify potential GHG emissions in the affected areas as a result of making the proposed tracts available for leasing, some general assumptions however can be made: issuing the proposed tracts may contribute to drilling new wells. The Center for Climate Strategies (CCS) prepared the Wyoming Greenhouse Gas Inventory and Reference Case Projection 1990-2020 (Inventory) for the Wyoming Department of Environmental Quality (WYDEQ) through an effort of the Western Regional Air Partnership (WRAP). This inventory report presents a preliminary draft greenhouse gas (GHG) emissions inventory and forecast from 1990 to 2020 for Wyoming. This report provides an initial comprehensive understanding of Wyoming's current and possible future GHG emissions. The information presented provides the State with a starting point for revising the initial estimates as improvements to data sources and assumptions are identified.

The inventory report discloses that activities in Wyoming accounted for approximately 56 million metric tons (MMt) of gross carbon dioxide equivalent (CO2e) emissions in 2005, an amount equal to 0.8% of total US gross GHG emissions. These emission estimates focus on activities in Wyoming and are consumption-based; they exclude emissions associated with electricity that is exported from the State. Wyoming's gross GHG emissions increased 25% from 1990 to 2005, while national emissions rose by only 16% from 1990 to 2004. Annual sequestration (removal) of GHG emissions due to forestry and other land-uses in Wyoming are estimated at 36 MMtCO2e in 2005. Wyoming's per capita emission rate is more than four times greater than the national average of 25 MtCO2e/yr. This large difference between national and State per capita emissions occurs in most of the sectors – Wyoming's emission per capita significantly exceed national emissions per capita for the following sectors: electricity, industrial, fossil fuel production, transportation, industrial process and agriculture. The reasons for the higher per capita intensity in Wyoming are varied but include the State's strong fossil fuel production industry and other industries with high fossil fuel consumption intensity, large agriculture industry, large distances,

and low population base. Between 1990 and 2005, per capita emissions in Wyoming have increased, mostly due to increased activity in the fossil fuel industry, while national per capita emissions have changed relatively little.

Wyoming's gross GHG emissions are expected to continue to grow to 69 MMtCO2e by 2020, 56% above 1990 levels. As shown in Figure ES-3 of the Inventory, demand for electricity is projected to be the largest contributor to future emissions growth, followed by emissions associated with transportation. Although GHG emissions from fossil fuel production had the greatest increase by sector in the period 1990 to 2005, the growth from this sector is projected to decline due to assumption of decreased carbon dioxide emissions from venting at processing plants.

There are approximately 6475 existing Federal oil and gas wells in the Wind River / Bighorn Basin District, which account for approximately 18.3 percent of the total Federal wells in Wyoming. Therefore, GHG emissions from all wells within the Wind River / Bighorn Basin District amount to approximately 1.4896 metric tons annually (mt) (19.6 mt X 0.183 = 3.5868 mt).

Subsequent development of any leases issued, would contribute a small incremental increase in overall hydrocarbon emissions, including GHGs. When compared to total national or global emissions, the amount released as a result of potential production from the proposed lease tracts would not have a measurable effect.

Based on this emission factor, each potential well that may be drilled on these parcels, if issued, could emit approximately 0.00059 mt of CO2. It is unknown what the drilling density may be for these parcels, if they were to be developed; therefore, it is impossible to predict what level of emissions could occur from development at this stage under the proposed action.

Existing Federal Oil & Gas Wells per Field Office	Percent of total Federal wells in Wyoming	GHG emissions from all wells within the field office
Worland - 2688 wells	7.6%	1.4896 metric tons annually (mt) (19.6 mt X 0.076 = 1.4896 mt) assuming steady production and emission venting
Lander – 887	2.7%	.5292 metric tons annually (mt) (19.6 mt X 0.027 = 0.5292 mt) assuming steady production and emission venting
Cody – 2900	8%	1.57 metric tons annually (mt) (19.6 mt X 0.08 = 1.568 mt) assuming steady production and emission venting

The BLM holds regulatory jurisdiction over portions of natural gas and petroleum systems, identified in the EPA Inventory of US Greenhouse Gas Emissions and Sinks document. Exercise of this regulatory jurisdiction has led to development of "Best Management Practices (BMPs)" designed to reduce emissions from field production and operations. Analysis and approval of future development on the lease parcels would include applicable BMPs as conditions of approval (COAs) in order to reduce or mitigate GHG emissions. Additional measures developed at the

project development stage may be incorporated as COAs in the approved APD, which are binding on the operator.

Such mitigation measures may include, but are not limited to: Flare hydrocarbon and gases at high temperatures in order to reduce emissions of incomplete combustion through the use of multi-chamber combustors; “Green” (flareless) completions, Water dirt roads during periods of high use in order to reduce fugitive dust emissions; Require that vapor recovery systems be maintained and functional in areas where petroleum liquids are stored; Installation of liquids gathering facilities or central production facilities to reduce the total number of sources and minimize truck traffic, Use of natural gas fired or electric drill rig engines, The use of selective catalytic reducers on diesel-fired drilling engines; and, Re-vegetate areas of the pad not required for production facilities to reduce the amount of dust from the pads.

The EPA Inventory data show that adoption by industry of the Best Management Practices proposed by the EPA’s Natural Gas Energy Star program has reduced emissions from oil and gas exploration and development (Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006). The Worland Field Office will work with industry to facilitate the use of the relevant BMPs for operations proposed on federal mineral leases where such mitigation is consistent with agency policy.

Alternative 3

Due to demand for oil and gas, it is expected that these parcels may be re-nominated in the future, consistent with appropriate land use planning decisions, and would be offered for sale with additional stipulations. There is no way to accurately predict what level of restrictions future leasing may require, but it can be assumed that a substantial portion of the development that would occur under Alternative 1 would still be permitted under future leases. Nominations of parcels for lease under future land use plans and decisions would be screened for consistency with the land use plan in effect at the time, and the appropriate environmental review would be conducted to determine associated air quality impacts. Impacts to air quality from leases issued from any future sales would be analyzed in the appropriate environmental documents for those sales.

Soils

Alternative 1

The act of leasing these parcels would have no impact to the soil resource. Where development and production does occur, the impacts to the soil resource cannot be predicted until the site-specific APD stage development. For the purposes of protecting soil and water resources, surface disturbance will not be allowed on slopes greater than 25 percent. For the purposes of protecting soil and water resources, surface disturbance will not be allowed on slopes greater than 25 percent. Where development and production does occur, the impacts to the soil resource cannot be predicted until the site-specific APD stage development. Soils vary in their suitability for well pad and road development, and following disturbance, in their reclamation potential. Subsequent development of the lease would physically disturb the soil. The vegetation would be removed and the soil would be exposed to the erosive forces of rain drop impact and overland flow. The direct impacts from the construction of well pads, access roads and reserve pits include removal of vegetation, exposing the soil to the erosive forces of rain drop impact and overland flow, mixing horizons, compaction, loss of topsoil productivity and susceptibility to wind and water erosion. These could result in indirect impacts such as runoff, erosion, and off-site sedimentation. Contamination of soil from drilling and production wastes mixed into the soil or spilled on the soil surface could cause short–term and long-term reduction in site productivity. Some impacts can be

avoided or mitigated through proper design, construction, and maintenance, and implementation of best management practices, required in the Conditions of Approval (COA). Upon abandonment wells or when access roads are no longer in service, the Authorized Officer would issue instructions for surface reclamation and restoration of the disturbed areas as described in the COA.

Alternative 2

The application of additional Conditions of Approval and stipulations for the conservation and protection of the soil resource would not take place until on-the-ground activities are proposed; therefore, their impacts to the soil resource cannot be predicted as part of the leasing analysis. Nonetheless, impacts to the soil resource would be similar to those discussed under Alternative 1.

Alternative 3

Since no parcels would be leased under this alternative, there would be no effects to the soil resource beyond that of the current situation.

Grazing

Alternative 1

At the lease stage there are no impacts to livestock grazing. Indirect impacts to grazing would occur through vegetative disturbance with construction of access roads, well sites or pipelines. However, should development occur, impacts associated with surface disturbance would be monitored and adjustments made to allotment management would be considered on a case-by-case basis.

Alternative 2

Same as Alternative 1.

Alternative 3

Since no parcels would be leased under this alternative there would be no impacts to the grazing.

Vegetation

Alternative 1

Native Vegetation – There are no direct impacts from leasing parcels. Indirect impacts would be associated with any future development occurring should the proposed leases be issued. Leasing Terms and Conditions; in addition to laws, regulations, and policy, require that reclamation be completed in a timely manner that best represents pre-disturbance conditions. Best Management Practices would be implemented upon site-specific development to ensure proper reclamation is occurring that supports land management goals and objectives.

Invasive Species – Any surface disturbance can increase the probability of establishment of new populations of invasive non-native species, or increase of an existing weed population. At the APD stage, BLM requirements for use of weed control strategies would minimize the potential for spread of these species.

Threatened, Endangered, and BLM Sensitive Species – There are no direct impacts from leasing parcels. Indirect impacts would be associated with any future development occurring should the proposed leases be issued. There is potential for parcel 081 to contain three BLM sensitive species. At present these species are not known to occur. The lease could be issued as

nominated without additional stipulations regarding these species, and COA's later applied at the site specific stage of development.

Alternative 2

Native Vegetation and Invasive Species –For those areas recommended for sale, there would be no additional effects beyond those discussed in Alternative 1. For those areas recommended for deferral there would be no change from current existing probability for new invasive/noxious weed infestations to occur, or for increase of existing populations on those parcels.

Threatened, Endangered, and BLM Sensitive Species– No effects beyond those identified in Alternative 1 would be associated with Threatened, Endangered, and BLM Sensitive Species. However, a Controlled Surface Use stipulation would be added to parcel 081 to identify that the parcel may contain BLM sensitive species and special site specific mitigation may be required for future development.

Alternative 3

No change from current existing probability for new invasive/noxious weed infestations to occur, or for increase of existing populations. No resulting effects vegetation would be expected to occur beyond the current situation.

Wildlife—including Threatened, Endangered, BLM Sensitive Species

Alternative 1

Should the parcels be leased, post-lease development (pad/road/pipeline construction, and well drilling/completion/production operations) would likely cause temporary disruption of wildlife in the area. Post- lease actions (construction and drilling) during breeding and nesting periods for raptors, Mountain plover, burrowing owl, and the sagebrush obligates mentioned above, may cause disruption of breeding activities and impacts to nesting birds, such as egg or hatchling abandonment, or actual nest destruction for those species nesting on or near the ground. Construction, drilling, and/or completion operations on the parcels during the crucial big game wintering period could cause impacts to wintering mule deer and antelope, such as displacing animals to less suitable winter habitat and conceivably the displacement could result in increased stress and predation levels and decreased pregnancy rates and therefore population levels. Well-pad, road, and pipeline development into areas currently void of surface disturbing or disruptive activities may result in loss of habitat; which, depending on the intensity of the development, vegetative cover and terrain, could affect the habitat viability for all species mentioned above. Unless otherwise stated above, as prescribed by the Grass Creek and Washakie, Cody and Lander RMP's, wildlife impacts would be mitigated through seasonal restrictions.

Leasing parcels 091, 092, and 093, there would be no effect on black-footed ferret and all other listed species in the Cody Field Office. In addition to the specific stipulations for lease parcels, for these parcels there would be at the APD stage seasonal timing mitigation which would allow the construction and drilling without causing take under MBTA. There could be impacts to the wetlands on these leases which include increased erosion into the Shoshone River drainage which could impact Yellowstone cutthroat trout and northern leopard frog, however, these impacts may be minimized through BMPs and erosion control. Since there are raptor nests in the lease parcels, mitigation would be required to not cause take under MBTA.

See Appendix A for the specific wildlife stipulations applied to each parcel.

Alternative 2

Only specific parcels are recommended for deferral from leasing because of wildlife resources. Additional stipulations or mitigations are recommended for specific parcels as well. Depending on the parcel and related wildlife habitats of concern, should specific parcels be deferred from leasing for other resource concerns, those impacts to wildlife and wildlife habitats described in Alternative 1 would not occur. For those remaining parcels to be leased, impacts to wildlife would be the same as was described in Alternative 1.

Pertaining to parcels in the southeastern portion of the Bighorn basin, additional stipulations consistent with IM No. WY-2010- 012 are recommended as follows; Based on their inclusion in a sage grouse core area where sage grouse habitat exists in contiguous blocks of 11 or more square miles of manageable unleased federal land, parcels 056, 069–075, 078, 079, and 082 are recommended for deferral or partial deferral. The additional controlled surface use stipulation for the protection of sage grouse breeding, nesting, and early brood-rearing habitat within a sage grouse core area will be applied to the remaining parcels. The seasonal stipulation for the protection of sage grouse wintering areas will be applied to parcels 059, 062, and 068. Additional stipulations for the protection of raptor nests will be applied to parcels 057, 067, and 068.

Additional stipulations would be added to parcel 081. A CSU for protection of Cynomys leucurus (White-tailed prairie dog); Charadrius montanus (Moutain plover) would be applied for notification that should these species be identified on the parcel that further mitigation may be required for future development activities.

Alternative 3

Under this alternative none of the parcels would be leased. There would be no subsequent surface disturbing or disruptive activities to the wildlife or their habitats caused by the post-lease development activities, and therefore no environmental consequences can be identified, analyzed or mitigated. No resulting effects on wildlife habitat would be expected to occur beyond the current situation.

Recreation and Visual Resources

Alternative 1

Recreation

While the act of leasing Federal minerals produces no direct impacts; subsequent development of a lease could generate impacts to recreation activities. Recreational use could be impacted by post-lease oil and gas development activities. The quality of the recreational experience would likely be altered by oil and gas development operations. Recreation on split estate lands would be at the discretion of the private landowner.

Oil and gas development in areas providing for exceptional semi-primitive recreational opportunities may compromise these experiences, and interfere with those desiring such experiences. Altering the settings could introduce goal interference, which may increase the amount of conflicts (from industry vs. recreationists, and recreation uses vs. recreation uses), reduce user satisfaction levels, alter experiences, and result in non-beneficial outcomes.

Impacts to other resources could also impact recreational opportunities and associated recreational resources. Construction and drilling operations could potentially cause game animals and birds to move away from the activity. If such post-lease development operations coincide with

hunting season, it is expected that hunters may experience reduced success rates due to the additional human presence within the immediate and surrounding areas. In addition to facilitating mineral extraction, new oil and gas roads would also provide better access to the lease areas for recreational opportunities. However, the presence of oil and gas facilities could diminish the recreational experience.

Visual Resource Management

Leasing the Federal minerals will not impact visual resources, but the subsequent development of the leases will generate impacts to visual resources. Development of the leases will introduce contrasting elements of line, form, color, and texture against the surrounding natural elements. Contrasting linear elements will be observed in the distinct lines generated by facilities, powerpoles, well pads, and access routes. Contrasting elements of form, color, and texture will be observed in the ancillary facilities, access routes, and the well pads. These contrasting elements could interfere with the casual observer and take the attention away from the natural elements. Most of the BLM-administered public lands within the lease parcels are managed as VRM Class IV, which allows for a high degree of change in the elements in the landscape. Mitigation will need to be applied to development within the Class II areas in order to maintain the Class II objectives. Mitigation may need to be applied to Class III areas, although Class III allows for more visible intrusions on the landscape.

The VRM Class II objective is to retain existing landscape character. The level of change to the characteristic landscape should be low. Management activities should not attract the attention of the casual observer. Changes would be required to repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. Modifications to a proposal could be required if the proposed change cannot be adequately mitigated to retain the character of the landscape.

The VRM Class III objective is to partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. Facilities, such as produced water, condensate or oil storage tanks that rise above eight feet, would provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line. The construction of an access road, well pad and other ancillary facilities, other than facilities greater in height than thirteen feet, would slightly modify the existing area visual resources. Facilities, such as condensate and produced water or oil storage tanks that rise above thirteen feet, could provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line.

The VRM Class IV objective is to provide for management activities which require major modification of the existing landscape character. However; project modifications could be made to reduce or eliminate activity impacts through careful location, minimal disturbance, and repeating the basic landscape elements. Facilities, such as condensate and produced water or oil storage tanks, that rise above eight feet, could provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line. The construction of an access road, well pad and other ancillary facilities could slightly modify the existing area visual resources.

Since well locations cannot be accurately determined at the leasing stage, it is not possible to accurately predict the visual impacts. Development intensity, terrain, and proximity to visual receptors (e.g., main travel corridors, towns, recreation facilities, etc.) will influence the VRM impacts. For example, a single well pad screened by terrain at an area absent of visual receptors would have low to negligible impacts in Class III or IV areas; whereas well pads developed next to a major travel route in the viewshed town or recreation facility may have substantial impact. It is possible that post-lease industrial development could result in portions or all of a VRM area to be downgraded to a lower classification.

Parcel 083 is located within an area managed for VRM Class II characteristics. A CSU stipulation has been applied for this alternative and site specific mitigation would be developed should the parcel be sold and developed. The Standard Environmental Colors Chart would be used on all facilities to closely approximate the vegetation within the setting. All above ground facilities would be painted one of these colors as determined during a site-specific review. If the proposed area is in a scenic corridor use of landscape features for screening, use of low profile and/or offsite production facilities may be recommended.

Alternative 2

Recreation

Impacts to recreation would be the same as those analyzed in Alternative 1, with the exception of impacts not present in the deferred parcels.

Visual Resource Management

Impacts to VRM would be the same as those analyzed in Alternative 1, only to a lesser degree because the deferred parcels will not introduce contrasting elements of form, line, color, and texture.

Alternative 3

The lease parcels nominated would not be available for sale. No resulting effects on recreation, travel and transportation management, or visual resources would be expected to occur beyond the current situation.

Cultural and Historical Resources

Alternative 1

Cultural resource sites are known to occur within the lease parcels within the Wind River / Bighorn Basin District. There are no direct impacts from leasing to cultural resources. However, subsequent development after lease issuance could damage or destroy surface and buried cultural sites if they are discovered and not properly protected. A Class III cultural resource inventory would be completed prior to surface disturbance at the site—specific application stage. Avoidance, project modifications or mitigation measures would be developed once the site-specific inventory is completed.

If parcel 081 were sold and subsequently developed, there could be an impact to visual effects to the historic Lander to Thermopolis Road.

Alternative 2

Same as Alternative 1; however under alternative 2, parcel 081 would be recommended for deferral to protect other resource conflicts. As such, there would be no visual effects to the historic Lander to Thermopolis Road.

To provide protection to the Meeteetse Draw Rock Art Area a No Surface Occupancy stipulation is added to parcel 084 and the North half of Section 1 in parcel 087 per the Grass Creek RMP (September 1998, Map 6).

Alternative 3

Under the No Action Alternative, the proposed Action would not occur. No resulting effects on cultural resources would be expected to occur beyond the current situation.

Socioeconomics

Alternative 1

Under this alternative all parcels would be offered for lease. This would allow the most revenue for the Federal and State government. In addition, subsequent development and production is anticipated to be highest under this alternative. This would result in the greatest amount of royalties among the three alternatives.

Alternative 2

Under this alternative, not all parcels would be offered for lease. This would result in a reduction in revenue compared to Alternative 1 for the Federal and State government. The actual amount of the reduction is not known. Subsequent development and production would result in fewer royalties than Alternative 1.

Alternative 3

Under this alternative, no leases would be issued and no development under those leases would occur. As primarily rural communities that rely heavily on energy development revenue and agricultural uses, the communities in the leasing areas are likely to be negatively impacted by loss of potential revenue from subsequent development of these parcels. It is an assumption that the No Action Alternative (no lease option) may result in a slight reduction in domestic production of oil and gas. This would likely result in reduced Federal and State royalty income, and the potential for Federal land to be drained by wells on adjacent private or state land.

Special Management Areas (WSA, ACEC, Multiple Use Lands with Wilderness Characteristics)

Alternative 1

Leasing all parcels, including those within the areas inventoried as containing wilderness characteristics and analyzed in the Bighorn Basin RMP revision, will not impact wilderness characteristics, but subsequent development of the leases within these areas may impact the characteristics of naturalness, size, solitude and recreation. If access routes to proposed oil and gas projects dissect through the areas it would dramatically decrease the 5,000 acre or sufficient size criteria, which may ultimately eliminate the area from future wilderness characteristics inventory maintenance. The access roads, facilities, and oil and gas activities would eliminate the characteristics of naturalness, and outstanding opportunities for solitude and primitive recreation.

The facilities, routes, and activities will introduce unnatural and contrasting elements to the surrounding environment, which will compromise these characteristics. Mitigation measures from other resources will maintain a more subordinate presence, but will not eliminate these contrasting elements.

Parcel 082 is located within proximity to Cedar Mountain WSA. There would be no direct impacts to the WSA from the sale of the lease. Development of the lease may influence the wilderness characteristics of naturalness and solitude within the WSA.

Measures to reduce visual impacts and/or avoidance would be imposed wherever areas with wilderness characteristics are affected. Should parcels 060, 079, and 086 be sold, the leases would be managed in accordance with mitigation measures or best management practices prescribed in the supporting RMPs Record of Decision.

Alternative 2

All parcels were screened for resource values potentially containing wilderness characteristics. Under this alternative 35 parcels and 3 partial parcels would be offered. Lands within the three (3) parcels would be partially deferred from the August 2011 sale (refer to Appendix C) since portions of these lease parcels were inventoried as potentially containing wilderness characteristics.

Alternative 3

Under the No Action Alternative, the development of the proposed Action would not occur. No resulting effects on special management areas, multiple use lands with wilderness characteristics or WSAs would be expected to occur beyond the current situation.

Wastes, Hazardous or Solid

Alternative 1

Should a parcel be leased and developed, generation and temporary storage of waste materials (solid and liquid) would likely occur. Any potential for waste impact would not occur until post-lease development activities are initiated. Impacts could be in the form of drilling fluid spills, solid chemical spills, trash scatter on and off the well pads, and hydrocarbon or gas releases. They would be managed in accordance with Onshore Orders 1 & 7, Resource Conservation and Recovery Act (RCRA), applicable Wyoming Department of Environmental Quality (WDEQ) regulations, and Wyoming Oil and Gas Conservation Commission (WOGCC) rules. As well as, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which that provides for the exclusion of petroleum (including crude oil or any fraction thereof) from the definition of hazardous substance, pollutant, or contaminant. Additionally, waste management requirements are included in the 13 point surface use plan and the 8 point drilling plan attached to the APDs. Fluids associated with any subsequent drilling and/or production would either be treated, evaporated, or transferred to an approved WDEQ treatment facility; solids would be treated on site or transferred to a WDEQ approved facility.Companies would be required to have approved Spill Prevention Control and Countermeasure Plans and comply with NTL-3A for reporting of undesirable events.

The lease parcels fall under environmental regulations that impact exploration and production waste management and disposal practices and impose responsibility and liability for protection of human health and the environment from harmful waste management practices or discharges.

Alternative 2

Same as Alternative 1.

Alternative 3

Under the No Action Alternative, the development of the proposed Action would not occur. No resulting effects on resources from wastes would be expected to occur beyond the current situation.

Environmental Justice

Alternative 1

No minority or low income populations would be directly affected in the vicinity of the proposed actions from subsequent proposed oil or gas projects. Indirect impacts could include impacts due to overall employment opportunities related to the oil and gas and service support industry in the region, as well as the economic benefits to State and County governments related to royalty payments and severance taxes.

Alternative 2

No further impacts are expected beyond those analyzed in Alternative 1.

Alternative 3

Under the No Action Alternative, the development of the proposed Action would not occur. No resulting effects on Environmental Justice would be expected to occur beyond the current situation.

Public Health and Safety

Alternative 1

Public Health and Safety would not be impacted by the leasing of the parcels. Vehicle and equipment operations associated with the subsequent construction, drilling, and production operations could affect members of the public using the same roads and general areas. Releases of gas from the well bore and spills could also affect members of the public in the vicinity. The level of affect would depend on the product released or spilled and the receptors susceptibility.

The operator may be required to prepare and implement safety contingency plans and comply with NTL-3A.

Alternative 2

Same as Alternative 1.

Alternative 3

Under the No Action Alternative, the development of the proposed Action would not occur. No resulting effects on public health and safety would be expected to occur beyond the current situation.

Cumulative Effects

There are approximately 2,688 Federal producing wells in the Worland Field Office; there are no producing coalbed methane production wells. Analysis of cumulative impacts for reasonably

foreseeable development (RFD) of oil and gas wells on public lands in the Worland Field Office was published in 2009 for the Bighorn Basin RMP revision. Potential development of all available federal minerals in the field office, including those in the proposed lease parcels, was included as part of the analysis.

There are approximately 877 federal producing wells in the Lander Field Office; of which 15 wells are coalbed natural gas wells. Analysis of cumulative impacts for reasonably foreseeable development (RFD) of oil and gas wells on public lands in the Lander Field Office is presented in the 1987 Lander Resource Management Plans (RMP). Potential development of all available federal minerals in the planning area, including those in the proposed lease parcels, was included as part of the analysis.

There are approximately 2,900 Federal producing wells in the Cody Field Office, which are predominately oil and gas production wells. Analysis of cumulative impacts for reasonably foreseeable development (RFD) of oil and gas wells on public lands in the Cody Field Office was published in 2009 for the Bighorn Basin RMP revision. Potential development of all available federal minerals in the field office, including those in the proposed lease parcel, was included as part of the analysis.

In accordance with Wyoming Oil and Gas Conservation Commission (WOGCC) rules, well spacing in the Big Horn and Wind River Basins is 40 acres for oil wells and 40 acres for gas wells. Operators could request variances to these spacing rules through the WOGCC. It is unknown what the drilling density may be for these parcels, if they were to be developed; therefore, it is impractical to predict what level of surface disturbance could occur from development at this stage under the proposed action.

The direct and indirect impacts identified in this EA are unlikely to be individually significant. Ongoing multiple use actions within the Wind River / Bighorn Basin District will not add to the impacts associated with this analysis.

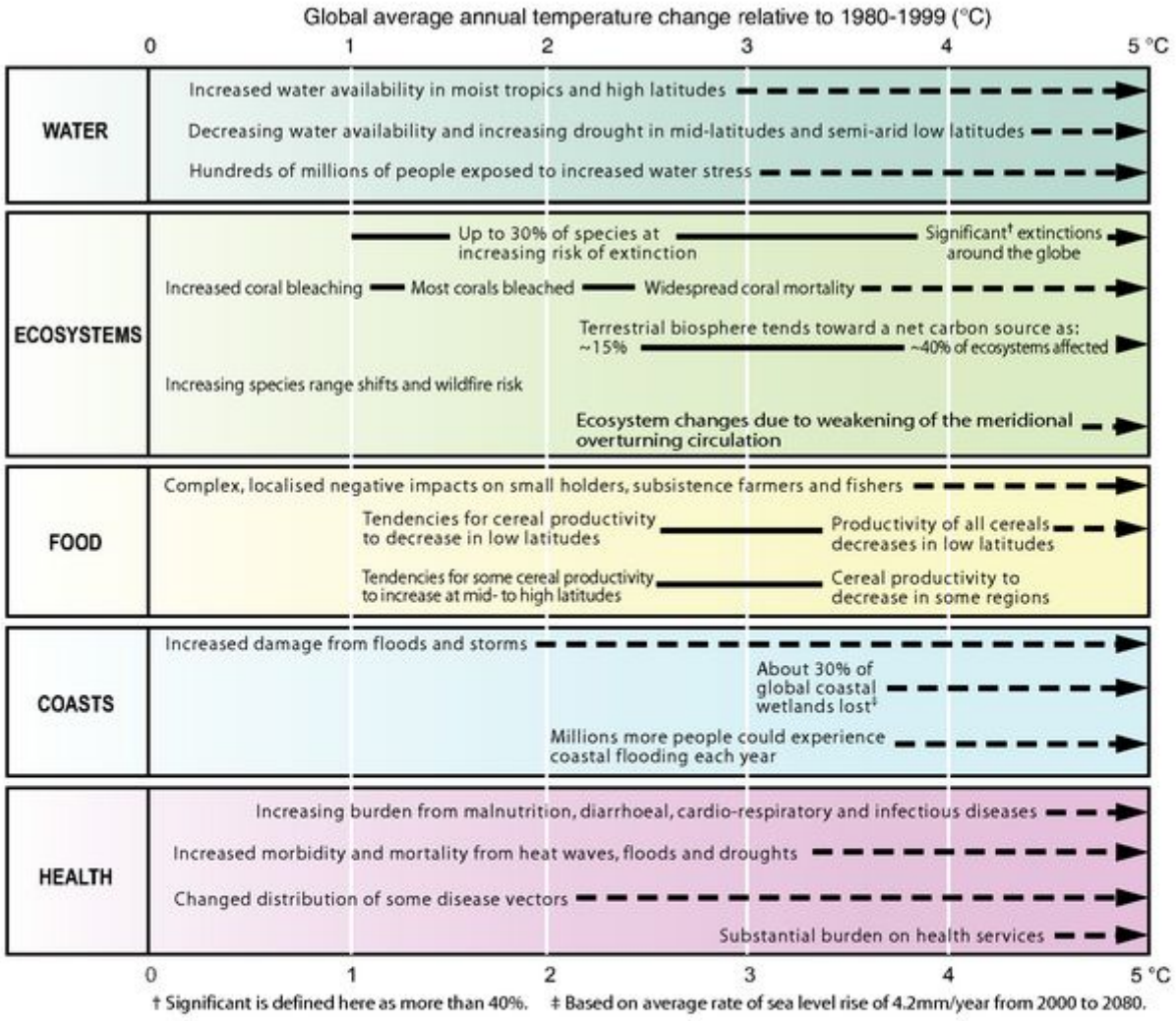
Green House Gas Emissions

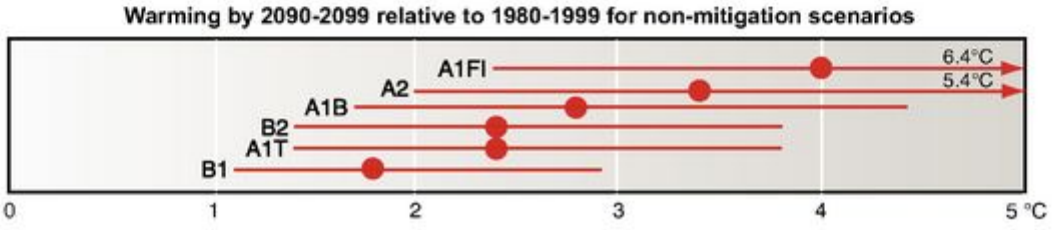
As described in the analysis of environmental consequences, the proposed action and/or the alternative may contribute to the effects of climate change to some extent through GHG emissions. However, it is not currently possible to associate any of these particular actions with the creation of any specific climate-related environmental effects. The lack of scientific tools designed to predict climate change at regional or local scales limits the ability to quantify potential future impacts.

The assessment of greenhouse gas (GHG) emissions and climate change is still in its formative phase; therefore, it is not yet possible to know with confidence the net impact on climate. However, the Intergovernmental Panel on Climate Change (IPCC 2007) recently concluded that "warming of the climate system is unequivocal" and "most of the observed increase in globally average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic [man-made] greenhouse gas concentrations." As the temperatures of the land and sea change, environmental factors such as weather patterns, sea levels, precipitation rates, the timing of the seasons, desert distribution, forest cover, and ocean salinity will also change. These changes influence the world's climate systems and will have different impacts to different areas. Some agricultural regions may become more arid while others become wetter; some mountainous areas will experience greater summer precipitation, yet experience disappearing snowpack.

The average number of oil and gas wells drilled annually in the Wind River / Bighorn Basin District and probable GHG emission levels, when compared to the total GHG emission estimates from the total number of Federal oil and gas wells in the State, represent an incremental contribution to the total regional and global GHG emission levels. This incremental contribution to global GHG gases cannot be translated into incremental effects on climate change globally or in the area of these site-specific actions. As oil and gas and natural gas production technology continues to improve in the future, one assumption is that it may be feasible to further reduce GHG emissions.

Based on research compiled for the International Panel on Climate Change Fourth Assessment Report, 2007, potential effects of climate change on resources in the affected environment are likely to be varied. Figure 4.1, taken from the Fourth Assessment Report indicates varying responses of the natural world to increasing temperatures as a result of increasing global temperatures.





Within North America, the report specifically forecasts that: Warming in western mountains is projected to cause decreased snowpack, more winter flooding and reduced summer flows, exacerbating competition for over-allocated water resources; in the early decades of the century, moderate climate change is projected to increase aggregate yields of rain-fed agriculture by 5 to 20%, but with important variability among regions; major challenges are projected for crops that are near the warm end of their suitable range or which depend on highly utilized water resources; cities that currently experience heat waves are expected to be further challenged by an increased number, intensity and duration of heat waves during the course of the century, with potential

for adverse health impacts and coastal communities and habitats will be increasingly stressed by climate change impacts interacting with development and pollution. Specific modeling and/or assessments of the potential effects for the Worland Field Office and for the State of WY currently do not exist.

In 2001, the Intergovernmental Panel on Climate Change (IPCC) pointed out that by the year 2100, global average surface temperatures would increase 2.5 to 10.4°F above 1990 levels (IPCC 2007). The National Academy of Sciences (2006) has confirmed these findings, but also indicated that there are uncertainties regarding how climate change may affect different regions. Computer model forecasts indicate that increases in temperature will not be evenly or equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures.

Regarding the linkage between climate change related warming and associated impacts, an assessment of the IPCC states that difficulties remain in attributing observed temperature changes at smaller than continental scales. Therefore, it is currently beyond the scope of existing science to predict climate change on regional or local scales resulting from specific sources of GHG emissions. Emissions of all regulated pollutants (including GHGs) and their impacts will be quantified and evaluated at the time that a specific development project is proposed.

IPCC also discloses that significant uncertainties remain with respect to the estimates of the current level of emissions and projections of future production of fossil fuels as the oil and gas industry is difficult to forecast with the mix of drivers: economics, resource supply, demand, and regulatory procedures. The assumptions used for the projections, based on recent trends or State production trends in the near-term, and AEO2006 growth rates through 2020, do not include any significant changes in energy prices, relative to today's prices. Large price swings, resource limitations, or changes in regulations could significantly change future production and the associated GHG emissions. Other uncertainties include the volume of GHGs vented from gas processing facilities in the future, any commercial oil shale or coal-to-liquids production, and potential emissions-reducing improvements in oil and gas production, processing, and pipeline technologies.

There are currently no proposals for renewable energy projects in the Cody or Worland Field Office that could potentially contribute additional GHG emissions.

One wind development project has been proposed that encompasses a portion of both the Lander and Casper Field Offices. The proposed project, "Black Mountain", is a 105 MW wind energy facility comprised of: 3,880 acres of BLM administered public lands (2,600 acres or 67% in the Casper Field Office and 1,280 acres or 33% in the Lander Field Office), 50 turbine towers approximately 260' in height (43 on BLM and 7 on private), 14.6 miles of 3-phase overhead transmission line (14.1 on BLM and 0.5 on private), 16.6 miles of road (14.3 on BLM 2.3 on private), 2 substations (both located on BLM), and 28.1 acres of underground collector electrical system (23.6 on BLM and 4.5 on private). The estimated acres of ground disturbance for all project features is 224.9 temporary acres (205.1 on BLM and 19.8 on private) and permanent acres is 40.7 (36.3 on BLM and 4.4 on private). None of the parcels nominated for the August 2011 sale would be impacted by this proposed wind development project.

Tribes, Individuals, Organizations, or Agencies Consulted:

In addition to BLM Interdisciplinary Team review of the parcels in relationship to the decisions set forth in the RMP's, BLM has also coordinated the review of the list with the local Wyoming Game and Fish Department personnel.

Table 2. List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination
Wyoming Game & Fish Dept. Cody and Lander Regional Office Review Teams	WGFD/BLM MOU Appendix G
Wyoming State Historical Preservation Office	Section 106 Wyoming State Protocol

List of Preparers

Table 3. List of Prepares

Name	Title
Stuart Cerovski	Lands & Minerals Resource Advisor
Jim Wolf	Resources Advisor
Holly Elliott	NRS – Worland Team Lead
David Seward	NRS – Cody Team Lead
Debra Larsen	LLE — Lander Team Lead
Caleb Hiner	District P&EC
Worland Field Office ID Team Members	
Paul Rau	Outdoor Rec. Planner
Steve Kiracofe	Soil Scientist
Tim Stephens	Wildlife Biologist
Ted Igleheart	Wildlife Biologist
Mike Tietmeyer	Supervisory Rangeland Management Specialist
Karen Hepp	Rangeland Management Specialist
CJ Grimes	NRS/Invasive Species
Jared Dalebout	Hydrologist
Marit Bovee	Archaeologist
Lander Field Office ID Team Members	
Jared Oakleaf	Outdoor Rec. Planner
Greg Bautz	Soil Scientist
Tim Vosburgh	Wildlife Biologist
Judi Mott	Rangeland Management Specialist
Karina Bryan	Archaeologist
Cody Field Office ID Team Members	
Destin Harrell	Wildlife Biologist
Kierson Crume	Archaeologist
Gretchen Hurley	Geologist
Jerry Jech	Natural Resource Specialist
Wyoming State Office Review Team	
Travis Bargsten	Natural Resource Specialist

References

EPA Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006. Environmental Protection Agency, Washington, D.C.

EPA, Natural Gas Star Program (2006 data) at: http://www.epa.gov/gasstar/accomplish.htm. Environmental Protection Agency, Washington, D.C.

Goddard Institute for Space Studies. 2007. Annual Mean Temperature Change for Three Latitude Bands. Datasets and Images. GISS Surface Temperature Analysis, Analysis Graphs and Plots. New York, New York. (Available on the Internet: http://data.giss.nasa.gov/gistemp/graphs/Fig.B.lrg.gif.)

Ramanthan V. and G. Carmichael. 2008. Global and regional climate changes due to black carbon. Nature Geoscience. 1, pp. 221-227.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Basis (Summary for Policymakers). Cambridge University Press. Cambridge, England and New York, New York. (Available on the Internet: http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf)

IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.

National Academy of Sciences. 2006. Understanding and Responding to Climate Change: Highlights of National Academies Reports. Division on Earth and Life Studies. National Academy of Sciences. Washington, D.C. (Available on the Internet: http://dels.nas.edu/basc/Climate-HIGH.pdf.)

U.S. Department of the Interior, Bureau of Land Management Instruction Memorandum, WY-2010-012, dated December 29, 2009, " Greater Sage-Grouse Habitat Management Policy on Wyoming Bureau of Land Management (BLM) Administered Public Lands including the Federal Mineral Estate"

U.S. Department of the Interior, Bureau of Land Management Instruction Memorandum, WY-2010-013, dated December 29, 2009, "Oil and Gas Leasing Screen for Greater Sage-Grouse"

U.S. Department of the Interior, Bureau of Land Management.1998 Grass Creek Resource Management Plan and Final Environmental Impact Statement. Worland, Wyoming.

U.S. Department of the Interior, Bureau of Land Management. 1988. Washakie Resource Management Plan and Final Environmental Impact Statement. Worland, Wyoming.

U.S. Department of the Interior, Bureau of Land Management. 1990. Cody Resource Management Plan and Final Environmental Impact Statement. Cody, Wyoming.

U.S. Department of the Interior, Bureau of Land Management. 1986. Lander Resource Management Plan and Final Environmental Impact Statement. Lander, Wyoming.

Authorities

The Federal Land Policy and Management Act, as amended. Public Law 94-579.

The Mineral Leasing Act of 1929, as amended.

Code of Federal Regulations (CFR) 3100

40 CFR All Parts and Sections inclusive Protection of Environment, Revised as of July 1, 2001.

43 CFR, All Parts and Sections inclusive - Public Lands: Interior. Revised as of October 1, 2000.

U.S. Department of the Interior, Bureau of Land Management and Office of the Solicitor (editors). 2001.

Alternative 1 – Lease Parcels as Nominated for Aug. 2011 Lease Sale

Worland Field Office Nominated Parcel List

WY-1108-056 2500.580 Acres
T.0440N, R.0880W, 06th PM, WY
Sec. 008 LOTS 1;
008 N2,SW,N2SE,SWSE;
009 LOTS 1-4;
009 N2,N2S2;
010 ALL;
011 LOTS 1-5;
011 N2NE,SWNE,W2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-057 1996.540 Acres
T.0430N, R.0900W, 06th PM, WY
Sec. 004 LOTS 5,6;
004 S2NW,S2;
004 TR 38D,38E,38F,38G,38H;
004 TR 38I,38N,38O;
005 LOTS 5-8;
005 S2N2,S2;
006 LOTS 8-15;
006 S2NE,E2SW,SE;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-058 1234.940 Acres
T.0430N, R.0900W, 06th PM, WY
Sec. 007 LOTS 5-8;
007 E2,E2W2;
008 E2,NW,W2SW;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-059 2486.580 Acres
T.0430N, R.0900W, 06th PM, WY
Sec. 019 LOTS 5-8;
019 E2,E2W2;
020 ALL;
029 ALL;
030 LOTS 7;
030 E2,E2W2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-060 1233.640 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 001 LOTS 5-8;
001 S2;
002 LOTS 5-8;
002 S2;
003 LOTS 5-8;
003 S2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-061 1967.950 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 007 LOTS 5-8;
007 E2;
007 TR 37A,37B,37C,37D,37E;
007 TR 37F,37G,37H;
008 ALL;
018 LOTS 5-8;
018 E2;
018 TR 37I,37J,37K,37L,37M;
018 TR 37N,37O,37P;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation

TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-062 1920.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 010 ALL;
011 ALL;
012 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-063 2240.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 017 ALL;
020 SE;
021 N2;
025 S2N2,S2;
026 ALL;
Washakie County
Worland FO

Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-064 1880.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 028 ALL;
032 W2NE,SENE,NW,S2;
033 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-065 1280.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 034 ALL;
035 ALL;
Washakie County

Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-066 1228.230 Acres
T.0420N, R.0920W, 06th PM, WY
Sec. 005 LOTS 1-4;
005 S2N2,S2;
006 LOTS 1-3,8-11;
006 S2NE,SENW,E2SW,SE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-067 1797.180 Acres
T.0430N, R.0920W, 06th PM, WY
Sec. 005 LOTS 7-16;
005 S2N2;
006 LOTS 17-20;

007 LOTS 5-8;
007 E2,E2W2;
008 LOTS 1,2;
008 SENE,W2E2,W2,NESE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-068 1319.810 Acres
T.0430N, R.0920W, 06th PM, WY
Sec. 031 LOTS 5-11;
031 NE,E2NW,NESW,N2SE;
032 LOTS 1-6;
032 TR 61;
033 W2NE,SENE,NW,N2SW,NWSE;
033 TR 61;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-069 2270.740 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 003 LOTS 5-8;
003 S2N2,S2;
004 LOTS 5-8;
004 S2N2,S2;
005 LOTS 5-8;
005 S2N2,S2;
006 LOTS 8-14;
006 S2NE,SENW,E2SW,SE;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-070 2555.040 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 007 LOTS 5-8;
007 E2,E2W2;
008 ALL;
020 ALL;
021 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-071 2480.000 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 009 E2,NW,W2SW;
010 ALL;
011 ALL;
012 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-072 2513.540 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 013 N2,SW,W2SE,SESE;
017 ALL;
018 LOTS 5-8;
018 E2,E2W2;
019 LOTS 5-8;
019 E2,E2W2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2

Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-073 2240.000 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 022 ALL;
023 ALL;
025 S2;
026 SWNE,NW,S2;
035 N2NE,NENW;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-074 1920.000 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 027 ALL;
028 ALL;
033 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2

Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-075 2551.640 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 029 ALL;
030 LOTS 5-8;
030 E2,E2W2;
031 LOTS 5-8;
031 E2,E2W2;
032 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-076 1599.640 Acres
T.0430N, R.0930W, 06th PM, WY
Sec. 001 LOTS 1,2;
001 SWNE,SW,W2SE,SESE;
001 SENE (INCL THAT PART OF
001 TRACT 37E LYING IN THE
001 SENE)
001 NESE (INCL THAT PART OF
001 TRACT 37E LYING IN THE
001 NESE);
003 SWSW;
004 LOTS 3,4;
004 S2NW,SW,S2SE,NESE;
005 LOTS 1-4;

005 S2N2,S2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-077 2560.000 Acres
T.0430N, R.0930W, 06th PM, WY
Sec. 009 ALL;
010 ALL;
011 ALL;
012 ALL;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-078 1939.380 Acres
T.0440N, R.0930W, 06th PM, WY
Sec. 001 LOTS 1-7;

001 SWNE,S2NW,SW,W2SE;
002 LOTS 1-4;
002 S2N2,S2;
012 LOTS 1-4;
012 W2E2,W2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-079 1933.360 Acres
T.0440N, R.0930W, 06th PM, WY
Sec. 005 LOTS 1-4;
005 S2N2,S2;
009 LOTS 1-4;
009 N2N2,S2;
015 ALL;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.

WY-1108-080 1875.810 Acres
T.0440N, R.0930W, 06th PM, WY
Sec. 026 N2;
027 ALL;
028 N2;
031 LOTS 4;
031 SESW;
032 SESW,S2SE;
034 N2,N2SE;
Hot Springs County
Worland FO
Formerly Lease No.

Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-082 482.040 Acres
T.0440N, R.0940W, 06th PM, WY
Sec. 001 LOTS 1-3,5-7;
001 SWNE,SENW,E2SW,W2SE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.

WY-1108-083 2280.000 Acres
T.0440N, R.0940W, 06th PM, WY
Sec. 013 ALL;
014 NENE,S2N2,S2;
023 NW,SE;
024 NENE;
025 ALL;
026 N2SE,SESE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Worland Field Office GIS database; (3) protecting Class I and/or Class II Visual Resource Management Areas.

WY-1108-084 624.600 Acres
T.0430N, R.0950W, 06th PM, WY
Sec. 006 LOTS 1-4;
006 E2,E2W2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-085 190.220 Acres
T.0450N, R.0950W, 06th PM, WY
Sec. 025 LOTS 2,3,6,7;
025 LOT 1 (EXCL 12.40 AC;
025 LYING WITHIN RR ROW;
025 WYW0119607);
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-086 1261.480 Acres
T.0450N, R.0950W, 06th PM, WY
Sec. 034 LOTS 1-16;
035 LOTS 1-16;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1

Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-087 1120.000 Acres
T.0430N, R.0960W, 06th PM, WY
Sec. 001 ALL;
002 E2,SENW,NESW,S2SW;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

WY-1108-088 311.580 Acres
T.0440N, R.0960W, 06th PM, WY
Sec. 003 LOTS 3-4;
003 S2NW,SW;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation

TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

WY-1108-089 1321.230 Acres
T.0440N, R.0970W, 06th PM, WY
Sec. 001 LOTS 3-7;
001 SWNE,W2SE;
002 S2S2;
003 LOTS 1-4;
003 S2N2,SW,NESE,S2SE;
010 N2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.

WY-1108-090 1923.920 Acres
T.0440N, R.0970W, 06th PM, WY
Sec. 011 ALL;
013 LOTS 1-4;
013 W2E2,W2;
014 ALL;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

Cody Field Office Nominated Parcels

WY-1108-091 790.160 Acres
T.0540N, R.0970W, 06th PM, WY
Sec. 005 LOTS 1-4;
005 S2N2,S2;
006 LOTS 9;
006 SENE,E2SE;
Big Horn County
Cody FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Apr 10 to Jul 10; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Long Billed curlew and/or Mountain plover.
CSU (1) Surface occupancy or use within 500' of riparian areas will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting aquatic, watershed and riparian areas.

WY-1108-092 90.000 Acres
T.0550N, R.0970W, 06th PM, WY
Sec. 029 W2W2NENW,W2NW;
Big Horn County
Cody FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Apr 10 to Jul 10; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Long Billed curlew and/or Mountain plover.
CSU (1) Surface occupancy or use within 500' of riparian areas will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting aquatic, watershed and riparian areas.

WY-1108-093 399.240 Acres
T.0540N, R.0980W, 06th PM, WY
Sec. 002 LOTS 1-4;
002 S2N2,N2SE;
Park County
Cody FO

BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Apr 10 to Jul 10; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Long Billed curlew and/or Mountain plover.
CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of the trail, whichever is closer, may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting cultural and scenic values of the Bridger Trail.

CSU (1) Surface occupancy or use within 500' of riparian areas will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting aquatic, watershed and riparian areas.

Lander Field Office Nominated Parcel List

WY-1108-081 120.000 Acres
T.0380N, R.0940W, 06th PM, WY
Sec. 029 N2NW,SENW;
Fremont County
Lander FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Lander Field Office GIS database; (3) protecting big game on crucial winter range.

Alternative 2 – Lease Parcels Reviewed and Modified

Worland Field Office Reviewed and Modified Parcel List

WY-1108-056 2500.580 Acres

T.0440N, R.0880W, 06th PM, WY
Sec. 008 LOTS 1;
008 N2,SW,N2SE,SWSE;
009 LOTS 1-4;
009 N2,N2S2;
010 ALL;
011 LOTS 1-5;
011 N2NE,SWNE,W2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Grass Creek Planning Area wildlife GIS Database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-056 per IM WY-2010-013

WY-1108-057 1996.540 Acres
T.0430N, R.0900W, 06th PM, WY
Sec. 004 LOTS 5,6;
004 S2NW,S2;
004 TR 38D,38E,38F,38G,38H;
004 TR 38I,38N,38O;
005 LOTS 5-8;
005 S2N2,S2;
006 LOTS 8-15;
006 S2NE,E2SW,SE;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:

Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Grass Creek Planning Area wildlife GIS Database; (3) protecting Greater sage-grouse breeding habitat.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-058 1234.940 Acres
T.0430N, R.0900W, 06th PM, WY
Sec. 007 LOTS 5-8;
007 E2,E2W2;
008 E2,NW,W2SW;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-059 2486.580 Acres
T.0430N, R.0900W, 06th PM, WY

Sec. 019 LOTS 5-8;
019 E2,E2W2;
020 ALL;
029 ALL;
030 LOTS 7;
030 E2,E2W2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the as mapped in the Worland Field Office GIS database;; (3) protecting Greater sage-grouse winter habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-060 981.72 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 001 S2S2
002 LOTS 5-8;
002 S2;
003 LOTS 5-8;
003 S2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1

Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND Partial DEFERRAL of WY-1108-060 per Lands w/Wilderness Characteristics Screen. The legal description listed above for parcel WY-1108-060 is for the area that is available for lease. The remainder of the legal description from the original parcel is recommended for deferral due to sage grouse core screen.

WY-1108-061 1967.950 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 007 LOTS 5-8;
007 E2;
007 TR 37A,37B,37C,37D,37E;
007 TR 37F,37G,37H;
008 ALL;
018 LOTS 5-8;
018 E2;
018 TR 37I,37J,37K,37L,37M;
018 TR 37N,37O,37P;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-062 1920.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 010 ALL;
011 ALL;
012 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
TLS (1) Nov 15 to Apr 30; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse winter habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-063 2240.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 017 ALL;
020 SE;
021 N2;
025 S2N2,S2;
026 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1

Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-064 1880.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 028 ALL;
032 W2NE,SENE,NW,S2;
033 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.

CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-065 1280.000 Acres
T.0440N, R.0910W, 06th PM, WY
Sec. 034 ALL;
035 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-066 1228.230 Acres
T.0420N, R.0920W, 06th PM, WY
Sec. 005 LOTS 1-4;
005 S2N2,S2;
006 LOTS 1-3,8-11;
006 S2NE,SENW,E2SW,SE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3

Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-067 1797.180 Acres
T.0430N, R.0920W, 06th PM, WY
Sec. 005 LOTS 7-16;
005 S2N2;
006 LOTS 17-20;
007 LOTS 5-8;
007 E2,E2W2;
008 LOTS 1,2;
008 SENE,W2E2,W2,NESE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.

CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-068 1319.810 Acres
T.0430N, R.0920W, 06th PM, WY
Sec. 031 LOTS 5-11;
031 NE,E2NW,NESW,N2SE;
032 LOTS 1-6;
032 TR 61;
033 W2NE,SENE,NW,N2SW,NWSE;
033 TR 61;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped in the Worland Field Office GIS database;; (3) protecting Greater sage-grouse winter habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-069 2270.740 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 003 LOTS 5-8;
003 S2N2,S2;
004 LOTS 5-8;
004 S2N2,S2;
005 LOTS 5-8;
005 S2N2,S2;
006 LOTS 8-14;

006 S2NE,SENW,E2SW,SE;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-069 per IM WY-2010-013

WY-1108-070 2555.040 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 007 LOTS 5-8;
007 E2,E2W2;
008 ALL;
020 ALL;
021 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-070 per IM WY-2010-013

WY-1108-071 2480.000 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 009 E2,NW,W2SW;
010 ALL;
011 ALL;
012 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

RECOMMEND DEFERRAL of WY-1108-071 per IM WY-2010-013

WY-1108-072 2513.540 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 013 N2,SW,W2SE,SESE;
017 ALL;
018 LOTS 5-8;
018 E2,E2W2;
019 LOTS 5-8;
019 E2,E2W2;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-072 per IM WY-2010-013

WY-1108-073 2240.000 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 022 ALL;
023 ALL;
025 S2;
026 SWNE,NW,S2;
035 N2NE,NENW;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2

Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-073 per IM WY-2010-013

WY-1108-074 1920.000 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 027 ALL;
028 ALL;
033 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-074 per IM WY-2010-013

WY-1108-075 1991.64 Acres
T.0440N, R.0920W, 06th PM, WY
Sec. 029 SW;
030 LOTS 5-8;
030 S2NE, SE,E2W2;
031 LOTS 5-8;
031 E2,E2W2;
032 ALL;
Washakie County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1

Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND Partial DEFERRAL of WY-1108-075 per IM WY-2010-013. The legal description listed above for parcel WY-1108-075 is for the area that is available for lease. The remainder of the legal description from the original parcel is recommended for deferral due to sage grouse core screen.

WY-1108-076 1599.640 Acres
T.0430N, R.0930W, 06th PM, WY
Sec. 001 LOTS 1,2;
001 SWNE,SW,W2SE,SESE;
001 SENE (INCL THAT PART OF
001 TRACT 37E LYING IN THE
001 SENE)
001 NESE (INCL THAT PART OF
001 TRACT 37E LYING IN THE
001 NESE);
003 SWSW;
004 LOTS 3,4;
004 S2NW,SW,S2SE,NESE;
005 LOTS 1-4;
005 S2N2,S2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.

TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-077 2560.000 Acres
T.0430N, R.0930W, 06th PM, WY
Sec. 009 ALL;
010 ALL;
011 ALL;
012 ALL;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-078 1939.380 Acres
T.0440N, R.0930W, 06th PM, WY
Sec. 001 LOTS 1-7;
001 SWNE,S2NW,SW,W2SE;

002 LOTS 1-4;
002 S2N2,S2;
012 LOTS 1-4;
012 W2E2,W2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-074 per IM WY-2010-013

WY-1108-079 560.0 Acres
T.0440N, R.0930W, 06th PM, WY
Sec. 015 NE, SW, SE, S2NW;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
CSU (1) Surface occupancy or use within 1/4 mile of a Greater sage-grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting Greater sage-grouse breeding habitat.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-079 per IM WY-2010-013

RECOMMEND Partial DEFERRAL of WY-1108-079 per Lands w/Wilderness Characteristics Screen. The legal description listed above for parcel WY-1108-079 is for the area that is available for lease. The remainder of the legal description from the original parcel is recommended for deferral due to sage grouse core screen.

WY-1108-080 1875.810 Acres
T.0440N, R.0930W, 06th PM, WY
Sec. 026 N2;
027 ALL;
028 N2;
031 LOTS 4;
031 SESW;
032 SESW,S2SE;
034 N2,N2SE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-082 240.14 Acres
T.0440N, R.0940W, 06th PM, WY
Sec. 001 LOT 3;
001 SENW,E2SW,W2SE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.

CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND Partial DEFERRAL of WY-1108-082 per IM WY-2010-013. The legal description listed above for parcel WY-1108-082 is for the area that is available for lease. The remainder of the legal description from the original parcel is recommended for deferral due to sage grouse core screen.

WY-1108-083 2280.000 Acres
T.0440N, R.0940W, 06th PM, WY
Sec. 013 ALL;
014 NENE,S2N2,S2;
023 NW,SE;
024 NENE;
025 ALL;
026 N2SE,SESE;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Worland Field Office GIS database; (3) protecting Class I and/or Class II Visual Resource Management Areas.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-084 624.600 Acres
T.0430N, R.0950W, 06th PM, WY
Sec. 006 LOTS 1-4;
006 E2,E2W2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation

NSO (1) Entire Lease; (2) protecting Meeteetse Draw Rock Art Area.
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-085 190.220 Acres
T.0450N, R.0950W, 06th PM, WY
Sec. 025 LOTS 2,3,6,7;
025 LOT 1 (EXCL 12.40 AC;
025 LYING WITHIN RR ROW;
025 WYW0119607);
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-086 1261.480 Acres
T.0450N, R.0950W, 06th PM, WY
Sec. 034 LOTS 13-16;
035 LOTS 1-2, 6-8, 9-11, 13-16;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
RECOMMEND Partial DEFERRAL of WY-1108-086 per Lands w/Wilderness Characteristics Screen. The legal description listed above for parcel WY-1108-086 is for the area that is available for lease. The remainder of the legal description from the original parcel is recommended for deferral due to sage grouse core screen.

WY-1108-087 1120.000 Acres
T.0430N, R.0960W, 06th PM, WY
Sec. 001 ALL;
002 E2,SENW,NESW,S2SW;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Mar 15 to Jul 15; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Greater sage-grouse.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.
NSO (1) T.0430N, R.0960W, 06th PM, WY Sec. 001 N2; (2) protecting Meeteetse Draw Rock Art Area.

WY-1108-088 311.580 Acres
T.0440N, R.0960W, 06th PM, WY
Sec. 003 LOTS 3-4;
003 S2NW,SW;
Hot Springs County
Worland FO

Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2)as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-089 1321.230 Acres
T.0440N, R.0970W, 06th PM, WY
Sec. 001 LOTS 3-7;
001 SWNE,W2SE;
002 S2S2;
003 LOTS 1-4;
003 S2N2,SW,NESE,S2SE;
010 N2;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

WY-1108-090 1923.920 Acres
T.0440N, R.0970W, 06th PM, WY
Sec. 011 ALL;
013 LOTS 1-4;
013 W2E2,W2;
014 ALL;
Hot Springs County
Worland FO
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2

Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Worland Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Worland Field Office GIS database; (3) protecting big game on crucial winter range.
CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Worland Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped in the Worland Field Office GIS database; (3) protecting paleontological values.

Cody Field Office Reviewed and Modified Parcel List

WY-1108-091 790.160 Acres
T.0540N, R.0970W, 06th PM, WY
Sec. 005 LOTS 1-4;
005 S2N2,S2;
006 LOTS 9;
006 SENE,E2SE;
Big Horn County
Cody FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Apr 10 to Jul 10; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Long Billed curlew and/or Mountain plover.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting significant Bighorn Basin paleontological resources.

CSU (1) The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation; (2) entire lease; (3) protecting Species listed under the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq.

WY-1108-092 90.000 Acres
T.0550N, R.0970W, 06th PM, WY
Sec. 029 W2W2NENW,W2NW;
Big Horn County
Cody FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Feb 1 to Jul 31; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Raptors.
TLS (1) Apr 10 to Jul 10; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Long Billed curlew and/or Mountain plover.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting significant Bighorn Basin paleontological resources.

WY-1108-093 399.240 Acres
T.0540N, R.0980W, 06th PM, WY
Sec. 002 LOTS 1-4;
002 S2N2,N2SE;
Park County
Cody FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation

TLS (1) Apr 10 to Jul 10; (2) as mapped on the Cody Field Office GIS database; (3) protecting nesting Long Billed curlew and/or Mountain plover.
CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of the trail, whichever is closer, may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting cultural and scenic values of the Bridger Trail.
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Cody Field Office GIS database; (3) protecting significant Bighorn Basin paleontological resources.
CSU (1) The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation; (2) entire lease; (3) protecting Species listed under the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq.

Lander Field Office Reviewed and Modified Parcel List

WY-1108-081 120.000 Acres
T.0380N, R.0940W, 06th PM, WY
Sec. 029 N2NW,SENW;
Fremont County
Lander FO
BUREAU OF RECLAMATION
Formerly Lease No.
Stipulations:
Lease Notice No. 1
Lease Notice No. 2
Lease Notice No. 3
Special Lease Stipulation
TLS (1) Nov 15 to Apr 30; (2) as mapped on the Lander Field Office GIS database; (3) protecting big game on crucial winter range.

CSU (1) The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting Artemisia porteri (Porter's sagebrush); Cryptantha subcapitata (Owl creek miner's candle); Rorippa calycina (Persistent sepal yellowcress); Cynomys leucurus (White-tailed prairie dog); Charadrius montanus (Moutain plover).
CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting paleontological values.
RECOMMEND DEFERRAL of WY-1108-081 for protection of municipal water.

Multiple Use Lands with Wilderness Characteristics Screen

Sec. 603 (43 USC 1782). The Wilderness Act states: "A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

Lease Parcel	More than 5000 acres of roadless land	Imprint of man's work substantially unnoticeable	Outstanding opportunity for solitude or primitive recreation	Contains natural features of scientific, educational, scenic, or historical value	In Citizen Proposed Wilderness Area
	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no) (If yes but dropped during RMP process, state why)
Nominated Parcels – Worland Field Office					
WY-1108-056	no	no	no	no	no
WY-1108-057	no	no	no	no	no
WY-1108-058	no	no	no	no	no
WY-1108-059	no	no	no	no	no
WY-1108-060 T44N, R91W, Sec. 001 LOTS 5–8; Sec. 001 N2S2 **Deferred**	Yes (BLM acres-34487) (CPW acres-21000)	Yes	Yes	Yes (Scenic, fossils, historical values)	Yes
WY-1108-060 Sec. 001 S2S2 Sec. 002 LOTS 5-8; Sec. 002 S2; Sec. 003 LOTS 5-8; Sec 003 S2;	no	no	no	no	no
WY-1108-061	no	no	no	no	no

WY-1108-062	no	no	no	no	no
WY-1108-063	no	no	no	no	no
WY-1108-064	no	no	no	no	no
WY-1108-065	no	no	no	no	no
WY-1108-066	no	no	no	no	no
WY-1108-067	no	no	no	no	no
WY-1108-068	no	no	no	no	no
WY-1108-069	no	no	no	no	no
WY-1108-070	no	no	no	no	no
WY-1108-071	no	no	no	no	no
WY-1108-072	no	no	no	no	no
WY-1108-073	no	no	no	no	no
WY-1108-074	no	no	no	no	no
WY-1108-075	no	no	no	no	no
WY-1108-076	no	no	no	no	no
WY-1108-077	no	no	no	no	no
WY-1108-078	no	no	no	no	no
WY-1108-079 T44N, R93W, Sec. 005 LOTS 1–4 Sec. 005 S2N2, S2 Sec. 009 LOTS 1–4; Sec. 009 N2N2, S2 Sec. 15, N2NW **Deferred**	Yes (8,771 acres)	Yes	Outstanding solitude – No Primitive Rec – Yes	No	No
WY-1108-079 T44N, R93W, Sec. 015, E2, SW, S2NW	no	no	no	no	no

WY-1108-080	no	no	no	no	no
WY-1108-082	no	no	no	no	no
WY-1108-083	no	no	no	no	no
WY-1108-084	no	no	no	no	no
WY-1108-085	no	no	no	no	no
WY-1108-086 T45N, R95W, Sec. 34, Lots 1-12; Sec. 35, Lots 3-5, 12 **Deferred**	Yes (15,688 acres)	Yes	Yes	Yes (Scenic, Unique topo)	No
WY-1108-086 T45N, R95W, Sec. 034 LOTS 13–16 Sec. 035 LOTS 1– 2, 6–8, 11–9, 13–16	no	no	no	no	no
WY-1108-087	no	no	no	no	no
WY-1108-088	no	no	no	no	no
WY-1108-089	no	no	no	no	no
WY-1108-090	no	no	no	no	no
Nominated Parcels – Cody Field Office					
WY-1108-091	no	no	no	no	no
WY-1108-092	no	no	no	no	no
WY-1108-093	no	no	no	no	no
Nominated Parcels – Lander Field Office					
WY-1108-081	no	no	no	no	no

Note

1 "The word 'roadless' refers to the absence of roads which have been improved and maintained by mechanical means to ensure relatively regular and continuous use. A 'way' maintained solely by the passage of vehicles does not constitute a road." 2 Examples of manmade features that may be considered substantially unnoticeable in certain cases are: trails, trail signs, bridges, fire towers, fire breaks, fire presuppression facilities, pit toilets, fisheries enhancement facilities, fire rings, hitching posts, snow gauges, water quantity and quality measuring devices, research monitoring markers and devices, radio repeater sites, air quality monitoring devices, fencing, spring developments, overgrown and barely visible two-track ways, and small reservoirs.

Sage Grouse Screen

Sage Grouse Screen for Oil & Gas Lease Parcels – Worland FO						
Parcel #	Within Core Area (v. 3) Yes/No	Habitat Yes/No	11 sq. mi Manageable Fed. Land Yes/No	Drainage Yes/No	Defer Parcel Yes/No	Lease w/Lease Notice #3 Yes/No
WY-1108-056	Yes	Yes	Yes	No	Yes	No
WY-1108-057	Yes	Yes	No	\	No	Yes
WY-1108-058	Yes	Yes	No	\	No	Yes
WY-1108-059	Partial	Yes	No	\	No	Yes
WY-1108-060	Yes	Yes	No	\	No	Yes
WY-1108-061	Yes	Yes	No	\	No	Yes
WY-1108-062	Yes	Yes	No	\	No	Yes
WY-1108-063	Yes	Yes	No	\	No	Yes
WY-1108-064	Yes	Yes	No	\	No	Yes
WY-1108-065	Yes	Yes	No	\	No	Yes
WY-1108-066	Partial	Yes	No	\	No	Yes
WY-1108-067	No	\	\	\	\	\
WY-1108-068	No	\	\	\	\	\
WY-1108-069	Yes	Yes	Yes	No	Yes	No
WY-1108-070	Yes	Yes	Yes	No	Yes	No
WY-1108-071	Yes	Yes	Yes	No	Yes	No
WY-1108-072	Yes	Yes	Yes	No	Yes	No
WY-1108-073	Yes	Yes	Yes	No	Yes	No
WY-1108-074	Yes	Yes	Yes	No	Yes	No
WY-1108-075	Partial	Yes	Yes	No	Yes-Partial	Partial Deferral
WY-1108-076	No	\	\	\	\	\
WY-1108-077	No	\	\	\	\	\
WY-1108-078	Yes	Yes	Yes	No	Yes	No
WY-1108-079	Yes	Yes	Yes	No	Yes	No
WY-1108-080	No	\	\	\	\	\
WY-1108-082	Partial	Yes	Yes	No	Yes-Partial	Partial Deferral
WY-1108-083	No	\	\	\	\	\
WY-1108-084	No	\	\	\	\	\
WY-1108-085	No	\	\	\	\	\
WY-1108-086	No	\	\	\	\	\

WY-1108-087	No	\	\	\	\	\
WY-1108-088	No	\	\	\	\	\
WY-1108-089	No	\	\	\	\	\
WY-1108-090	No	\	\	\	\	\
Sage Grouse Screen for Oil & Gas Lease Parcels – Cody FO						
WY-1108-091	No	\	\	\	\	\
WY-1108-092	No	\	\	\	\	\
WY-1108-093	No	\	\	\	\	\
Sage Grouse Screen for Oil & Gas Lease Parcels – Lander FO						
WY-1108-081	No	\	\	\	\	\