
PROPOSED CASPER
RESOURCE MANAGEMENT PLAN AND
FINAL ENVIRONMENTAL IMPACT STATEMENT

GLOSSARY

Glossary

Areas Administratively Unavailable to Leasing: BLM H-1601-1 - Land Use Planning, Appendix C.4 uses the term areas closed to oil and gas leasing. Areas administratively unavailable or closed to oil and gas leasing are areas where it has been determined that other land uses or resource values cannot be adequately protected with even the most restrictive oil and gas leasing stipulations; appropriate protection can be ensured only by making the areas administratively unavailable to oil and gas leasing for the life of the plan. Lands currently under lease would remain leased for the life of the leases. After expiration of these leases, no lands would be available for lease.

Allotment: An area of land where one or more livestock operators graze their livestock. Allotments are Bureau of Land Management (BLM) lands, but may also include other federally managed, state-owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment. Allotments are classified by the following:

Category I – Improve Existing Resource Conditions

Category M – Maintain Existing Resource Conditions

Category C – Custodial Management.

Analysis Area: Any lands, regardless of jurisdiction, for which the BLM synthesizes, analyzes, and interprets data for information that relates to planning for BLM-administered lands.

Animal Unit Month (AUM): A standardized measurement of the amount of forage necessary for the sustenance of one cow unit or its equivalent for 1 month (approximately 800 pounds of forage).

Big Game Crucial Winter Range: Winter habitat on which a wildlife species depends for survival. Because of severe weather conditions or other limiting factors, no alternative habitat would be available.

Borrow Material: A term used in conjunction with construction. The term refers to unprocessed material excavated from a borrow pit for use as fill at another location.

Carbon Dioxide Flood: A carbon dioxide flood is an enhanced oil recovery technique that injects fluid into the reservoir. When carbon dioxide is injected, it mixes with the oil and the two compounds dissolve into one another. The injected CO₂ acts as a solvent to overcome forces that trap oil in tiny rock pores and helps sweep the immobile oil left behind after the effectiveness of water injection decreases, resulting in increased oil production (EnCana 2005).

Class I Wells: Injection wells that are

- (1) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within ¼ mile of the well bore, an underground source of drinking water.
- (2) Other industrial and municipal disposal wells that inject fluid beneath the lowermost formation containing, within ¼ mile of the well bore, an underground source of drinking water.
- (3) Radioactive waste disposal wells that inject fluid below the lowermost formation containing an underground source of drinking water within ¼ mile of the well bore.

Class II Wells: Injection wells

- (1) That are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, and may be commingled with wastewaters from gas plants, which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.
- (2) For enhanced recovery of oil or natural gas.
- (3) For storage of hydrocarbons that are liquid at standard temperature and pressure.

Closed: Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

Commodity: An economic good, such as a product of agriculture or mining.

Comprehensive Weed Management Plan: A plan for controlling invasive plant species that incorporates integrated weed management techniques and accounts for pertinent considerations, such as management actions and allocations affecting weeds.

Controlled Surface Use (CSU): 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. Identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the no surface occupancy or timing limitation stipulations.

Cultural Resource Inventory Levels: A three-tiered process for discovering, recording, and evaluating cultural resources.

- (a) Class I - A review of existing literature and oral informant data combined with an analysis of a specific geographic region (e.g., an area of potential effect, drainage basin, resource area, etc.).
- (b) Class II - A sampling survey usually aimed at developing and testing a predictive model of cultural resource distribution.
- (c) Class III - An on-the-ground survey to discover, record, and evaluate cultural resources within a specific geographic area (e.g., usually an area of potential effect for a proposed undertaking).
- (d) dB (decibel): A unit of measurement of the loudness or strength of a signal. One decibel is considered the smallest difference in sound level that the human ear can discern. Decibels are a relative measurement derived from two signal levels: a reference input level and an observed output level. A decibel is the logarithm of the ratio of the two levels. One Bel is when the output signal is 10x that of the input and one decibel is 1/10th of a Bel.

Designated Roads and Trails: Specific roads and trails on which some type of motorized vehicle use is allowed either seasonally or year-long.

Desired Plant Community (DPC): Of the several plant communities that may occupy a site, the DPC is the community that has been identified through a management plan to best meet the plan's objectives for the site. At a minimum, it must protect the site.

Ecological Site: A kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in that the site has the ability to produce distinctive kinds and amounts of vegetation and to respond to management. Ecological sites are defined and described with information about soil, species composition, and annual production.

Ephemeral Stream: A stream that flows only in direct response to precipitation, and whose channel is at all times above the water table. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "ephemeral" be arbitrarily restricted to streams that do not flow continuously for at least 30 days (Prichard et al. 1998). Ephemeral streams support riparian areas when streamside vegetation reflects the presence of permanent subsurface water.

Exceedance: An event in which measurements of ambient air quality are above the national ambient air quality standard (NAAQS) or Wyoming Department of Environmental Quality (DEQ) standard set for a particular pollutant. For example, an annual average nitrogen dioxide value of 110 $\mu\text{g}/\text{m}^3$ is an exceedance of both the NAAQS and Wyoming DEQ annual average standard for nitrogen dioxide of 100 $\mu\text{g}/\text{m}^3$.

Exclusion Areas: Areas with sensitive resource values where rights-of-way and 302 permits, leases, and easements would not be authorized.

Extensive Recreation Management Areas (ERMA): These are areas where dispersed recreation is encouraged and where visitors have a freedom of recreational choice with minimal regulatory constraint.

Fire Management Plan: Identifies appropriate strategies to achieve resource objectives. Identifies fire policy, objectives, and prescribed actions; may include maps, charts, tables, and statistical data.

Fire Regime Condition Class: A classification of the amount of departure from the natural fire regime. The departure results in changes to one or more of the following ecological components: vegetation characteristics (e.g., species composition, structural stages, stand age, canopy closure, and mosaic pattern), fuel composition, fire frequency, severity, and pattern, and other associated disturbance (e.g., insect and disease mortality, grazing, and drought). The three condition classes are listed below:

(a) **Condition Class 1**

- The historic disturbance regime is largely intact and functioning (e.g., has not missed a fire return interval)
- Potential intensity and severity of fire within historic range
- Effects of disease and insects within historic range
- Hydrologic functions within normal historic range
- Vegetation composition and structure resilient to disturbances
- Nonnative species currently not present or to a limited extent
- Low risk of loss for key ecosystem components.

(b) **Condition Class 2**

- Moderate alterations to historic disturbance regime evident (e.g., missed one or more fire return intervals)
- Effects of disease and insects pose an increased risk of loss of key community components
- Riparian areas and associated hydrologic function show measurable signs of adverse departure from historic conditions
- Vegetation composition and structure shifted toward conditions less resilient to disturbances
- Populations of nonnative species may have increased, increasing the risk of further increases following disturbance.

(c) Condition Class 3

- Historic disturbance regime significantly altered; historic disturbance processes and impacts may be precluded (e.g., missed several fire return intervals)
- Effects of disturbance (fire, insects, and disease) may cause significant or complete loss of key community components
- Hydrologic functions may be adversely altered; high potential for increased sedimentation and reduced streamflows
- Invasive, nonnative species may be common and in some cases the dominant species on the landscape; disturbance will likely increase both the dominance and geographic extent of these invasive species
- Highly altered vegetation composition and structure predisposes community to disturbance events outside the range of historic availability; disturbance may have effects not observed or measured before.

Fire Return Interval: The number of years between two successive fire events at a specific site or area.

Flaring/Venting: The controlled burning (flare) or release (vent) of natural gas that cannot be processed for sale or use because of technical or economic reasons.

Floodplain Connectivity: Maintenance of lateral, longitudinal, and vertical pathways for biological and hydrological processes in the floodplain. Examples of failures to maintain connectivity could include culverts or levees that restrict flow in the floodplain and that focus overbank flow into the channel.

Flushing Livestock: Flushing livestock is the holding of livestock in an invasive, nonnative plant species (INPS) seed-free area where they are fed an INPS seed-free ration for 72 hours, thus flushing INPS seed from the animals' digestive systems.

Foreground-Middle Ground Zone: An area that can be seen from a travel route for a distance of 3 miles (foreground) to 5 miles (middle ground) where management activities might be viewed. A distance from 5 to 15 miles is called the *Background Zone* and the area beyond 15 miles is called the *Seldom-Seen Zone*.

Geologic Resources: Resources associated with the scientific study of the Earth, including its composition, structure, physical properties, and history. Geologic resources commonly include the study of minerals (**mineralogy**) and rocks (**petrology**); the structure of the Earth (**structural geology**) and volcanic phenomena (**volcanology**); and landforms and the processes that produce them (**geomorphology** and **glaciology**).

Goal: A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established timeframes for achievement.

Guzzler: A water development for wildlife.

HABS/HAER: The Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) is an integral component of the federal government's commitment to historic preservation. The program documents important architectural, engineering and industrial sites throughout the United States and its territories. A complete set of HABS/HAER documentation, consisting of measured drawings, large-format photographs, and written history plays a key role in accomplishing the mission of creating an archive of American architecture and engineering and in better understanding what historic resources tell us about America's diverse ethnic and cultural heritage. To insure that such

evidence is not lost to future generations, the HABS/HAER Collections are archived at the Library of Congress, where they are made available to the public.

Heavy Equipment Use: This phrase is used in fire management and is relative to limiting fire suppression tactics. In this context it refers to not using dozers, skidders, or graders in areas where important resource values are in need of protection. Fire engines and water tenders used during suppression activities would be allowed.

Held by Production: Leases that become productive and do not terminate until all wells on the lease have ceased production.

Integrated Weed Management: The use of all appropriate weed control measures, including fire, as well as mechanical, chemical, biological, and cultural techniques, in an organized and coordinated manner on a site-specific basis.

Intermittent Stream: A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "intermittent" be arbitrarily restricted to streams that flow continuously for periods of at least 30 days (Prichard et al. 1998).

Impact Analysis for Planning (IMPLAN 2000) Model: IMPLAN is a regional economic model that provides a mathematical accounting of the flow of money, goods, and services through a region's economy. The model provides estimates of how a specific economic activity translates into jobs and income for the region. It includes the "ripple effect" (also called the "multiplier effect") of changes in economic sectors that may not be directly impacted by management actions, but are linked to industries that are directly impacted. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly affected) and induced impacts (for changes in household spending as household income increases or decreases due to the changes in production).

Land Tenure: To improve the manageability of the Bureau of Land Management (BLM) lands and improve their usefulness to the public, the BLM has numerous authorities for "repositioning" lands into a more consolidated pattern, disposing of lands, and entering into cooperative management agreements. These land-pattern improvements are completed primarily through the use of land exchanges, but also through land sales, jurisdictional transfers to other agencies, and through the use of cooperative management agreements and leases. These ownership or jurisdictional changes are referred as "Land Tenure Adjustments."

Leasable Minerals: Those minerals or materials subject to lease by the federal government under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium, and sodium minerals; oil and gas, as well as geothermal resources.

Locatable Minerals: Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of metallic minerals such as gold, silver, and other uncommon materials not subject to lease or sale.

Mineral Materials (Salables): Materials such as common varieties of sand, stone, gravel, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws, but can be acquired under the Mineral Materials Act of 1947, as amended.

Mineral Withdrawal: A formal order that withholds federal lands and minerals from entry under the Mining Law of 1872, as amended, and closes the area to mineral location (i.e., staking mining claims) and development.

Mitigation:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

Multiple Use Reservoir: A human-created lake or pond with a combination of balanced uses, including, but not limited to, recreation, livestock watering, watershed health, and wildlife and fish.

Native Species Status: Native Species Status (NSS) refers to the population status of species native to the area in which their habitats occur. The NSSs are divided into the following categories:

NSS1 Native Species Status 1

- Populations are greatly restricted or declining, extirpation appears possible; or ongoing significant loss of habitat.

NSS2 Native Species Status 2

- Populations are declining, extirpation appears possible; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance
OR
- Populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; ongoing significant loss of habitat.

NSS3 Native Species Status 3

- Populations are greatly restricted or declining, extirpation appears possible; habitat is not restricted, vulnerable, but no loss; species is not sensitive to human disturbance
OR
- Populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; habitat is restricted or vulnerable, but no recent or ongoing significant loss
species may be sensitive to human disturbance.
OR
- Species is widely distributed; population status or trends are unknown, but are suspected to be stable; ongoing significant loss of habitat.

NSS4 Native Species Status 4

- Populations are greatly restricted or declining, extirpation appears possible; habitat is stable and not restricted
OR

- Populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; habitat is not restricted, vulnerable, but no loss; species is not sensitive to human disturbance
OR
- Species is widely distributed, population status or trends are unknown, but are suspected to be stable; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance
OR
- Populations that are stable or increasing and not restricted in numbers and (or) distribution; ongoing significant loss of habitat.

Natural Fire Regime: The general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995).

Necessary Tasks (Clause): Work requiring the use of motor vehicles. Examples include using motor vehicles to repair range improvements, manage livestock, perform geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), and performing mining claim functions resulting in less than 5 acres of surface disturbance as described in 43 CFR 3809.

No Surface Occupancy (NSO): The term “no surface occupancy” (NSO) is used in two ways. It is used in one way to define a NSO area where no surface-disturbing activities of any nature or for any purpose would be allowed. For example, construction or the permanent or long-term placement of structures or other facilities for any purpose would be prohibited in an NSO area.

The other way the “no surface occupancy” term is used is as a stipulation or mitigation requirement for controlling or prohibiting selected land uses or activities that would conflict with other activities, uses, or values in a given area. When used in this way, the NSO stipulation or mitigation requirement is applied to prohibit one or more specific types of land and resource development activities or surface uses in an area, while other—perhaps even similar—types of activities or uses (for other purposes) would be allowed. For example, protecting important rock art relics from destruction may require closing the area to the staking of mining claims and surface mining, off-road vehicle travel, construction or long-term placement of structures or pipelines, powerlines, general purpose roads, and livestock grazing. Conversely, the construction of fences to protect the rock art from vandalism or from trampling or breakage by livestock, an access road or trail, and other visitor facilities to provide interpretation and opportunity for public enjoyment of the rock art would be allowed. Further, if there were interest in development of leasable minerals in the area, leases for oil and gas, coal, and so forth, could be issued with a “no surface occupancy” stipulation or mitigation requirement for the rock art site, which would still allow access to the leasable minerals from adjacent lands and underground.

The term “no surface occupancy” has no relationship or relevance to the presence of people in an area.

Occupied Lek: A lek that has been active during at least one strutting season within the last 10 years.

Objective: A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement.

Open: Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs.

Off-Highway Vehicle (OHV): Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies.

Off-Highway Vehicle (OHV) Management Designations: Designations apply to all off-road vehicles (ORVs) regardless of the purposes for which they are being used. Emergency vehicles are excluded. The ORV designation definitions have been developed in cooperation with representatives of the U.S. Forest Service, National Park Service, and the Bureau of Land Management (BLM) state and field office personnel. The BLM recognizes the differences between ORVs and over-snow vehicles in terms of use and impact. Therefore, travel by over-snow vehicles will be permitted off existing routes and in all open or limited areas (unless otherwise specifically limited or closed to over-snow vehicles) if they are operated in a responsible manner without damaging the vegetation or harming wildlife.

Closed: Vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted. This designation is used if closure to all vehicular use is necessary to protect resources, to ensure visitor safety, or to reduce conflicts.

Open: Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause, significant undue damage to or disturbance of the soil, wildlife, wildlife habitats, improvements, cultural or vegetative resources, or other authorized uses of the public lands. These areas are used for intensive OHV use where there are no compelling resource needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

Limited:

- (a) Vehicle travel is permitted only on roads and vehicle routes which were in existence prior to the date of designation in the *Federal Register*. Vehicle travel off of existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from existing vehicle routes is not allowed. Creation of new routes or extensions and (or) widening of existing routes are not allowed without prior written agency approval.
- (b) Vehicle travel is permitted only on roads and vehicle routes designated by the BLM. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations are posted as follows:
 1. Vehicle route is open to vehicular travel.
 2. Vehicle route is closed to vehicular travel.
- (c) Vehicle travel is limited by number or type of vehicle. Designations are posted as follows:
 1. Vehicle route limited to four-wheel drive vehicles only.
 2. Vehicle route limited to motorbikes only.
 3. Area is closed to over-snow vehicles.
- (d) Vehicle travel is limited to licensed or permitted use.
- (e) Vehicle travel is limited to time or season of use.
- (f) Where specialized restrictions are necessary to meet resource management objectives, other limitations also may be developed.

The BLM may place other limitations, as necessary, to protect other resources, particularly in areas that motorized OHV enthusiasts use intensely or where they participate in competitive events.

Overgrazing: Continued heavy grazing that exceeds the recovery capacity of the forage plants and creates deterioration of the grazing lands (Valentine 1990).

Perennial Stream: A stream that flows continuously. Perennial streams generally are associated with a water table in the localities through which they flow (Prichard et al. 1998).

Pest: With the exception of vascular plants classified as invasive nonnative plant species, a pest can be any biological life form that poses a threat to human or ecological health and welfare. For the purposes of this planning effort, an “animal pest” is any vertebrate or invertebrate animal subject to control by Animal and Plant Health Inspection Service (APHIS). APHIS is currently BLM’s authorized agent for controlling “animal pests.” For this reason, “animal pests” will be considered a subset of Pest.

Planning Area: A geographic area for which land use and resource management plans are developed and maintained.

Potential Natural Community (PNC): The biotic community that would become established if all successional sequences were completed without interference by humans under the present environmental conditions. Natural disturbances are inherent in development. PNCs can include naturalized nonnative species.

Prairie Dog “Complex”: Defined as a cluster of two or more prairie dog towns within 3 kilometers of each other (Clark and Stromberg 1987; Luce 2003), and bounded by either natural or artificial barriers (Whicker and Detling 1998) which effectively isolate one cluster of colonies from interacting/interchanging with another. Prairie dogs may commonly move among colonies of a cluster, and thereby foster reproductive/genetic viability, but exhibit little emigration/immigration between clusters. A cluster may include some currently unoccupied, though physically suitable (i.e., vegetation, soils, topography, etc), land immediately adjacent to occupied colonies that support other prairie dog-associated (ecosystem function), obligate or facultative species (e.g., swift fox, mountain plover, burrowing owl, etc.).

Prescribed Burning: Controlled application of fire to wildland fuels in either their natural or modified state under specified environmental conditions that allow the fire to be confined to a predetermined area and at the same time to produce the fire intensity and rate of spread required to attain planned resource management objectives.

Prescribed Fire: The introduction of fire to an area under regulated conditions for specific management purposes.

Priority Fish Species: Priority fish species are species considered to be sport fish and native species.

Probable Fossil Yield Classification: Geologic units in the planning area are classified according to the Probable Fossil Yield Classification, usually at the formation or member level, according to the probability of yielding resources of concern to land managers, primarily vertebrate fossils. The classification uses a ranking of 1 through 5, with Class 5 assigned to units with a high potential for fossils. Within the planning area, Class 4 and Class 5 geologic formations account for approximately 50 percent of the total acreage, including all ownerships. About 35 percent of public land in the planning area is underlain by Class 4 and Class 5 formations. The classifications are described as below.

Class 1. Igneous and metamorphic geologic units, or units with highly disturbed preservational environments that are not likely to contain recognizable fossil remains. Management concern is negligible for Class 1 resources and mitigation requirements are rare.

Class 2. Sedimentary geologic units that are not likely to contain vertebrate fossils or significant nonvertebrate fossils. Management concern is low for Class 2 resources and mitigation requirements are not likely.

Class 3. Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or units of unknown fossil potential. Management concern may extend across the entire range of management. Ground-disturbing activities require sufficient assessment to determine whether significant resources occur in the area of the proposed action.

Class 4. Class 4 units are Class 5 units with a lowered risk of human-caused adverse impacts or lowered risk of natural degradation. Ground-disturbing activities require assessment to determine whether significant resources occur in the area of the proposed action and whether those actions will impact the resource. Mitigation may include full monitoring of significant localities.

Class 5. Highly fossiliferous geologic units that regularly produce vertebrate fossils or significant nonvertebrate fossils and that are at risk of natural degradation or human-caused adverse impacts. Class 5 areas receive the highest level of management focus. Mitigation of ground-disturbing actions is required and may be intense. Areas of special interest may be designated and intensely managed.

Produced Water: Groundwater removed to facilitate the extraction of minerals, such as coal, oil, or gas.

Proper Grazing: Proper grazing is the practice of managing forage use by grazing animals at a sustainable level that maintains rangeland health. Proper grazing will maintain or increase plant cover, including residue, which acts to slow down or reduce runoff, increase water infiltration, and keep erosion and sedimentation at or above acceptable levels within the potential of ecological sites within a given geographic area (e.g., watershed, grazing allotment, etc.).

Rangeland: Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing. This includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

Rangeland Health: The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained.

Range Improvement Project: A structural improvement requiring placement or construction to facilitate management or control distribution and movement of grazing or browsing animals. Such improvements may include, but are not limited to, fences, wells, troughs, reservoirs, water catchments, pipelines, and cattleguards. The project also may include a practice or treatment which improves rangeland condition and or resource production for multiple use. Nonstructural types of projects may include, but are not limited to, seeding and plant control through chemical, mechanical, and biological means or prescribed burning.

Raptor: Bird of prey with sharp talons and a strongly curved beak, such as hawks, falcons, owls, vultures, and eagles.

Recreation Management Areas: Recreation management areas are units within a planning area guiding recreation management on public lands having similar recreation related issues and concerns. There are two types of recreation management areas, extensive and special.

Extensive Recreation Management Areas (ERMA): These are areas where dispersed recreation is encouraged and where visitors have a freedom of recreational choice with minimal regulatory constraint.

Special Recreation Management Areas (SRMA): These are areas where congressionally recognized recreation values exist or where significant public recreation issues or management concerns occur. Special or more intensive types of management are typically needed.

Restricted Disposal: Parcels identified for restricted disposal may be disposed of under the Recreation and Public Purposes Act, by exchange, may limit the disposal to a particular type of entity capable of preserving the resource values, or may include the use of covenants in the deed or land sale patent to ensure the resource values are protected.

Riparian/Wetland Functionality Classification:

Functional-At-Risk (FAR): Riparian/wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

Proper Functioning Condition (PFC): A riparian or wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to do the following:

- Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality
- Filter sediment, capture bedload, and aid floodplain development
- Improve floodwater retention and groundwater recharge
- Develop root masses that stabilize streambanks against cutting action
- Develop diverse ponding and channel characteristics to provide the habitats and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses
- Support greater biodiversity.

Nonfunctional: Riparian or wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, and so on, as listed above. The absence of certain physical attributes, such as a floodplain where one should be, are indicators of nonfunctioning conditions.

Unknown: Riparian or wetland areas that the Bureau of Land Management lacks sufficient information on to make any form of determination.

Rights-of-Way (ROW): A ROW grant is an authorization to use a specific piece of public land for a specific project, such as roads, pipelines, transmission lines, and communication sites. The grant authorizes rights and privileges for a specific use of the land for a specific period of time.

ROW Avoidance Areas: Areas where negative routing factors exist. ROWs either will not be granted in these areas, or—if granted—will be subject to stringent terms and conditions. In other words, ROWs would be *restricted* (but not necessarily prohibited) in these avoidance areas.

Saleable Minerals: Common variety of minerals on public lands, such as sand and gravel, used mainly for construction. Saleable minerals are disposed of by sales to the public or free-use permits to government agencies or nonprofit organizations.

Seasonal Ranges: The Wyoming Game and Fish Department has identified various ranges for big game species. These ranges are defined as follows:

Summer or Spring-Summer-Fall: A population or portion of a population of animals uses the documented habitats within this range annually from the end of previous winter to the onset of persistent winter conditions.

Severe Winter Relief: A documented survival range, which may or may not be considered a crucial range area as defined above. It is used to a great extent, but only in extremely severe winters. It may lack habitat characteristics that would make it attractive or capable of supporting major portions of the population during normal years, but is used by and allows at least a significant portion of the population to survive the occasional extremely severe winter.

Winter: A population or portion of a population of animals annually uses the documented suitable habitat sites within this range in substantial numbers during the winter period only.

Winter/Year-long: A population or a portion of a population of animals makes general use of the documented suitable habitat sites within this range on a year-round basis. During the winter months there is a significant influx of additional animals into the area from other seasonal ranges.

Year-long: A population or substantial portion of a population of animals makes general use of the suitable documented habitat sites within the range on a year-round basis. On occasion, animals may leave the area under severe conditions.

Parturition Areas: Documented birthing areas commonly used by females. They include calving areas, fawning areas, and lambing grounds. These areas may be used as nurseries by some big game species.

Section 106 of National Historic Preservation Act: “The head of any Federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state and the head of any federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking” (16 U.S.C. 47 df).

Sensitive Sites or Resources: Sensitive sites or resources refer to significant cultural resources that are or may be eligible for nomination to the National Register of Historic Places.

Sensitive Species: Species designated as sensitive by the Bureau of Land Management (BLM) State Director include species that are under status review, have small or declining populations, live in unique

habitats, or require special management. BLM Manual 6840 provides policy and guidance for special status species management. The BLM Wyoming Sensitive Species Policy and List are provided in a memorandum updated annually. Primary goals of the BLM Wyoming policy include maintaining vulnerable species and habitat components in functional BLM ecosystems and preventing a need for species listing under the Endangered Species Act.

Seral Stage: One of a series of plant communities that follows another in time on a specific ecological site.

Setting: Setting is the physical environment of a historic property and how the property evokes a sense of feeling and association with past events. Accordingly, setting refers to the **character** of the place in which the property played its historic role. It involves **how**, not just where, the property is situated and its relationship to surrounding features and open space. These features and their relationships should be considered not only within the exact boundaries of the property, but also between the property and its surroundings.

Special Recreation Management Areas (SRMA): These are areas where congressionally recognized recreation values exist or where significant public recreation issues or management concerns occur. Special or more intensive types of management are typically needed.

Special Status Species: Special status species are species proposed for listing, officially listed as threatened or endangered, or are candidates for listing as threatened or endangered under the provisions of the endangered species act; those listed by a state in a category such as threatened or endangered implying potential endangerment or extinction; and those designated by the State Director as sensitive (BLM 6840 Manual 2001).

Split-Estate: Surface land and mineral estate of a given area under different ownerships. Frequently, the surface will be privately owned and the minerals federally owned.

State-Listed Species: Species proposed for listing or listed by a state in a category implying, but not limited to, potential endangerment or extinction. Listing is either by legislation or regulation.

Surface-disturbing Activities (or Surface Disturbance): The physical disturbance and movement or removal of land surface and vegetation. These activities range from the very minimal to the maximum types of surface disturbance associated with such things as off-road vehicle travel or use of mechanized, rubber-tired, or tracked equipment and vehicles; some timber cutting and forest silvicultural practices; excavation and development activities associated with use of heavy equipment for road, pipeline, power line and other types of construction; blasting; strip, pit, and underground mining and related activities, including ancillary facility construction; oil and gas well drilling and field construction or development and related activities; range improvement project construction; and recreation site construction.

Surface Water Classes and Uses: The following water classes are a hierarchical categorization of waters according to existing and designated uses. Except for Class 1 waters, each classification is protected for its specified uses plus all the uses contained in each lower classification. Class 1 designations are based on value determinations rather than use support and are protected for all uses in existence at the time of or after designation. There are four major classes of surface water in Wyoming with various subcategories within each class (see “Wyoming Surface Water Classification List” for current listing).

- (a) Class 1, Outstanding Waters. Class 1 waters are those surface waters in which no further water quality degradation by point source discharges other than from dams will be allowed. Nonpoint sources of pollution shall be controlled through implementation of appropriate best management practices. Pursuant to Section 7 of these regulations, the water quality and physical and biological

integrity that existed on the water at the time of designation will be maintained and protected. In designating Class 1 waters, the Environmental Quality Council shall consider water quality, aesthetic, scenic, recreational, ecological, agricultural, botanical, zoological, municipal, industrial, historical, geological, cultural, archeological, fish and wildlife, the presence of substantial quantities of developable water, and other values of present and future benefit to the people.

- (b) Class 2, Fisheries and Drinking Water. Class 2 waters are waters, other than those designated as Class 1 that are known to support fish or drinking water supplies or where those uses are attainable. Class 2 waters may be perennial, intermittent, or ephemeral and are protected for the uses indicated in each subcategory listed below. Five subcategories of Class 2 waters exist.
- (c) Class 3, Aquatic Life Other than Fish. Class 3 waters are waters other than those designated as Class 1 that are intermittent, ephemeral, or isolated waters, and because of natural habitat conditions, do not support nor have the potential to support fish populations or spawning or certain perennial waters that lack the natural water quality to support fish (e.g., geothermal areas). Class 3 waters provide support for invertebrates, amphibians, or other flora and fauna that inhabit waters of the state at some stage of their life-cycles. Uses designated on Class 3 waters include aquatic life other than fish, recreation, wildlife, industry, agriculture, and scenic value. Generally, waters suitable for this classification have wetland characteristics; and such characteristics will be a primary indicator used in identifying Class 3 waters. There are four subcategories of Class 3 waters.
- (d) Class 4, Agriculture, Industry, Recreation, and Wildlife. Class 4 waters are waters other than those designated as Class 1 where it has been determined that aquatic life uses are not attainable pursuant to the provisions of Section 33 of these regulations. Uses designated on Class 4 waters include recreation, wildlife, industry, agriculture and scenic value. (Source: WDEQ, Wyoming Surface Water Quality Standards)

Vegetative Diversity: The variety of vegetative types in an area, including species, the genetic differences among species and populations, the communities and ecosystems in which vegetation types occur, and the structure and seral stage of these communities. Vegetative diversity includes rare as well as common vegetative types, and typically supports a diverse array of animal species and communities.

Viewshed: Viewshed is used in Visual Resource Management to describe "...landscape that can be seen under favorable atmospheric conditions from a viewpoint (key observation point) or along a transportation corridor" (BLM 1984).

Visual Resources: The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

Visual Resource Management (VRM) Classes:

Class I. The objective of this class is to maintain a landscape setting that appears unaltered by humans. It is applied to wilderness areas, some natural areas, wild portions of wild and scenic rivers, and other similar situations in which management activities are to be restricted.

Class II. The objective of this class is to design proposed alterations so as to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III. The objective of this class is to design proposed alterations so as to partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape; however, the changes should remain subordinate to the existing characteristic landscape.

Class IV. The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, changes should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape.

Rehabilitation Area. Change is needed or change may add acceptable visual variety to an area. This class applies to areas where the naturalistic character has been disturbed to a point at which rehabilitation is needed to bring it back into character with the surrounding landscape. This class would apply to areas identified in the scenic evaluation where the quality class has been reduced because of unacceptable cultural modification. The contrast is inharmonious with the characteristic landscape. It may also be applied to areas that have the potential for enhancement; i.e., add acceptable visual variety to an area or site. It should be considered an interim or short-term classification until one of the other VRM class objectives can be reached through rehabilitation or enhancement. The desired visual resource management class should be identified.

Wildfire: Any natural fire ignition occurring on wildland that neither meets management objectives nor occurs within a prescribed fire area, thus requiring a suppression response.

Wildland Industrial Interface: The area where industrial development meets or intermingles with undeveloped wildland.

Wildland Urban Interface (WUI): Healthy Forest Recreation Act 2003: defines wildland urban interface (WUI) (section 101) as an area within or adjacent to an at risk community that has been identified by a community in its wildfire protection plan or, for areas that do not have such a plan, an area extending; 1) ½ mile from the boundary of an at risk community, or 2) 1 ½ miles when other criteria are met. (e.g., a sustained steep slope or a geographic feature aiding in creating an effective fire break or is condition class III land, or 3) is adjacent to an evacuation route.

Wildlife-Disturbing Activity: BLM-authorized activities other than routine maintenance that may cause displacement of or excessive stress to wildlife during critical life stages. Wildlife-disturbing activities include human presence, noise, and activities using motorized vehicles or equipment.

Withdrawal: Removal or withholding of public lands, by statute or Secretarial order, from operation of some or all of the public land laws. A mineral withdrawal includes public lands potentially valuable for leasable minerals, precluding the disposal of the lands except with a mineral reservation clause, unless the lands are found not to contain a valuable deposit of minerals. A mineral withdrawal is the closing of an area to mineral location and development activities.

Yellowcake: Yellowcake is the product of the uranium extraction (milling) process. Early production methods resulted in a bright yellow compound, hence the name yellowcake. The material is a mixture of uranium oxides that can vary in proportion and color from yellow to orange to dark green (blackish), depending at which temperature the material was dried (level of hydration and impurities). Higher drying temperatures produce a darker, less soluble material. Yellowcake is commonly referred to as U_3O_8 and is

assayed as pounds U3O8 equivalent. This fine powder is packaged in drums and sent to a conversion plant that produces uranium hexafluoride as the next step in the manufacture of nuclear fuel.

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