



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
5353 Yellowstone Road, Suite 308A
Cheyenne, Wyoming 82009

JUL 20 2007

In Reply Refer To:
ES-61411/W.02/WY07FA0408

Memorandum

To: Robert Bennett, State Director, Bureau of Land Management, Cheyenne State Office, Cheyenne, Wyoming

From: Brian T. Kelly, Field Supervisor, U.S. Fish and Wildlife Service, Wyoming Field Office, Cheyenne, Wyoming *Patricia Deibert for*

Subject: Receipt and review of the White-tailed Prairie Dog Biological Evaluation

Thank you for the U.S. Bureau of Land Management's (Bureau or BLM) Statewide Programmatic Biological Evaluation for the White-tailed Prairie Dog (*Cynomys leucurus*) (BE) received May 25, 2007. In the BE, the Bureau described potential activities which may impact the white-tailed prairie dog and also describes proactive conservation measures to be undertaken by the Bureau in Wyoming to conserve this species. The white-tailed prairie dog is currently on the Bureau's list of Sensitive Species in Wyoming (BLM 2007).

Potential detrimental impacts to the white-tailed prairie dog from the implementation of the RMPs as identified by the Bureau include: (1) habitat loss, degradation, or fragmentation from development activities; (2) reduction of forage from inadvertent introduction of invasive species; (3) increased predation by raptors through the installation of structures potentially used as perches; (4) direct mortality through poisoning, and (5) increased mortality, harassment, or injury from increased vehicle use or improved access for recreational shooters (BLM 2007).

We have reviewed your BE for the white-tailed prairie dog and appreciate your efforts in providing a proactive analysis, subsequent determinations, and proactive conservation measures (Attachments 1 & 2). Your conservation measures should serve to better protect this species from further decline.

Attachments (2)

cc: BLM, Endangered Species Coordinator, State Office, Cheyenne, WY (J. Carroll)
FWS, Endangered Species, Lakewood, CO (B. Fahey)
WGFD, Statewide Habitat Protection Coordinator, Cheyenne, WY (V. Stelter)
WGFD, Non-Game Coordinator, Lander, WY (B. Oakleaf)

REFERENCE

U.S. Bureau of Land Management. 2007. Statewide Programmatic Biological Evaluation for the White-tailed Prairie Dog. Cheyenne Bureau of Land Management Office. 60 pp.

**ATTACHMENT 1 - U.S. BUREAU OF LAND MANAGEMENT PROGRAM ACTIVITY
DESCRIPTIONS IN WYOMING FROM THE STATEWIDE
PROGRAMMATIC WHITE-TAILED PRAIRIE DOG
BIOLOGICAL EVALUATION**

These program descriptions are summarized from the Statewide Biological Evaluation for the White-tailed Prairie Dog (2007) or other recent programmatic consultations as necessary. It is expected that the activities described here will be implemented in the Great Divide (Rawlins), Cody, Kemmerer, Lander, Pinedale, Green River (Rock Springs), Worland-Washakie, Worland-Grass Creek, and Platte River (Casper) RMP areas over the duration of the RMPs (10-15 years).

Programs which the U.S. Bureau of Land Management (BLM or Bureau) will implement within the Rawlins, Cody, Kemmerer, Lander, Pinedale, Rock Springs, Worland-Washakie, Worland-Grass Creek, and Casper RMP areas are: (1) Access, (2) Air Quality, (3) Areas of Critical Environmental Concern, (4) Cultural Resources Management, (5) Fire Management, (6) Forest Management, (7) Hazardous Materials Management, (8) Lands and Realty, (9) Livestock Grazing, (10) Geology and Minerals, (11) Off-highway Vehicles, (12) Paleontological Resources, (13) Recreation, (14) Riparian Areas, (15) Sensitive Plants, (16) Soils, (17) Surface Disturbance Restrictions, (18) Threatened, Endangered, and Candidate Species Protection, (19) Vegetation Resources, (20) Visual Resources, (21) Watershed and Water Resources, (22) Wild and Scenic Rivers, and (23) Wild Horse Management. Potential detrimental impacts to the white-tailed prairie dog from the implementation of the above-mentioned RMPs as identified by the Bureau include: (1) habitat loss, degradation, or fragmentation from development activities; (2) reduction of forage from inadvertent introduction of invasive species; (3) increased predation by raptors through the installation of structures potentially used as perches; (4) direct mortality through poisoning; and (5) increased mortality, harassment, or injury from increased vehicle use or improved access for recreational shooters (BLM 2007).

Access

The objective for access management is to provide suitable public access to Bureau-administered public lands. This may include acquiring new access where needed, maintaining and expanding existing access facilities, or abandoning and closing access where it is not compatible with resource values and objectives.

Access across private lands will be for easements, land exchanges, reciprocal rights-of-way, and other statutory authorities. Specific routes are pursued as needed through a variety of methods including, but not limited to, purchases of rights-of-way. Access acquisition needs (typically for roads) are most commonly identified for public access for recreational use, timber harvests, grazing, etc. This may be for hunting, sightseeing, rockhounding, or general exploring. Acquisition of access to public lands has been identified in locations that would provide the public with an opportunity to utilize resources that have previously been unavailable because the public lands had no public access. An increase in access could result in (1) an increase in human activity in an area that previously had little activity, or (2) development of roads, trails, parking areas and other facilities to enhance the public's use of the area. The construction of access roads, trails, parking areas, and other associated facilities would require the use of heavy equipment and machinery, as well as surface disturbance at the site. Where appropriate, land exchanges or cooperative agreements are considered to provide access needs.

Areas with high road densities may be evaluated to determine the need for specific road closures or rehabilitation. Specific mitigation measures and design requirements for roads are developed through environmental analyses as part of specific projects or activity planning. Access closure, abandonment, and acquisition are considered and established through activity planning and environmental analysis processes. Road or trail closure and abandonment are based on desired road or trail densities, demands for new roads, closure methods (e.g., abandonment and rehabilitation, closures by signing, temporary or seasonal closures), type of access needed, resource development or protection needs, and existing uses.

Air Quality

The objective of air quality management is to maintain or enhance air quality, protect sensitive natural resources and public health and safety, and minimize emissions that cause acid rain or degraded visibility. Typical air quality management includes dust control, weather monitoring, and air quality data monitoring. The air quality management program may evaluate or restrict surface development. The Bureau requires that operators cover conveyors at mine sites, restrict flaring of natural gas, limit emissions, and restrict spacing on projects.

Bureau-initiated actions or authorizations are planned in accordance with Wyoming and national air quality standards. This is accomplished through coordination with the Wyoming Department of Environmental Quality (WDEQ) and the U.S. Environmental Protection Agency (EPA). Laws controlling air pollutants in the United States include the Clean Air Act of 1970 and its amendments, and the 1999 Regional Haze Regulations. The concentrations of air contaminants in the planning area need to be within limits of Wyoming ambient air quality standards (WAAQS) and national ambient air quality standards (NAAQS). Both WAAQS and NAAQS are legally enforceable standards for particulate matter (PM₁₀), nitrogen dioxide (NO₂), ozone, sulfur dioxide (SO₂), and carbon monoxide. Air quality stations used to monitor particulates, if located in white-tailed prairie dog habitat, could cause disturbances through the building/construction of the station and associated access roads, maintenance and upkeep, and equipment reading and repair. No known monitoring stations are currently in white-tailed prairie dog habitat on Bureau-administered lands in Wyoming, although additional Federal and state funded stations are being placed in Wyoming annually.

In addition to NAAQS and WAAQS, major new sources of pollutants or modifications to sources must meet requirements of the New Source Performance Standards and Prevention of Significant Deterioration (PSD). The PSD increments measure PM₁₀, SO₂, and NO₂. The PSD program is used to measure air quality to ensure that areas with clean air do not significantly deteriorate while maintaining a margin for industrial growth.

Areas of Critical Environmental Concern

The objectives for special management areas, such as Areas of Critical Environmental Concern (ACECs), are to ensure continued public use and enjoyment of recreation activities while protecting and enhancing natural and cultural values. They offer opportunities for high-quality outdoor recreation. Other objectives include improving visitor services related to safety, information, and interpretation as well as developing and maintaining facilities. The designation of ACECs in an RMP is simply a designation, and does not automatically convey specific management or protections, although with designation, some resource management protections are spelled out and implemented. If access roads or other types of facilities are specifically

required, then these will be described within the appropriate activity section in this document. Generally, ACEC status is a beneficial impact on wildlife and plant species.

Under this program, the Bureau closes areas where accelerated erosion is occurring, applies restrictions on ground-disturbing activities, and implements restrictions on the use of heavy equipment. Recreational trails and improvements could be built as well as pursuing land exchanges. During ACEC management activities, the Bureau strives to protect petroglyphs, artifacts, and cultural deposits from weathering and vandalism. The Bureau evaluates noxious weed and grasshopper control measures. Significant sites and segments along Natural Historic Trails are generally designated as ACECs.

Cultural Resources

The objective of cultural resource management is to protect, preserve, interpret, and manage significant cultural resources for their informational, educational, recreational, and scientific values. Site-specific inventories for cultural resources would be required before the start of surface disturbance or if Bureau-administered lands were proposed for transfer out of Federal ownership.

The Bureau performs inventories as well as land management. During inventory activities, the Bureau inventories, categorizes, and preserves cultural resources, conducts field activities, performs excavations; maps and collects surface materials, researches records, and photographs sites and cultural resources. Inventory data collection is used for documentation and development of mitigation plans before other resource program surface disturbance. Inventory activities commonly entail the use of hand tools, power tools, or heavy machinery. These inventories are divided into Class I, Class II, and Class III. The Bureau normally completes cultural resource inventories in response to surface-disturbing projects. Survey intensity varies among inventories, which may involve two to seven individuals and trucks, and may last from one day to several weeks.

Cultural resource land management involves managing sites for scientific, public, and sociocultural use by developing interpretive sites and preparing interpretive materials. Use limiting activities include restricting certain land uses, closing certain areas to exploration and prohibiting some surface-disturbing activities. This program also allows the collection of certain invertebrate fossils. Archeological collections are authorized through a permit system. The cultural resource program may authorize installation of fencing to protect trail segments, stabilize deteriorating buildings, acquire access to sites when necessary, perform certain surface-disturbing activities, pursue land withdrawals, explore and develop locatable minerals, designate avoidance areas, pursue cooperative agreements, and identify and interpret historic trails. Cultural resource interpretive sites, such as historic trails or rock art sites, may be developed to provide public benefits such as scenic overlooks, signs, and walking trails.

Adverse effects on significant cultural resources are mitigated by avoiding surface disturbance in culturally-rich areas, as well as by managing sites and structures for their cultural importance. Surface disturbance is avoided near significant cultural and paleontological resource sites and within ¼ mile or the visual horizon of significant segments of historic trails and canals. Sites listed on, or eligible for, the National Register for Historic Places are protected and would be managed for their local and national significance in compliance with the National Historic

Preservation Act, the Archaeological Resources Protection Act, the American Indians Religious Freedom Act, and the Native American Graves Protection and Repatriation Act, as appropriate.

Fire

The objectives of fire management are to restore the natural role of fire in the ecosystem and to protect life, property, and resource values from wildfire. The two major activities involved with the Bureau's fire management are prescribed burning and wildfire suppression.

Prescribed fire objectives are to restore natural fire regimes and enhance rangeland habitats for livestock and wildlife. In the prescribed fire program, the Bureau authorizes fire plans, firebreaks, prescribed burns, and coordination with necessary parties on a case-by-case basis. Some prescribed fires are conducted to dispose of slash and residue from timber sales, to improve wildlife habitat and grazing potential, or to reduce hazardous fuel loads.

Wildfires threatening valuable resources, including commercial timber areas, developed recreation sites, and areas of wildland/urban interface, or fires with the potential to spread to private, state, or other Federal lands are actively suppressed. Fire suppression methods vary with the intensity of the wildfire and are conducted on an emergency basis. Fire lines are constructed to contain the wildfire. Water is withdrawn from nearby sources to suppress fires. Chemical fire suppression agents containing chemical dyes may be used, if needed. The use of aerial fire retardant is restricted near water resources. After a fire is extinguished, the Bureau may use rehabilitation techniques to restore a burned or suppressed area to its previous vegetative cover.

Activities authorized by this program include tree thinning, construction of roads and fire lines, manual and aerial application of fire-suppressing chemicals, and revegetation and mulching of stream banks for rehabilitation. These activities often employ the use of hand tools, off-road vehicles, and heavy equipment such as bulldozers.

Fire and suppression impacts are evaluated through the Burned Area Emergency Rehabilitation program on all burned areas. This process evaluates the potential for impacts on the ecosystems involved and proposes stabilization and rehabilitation actions.

Forest Resources

The objectives of forest management are to maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems and to provide a balance of natural resource benefits and uses, including opportunities for commercial forest production. The Bureau manages forests for multiple uses, such as recreation, livestock grazing, and wildlife habitat.

The program allows the treatment of diseased trees by spraying, cutting, and removal; herbicidal spraying of grasses and shrubs; and pre-commercial thinning, chaining, and shearing. Clearcuts, slash disposal, logging, helicopter logging, and skidder-type and cable yarding are allowed during timber harvest. Non-commercial timber harvest involves collection and cutting of firewood, Christmas trees, posts, poles, and wildlings. The Bureau ensures that site regeneration and stand replacement follow timber harvest. Forest management may include conducting surveys, obtaining easements, pursuing legal access, allowing road development, and installing drain culverts and water bars.

Timber harvesting occurs on commercial forestlands with slopes less than 45 percent. Forest products are sold by permit. Individual authorized clearcuts may not exceed 20 acres. Areas within 200 feet of surface water are prohibited from harvest. Slash is to be lopped and scattered, roller chopped, or burned. Regeneration areas are often fenced to prevent wildlife and livestock from damaging seedlings. Private and state land may be accessed for forest management purposes through acquisition of easements.

Currently, cottonwood and willow trees are not harvested by the Bureau in Wyoming. Non-commercial woodlands (e.g., riparian areas) are managed to optimize cover, enhance habitat for wildlife, and protect the soil and watershed values.

Hazardous Materials

The primary objective of hazardous materials management is to protect public and environmental health and safety on lands administered by the Bureau. During hazardous materials management activities, the Bureau seeks to comply with Federal and state laws to prevent waste contamination caused by Bureau-authorized actions, and to minimize Federal exposure to the liabilities associated with waste management on public lands.

Hazardous materials and waste management policies are integrated into all Bureau programs. Public lands contaminated with hazardous wastes are reported, secured, and cleaned according to Federal and state laws, regulations, and contingency plans. Warnings are issued to potentially affected communities and individuals if hazardous material is released on public land.

Lands and Realty

The objectives of the lands and realty management program are to support multiple-use management goals of the Bureau resource programs; respond to public requests for land use authorizations, sales, and exchanges; and acquire and designate rights-of-way access to serve administrative and public needs.

Public land tracts that are not critical to current management objectives will be disposed of through the realty management program. Non-federal lands may be acquired through exchange in areas with potential for recreation development or in areas containing important wildlife, cultural, scenic, natural, open space, or other resource values. Protective withdrawals may be established to protect and preserve important resource values, but require extensive mineral investigations.

During realty management activities, the Bureau authorizes occupancy of public lands for roads, power lines, pipelines, communication sites, and irrigation ditches by granting rights-of-way. Rights-of-way management actions occur in response to public requests for access, land authorizations, sales, and exchanges. These rights-of-way may be temporary or may extend two years or longer.

Under this program, the Bureau pursues cooperative agreements, develops recreation site facilities, considers offsite mitigation, minimizes access in wildlife habitat, fences revegetation

sites, blocks linear rights-of-way to vehicle use, considers temporary-use permits, considers new withdrawals, and leases acres for landfills.

Access management generally supports other resource management programs and is authorized under this program. The Bureau rehabilitates access roads that are no longer needed, proposes easement negotiations, pursues access across private lands, approves rights-of-way or easements, and exchanges land.

Cases are considered individually in mineral exchanges. Public lands can be considered for sale or disposal on a case-by-case basis when a definite need for the land is identified and the proposal meets the requirements of the Recreation and Public Purpose (R&PP) Act and local land use plans. Leasing public lands for landfills is allowed under the R&PP Act. The use of landfill is a common method of solid waste disposal.

All Bureau-administered public lands will be open to consideration for utility and transportation systems, but these systems will be located next to existing facilities whenever possible. Areas with important resource values will be avoided where possible when planning for placement and routes of new facilities. Effects will be intensively mitigated if it becomes necessary to place facilities within avoidance areas.

Livestock Grazing

The management objective of livestock grazing management is to maintain or improve forage production and range condition as a sustainable resource base for livestock grazing on the public lands while improving wildlife habitat and watershed condition.

Management actions on grazing allotments are prioritized by and classified into one of three management categories: maintain (M), improve (I), and custodial (C). Certain areas may be closed to livestock grazing because of conflicts with other resource uses including, but not limited to, re-harvesting timber sale areas, crucial wildlife or endangered species habitat, developed recreation sites, or education areas. Range management activities include using prescribed fire, vegetation manipulation projects, changing the composition of existing vegetation, controlling noxious weeds, using mechanical or biological vegetative treatments to improve forage production, using heavy equipment, and herbicidal spraying of sagebrush.

Fencing activities authorized by the livestock grazing management program may include fence construction and repair, designing and implementing grazing systems, and building livestock enclosures for important riparian habitat. Water management activities associated with range management may include the development of reservoirs, springs, pipelines, and wells, and providing access to these developments. Lease management activities include conducting monitoring studies, enhancing and improving riparian zones, designating stock trails, managing leases, developing management plans and agreements, and canceling or adjusting livestock driveways.

Permanent increases in available forage are considered for wildlife and watershed protection before additional livestock use is authorized. Livestock management includes converting to new types of livestock; authorizing livestock grazing; and adjusting season of use, distribution, kind, class, and number of livestock. Salt or mineral supplements may be provided to help manage livestock.

Geology and Minerals Resources

The lands administered by the Wyoming Bureau contain some of the most prolific oil, gas, coal and trona producing areas in the Rocky Mountain region. Mineral development is subject to leasing, location, or sale based on the Federal mineral law (such as the Mineral Leasing Acts and amendments) covering that particular commodity. Conditions under which the development of these minerals can occur are determined through land use planning. The planning area will be open to consideration for exploration, leasing, and development of leasable minerals including oil, gas, coal, oil shale, and geothermal.

The objective of minerals management actions is to make public lands and Federal mineral estate available for orderly and efficient development of mineral resources. The Bureau's mineral program is divided into salable minerals, leasable minerals, and locatable minerals.

Salable Minerals. Deposits of salable minerals are scattered throughout Wyoming. Salable minerals include sand, gravel, sandstone, shale, limestone, dolomite, and granite rock. These materials were historically used for building, road surfacing, and tools. Today, salable minerals are mainly used for maintaining roads and activities associated with the oil and gas industry.

The Bureau provides sand, gravel, and stone from Federal mineral deposits as necessary to meet the need for Federal, state, and local road construction and maintenance projects in the planning areas. Before issuing contracts or free use permits for salable minerals, the Bureau conducts the appropriate environmental analyses including special studies or inventories of cultural resource values, threatened or endangered plant and wildlife species, and other resources. Stipulations or conditions may be included in the terms of the contract to ensure protection of the natural resource and reclamation of the land following project completion. Sand and gravel, scoria, flagstone, moss rock, and other minerals are available for free use or sale, but are subject to conditions and stipulations developed on a case-by-case basis.

Site reclamation is required following any surface-disturbing activity by mining for salable minerals. Reclamation includes removing all surface debris, recontouring, reducing steep slopes, and planting vegetation. All reclamation proposals must conform to state agency requirements and must be approved by the Bureau.

Salable minerals are disposed of under the Materials Act of 1947, as amended, and as such are discretionary actions.

Leasable Minerals. Leasable minerals include fluid (oil, gas, geothermal) and solid minerals such as coal, trona, and phosphate. Bentonite and uranium are leasable on acquired lands.

Current use of coal is primarily for generation of electricity. Coal in Wyoming is most generally extracted using surface mining methods although in the past some coal was mined underground. The underground mining method is proposed for some future operations. Surface mining requires a Federal coal lease from the Bureau, mining permits from the State and mine plans approved by the Office of Surface Mining. Surface mining involves the use of large equipment such as draglines, shovels, haul trucks, etc. Small drill rigs are used for exploration to determine the location and thickness, and obtain cores (for determining quality). Extracting coal using surface mining methods often results in large areas of surface disturbance from road

construction, removal of topsoil and overburden, and stock piling of these materials. Once an area is mined out, reclamation begins and includes recontouring as closely to the original landscape as possible, reconstruction of drainages, and reseeding and monitoring to assure the habitat is useable. Coal is leased under the Mineral Leasing Act of 1920 and the Federal Coal Leasing Amendments Act of 1976.

Trona is used as an ingredient in baking soda, paint, glass, toothpaste, soap, ceramic tiles, porcelain fixtures, paper, water softeners, and pharmaceuticals. Wyoming is the largest producer of trona in this country and has the largest known reserve of trona in the world. Trona is generally mined underground with the long wall mining method. Surface facilities are generally processing plants, offices, and maintenance buildings along with associated roads.

Uranium is used as a nuclear fuel for generating electricity, nuclear explosives, and medicine. The radiation in uranium is also used in agricultural and industrial activities for diagnostic tools to detect welding problems, in the manufacture of steel products, or to reduce the spoilage of certain foods. Uranium is generally categorized as a locatable mineral but is considered a leasable mineral on acquired lands. Surface facilities include processing plants, equipment maintenance buildings, and offices.

Leasable bentonite also occurs on acquired lands. Bentonite is surface-mined with mechanized shovels, haul trucks, etc. Drilling is used to locate the bentonite. Large areas of surface disturbance occur through removal of the overburden, overburden stockpiles, surface facilities and roads. Surface facilities include processing plants, equipment maintenance buildings, and offices.

Fluid leasable minerals include oil, gas, and geothermal steam. Leasing of oil and gas resources is under the authority of the Mineral Leasing Act of 1920, as amended. Leasing is administered by the Bureau through a competitive and non-competitive system. The Bureau receives nominations of lands to be put up for sale at bimonthly competitive oil and gas sales. These nominations are gathered together into a parcel list and sent to the respective Bureau field offices for the attachment of protective stipulations. These stipulations are derived from the RMPs. The parcel list is returned to the Bureau Wyoming State Office and once verified, are put together into the Notice of Competitive Oil and Gas Sales booklet. This Notice must be posted for the public 45 days before the lease sale is held. Once the parcel is sold, it is then issued into a lease.

Initial exploration for oil and gas resources is often conducted using geophysical methods. Geophysical exploration involves the use of all-terrain vehicles (ATVs) and other vehicles to lay the geophones, drill the shot holes for charges, or as "thumpers" to create sound waves instead of using charges and then the removal of the geophones and reclamation of shot holes if used. Exploration for oil and gas (including coal bed natural gas) may also include the drilling of one or more wells to test for the reservoir and its productive viability. During the exploration phase of drilling, surface disturbing activities include the construction of roads, well pads, reserve pits, and other facilities.

Development of oil and gas fields includes construction of the same types of facilities used during exploration, but in addition it may be necessary to obtain Federal rights-of-way for product pipelines and power lines. Other surface uses associated with oil and gas development include construction of storage tank batteries and facilities to separate oil, gas, and water. Compressor engines (can be gas-powered or electric) may be required to move gas to a pipeline.

Diesel, gas, or electric pumps and other related equipment may be needed to lift the oil, gas, or water from the well to the surface. Generally, there is an average of 3 acres for each drill pad, 1 mile of road, and 1 mile of pipeline for each drill site. This can vary widely with each project. Directional drilling requires a bigger pad than the standard vertical configuration, with multiple wells per pad requiring additional acreage. Size is dependent on the number of wells drilled from each pad.

Water is often produced concurrently with oil and gas production and disposal methods can range from subsurface re-injection to direct surface discharge into a containment pond or pit. Some fields may have large volumes of water or very little water. Water that cannot be discharged to the surface because of its chemical makeup may be treated before surface discharge or may be reinjected. Roads may range from simple two-track unimproved roads to maintained crown and ditched roads designed by an engineer. The time required to drill a well may range from one day to over a month and depends on the type of well (vertical or directional), depth of the well and types of rocks encountered. Reclamation involves reseeding and the recontouring of unneeded roads and unneeded portions of the well pads.

Geothermal resources are available for exploration, development, and production and are subject to the same surface disturbing and other restrictions applied to oil and gas exploration, development and production. Similar to oil and gas leasing, the Bureau administers geothermal leases through a competitive and non-competitive system. The Geothermal Steam Act of 1970 authorizes leasing. There are currently no geothermal leases authorized within Wyoming.

Locatable Minerals. Locatable metallic minerals include silver, gold, platinum, cobalt, and other precious and base minerals. Bentonite and uranium are also locatable except on acquired lands. Minerals are locatable under the 1872 Mining Law. Most public lands are open to location with the exception of withdrawn lands. The Mining Law of 1872 sets the requirements for lode claims, placer claims, and mill sites as well as discovery, location, annual filings, assessment work, and mineral examinations to establish validity.

Off-Highway Vehicles

The objective of off-highway vehicle (OHV) management is to offer outdoor recreational opportunities on Bureau-administered public land while providing for resource protection, visitor services, and the health and safety of public land visitors. Using motorized OHVs requires no Federal fees or permits (state use permits are required), and use is restricted depending on whether an area has been designated as closed, limited, or open. During OHV management activities, the Bureau designates closed, limited, or open areas for OHV use; posts signs, maps, and develops brochures; permits OHV rallies, cross-country races, and outings; monitors OHV use, and performs necessary tasks requiring OHV use. OHV use (including over-the-snow vehicles) on the majority of Bureau-administered lands is limited to existing roads and trails. Some areas are closed to OHV use. Use of OHVs off of designated routes up to 300 feet is allowed for activities like firewood gathering, campsites, or retrieval of harvested game animals.

Until signing is implemented, OHV use in "limited" areas will only be permitted on existing roads and vehicle routes. OHV travel is prohibited on wet soils and on slopes greater than 25 percent if damage to vegetation, soils, or water quality would result. Seasonal restrictions may

be applied in crucial wildlife habitats as needed.

Paleontological Resources

The objective of paleontological resources management is to manage paleontological resources that are part of the Bureau-administered public land surface estate for their informational, educational, scientific, public, and recreational uses.

Using the land for scientific purposes, such as paleontological exploration, is authorized through a permit system. Fossils are part of the surface estate, such that whoever owns the surface consequently owns the fossils. Hobby collection of invertebrate fossils, plants, and petrified wood are allowed except in specified areas, however, for larger scale paleontological collecting, a permit is required before collecting any fossil vertebrates, significant fossil invertebrates, and plants on Bureau-administered public lands.

Potential effects on paleontological resources found on Bureau-administered public lands will be considered in site-specific environmental analyses before authorizing surface disturbance. Site-specific inventories will be required where significant fossil resources are known or are anticipated to occur. The closing of Bureau-administered public lands or restricting uses to protect paleontological resources are evaluated on a case-by-case basis.

Recreational Resources

The objective of recreation resources management is to offer outdoor recreational opportunities on lands administered by the Bureau while providing for resource protection, visitor services, and the health and safety of public land visitors.

Recreation management includes allowing recreational access and use by the public, developing recreational areas, imposing restrictions, acquiring recreational access, and assessing effects of recreational use to the environment. The Bureau monitors recreational use, develops management plans, and evaluates and updates recreational potential.

Recreational activities allowed by the Bureau include hiking, hunting, mountain biking, boating and fishing, OHV use (including snowmobiles), horseback riding, and camping. Casual use of Bureau-administered public land for hiking, bicycling, hunting, fishing, and similar uses are allowed without charge or permitting. Large recreational events may include organized group hikes, motocross competitions, or horse endurance rides. The Bureau develops recreational and camping sites. This development includes maintaining or developing recreational sites and facilities, developing campgrounds, providing fishing and floating opportunities, maintaining developed and undeveloped recreation sites, adding developments as opportunities arise, adding interpretive markers, and constructing roads and interpretive sites.

The recreation program may place boundary signs, identify hazards on rivers, restrict recreational uses, limit motorized vehicles to existing trails, designate road use and recreation areas, require facilities to blend with the natural environment, and conduct field inventories. Recreation areas may impose specific restrictions to protect other important resources. Development and enforcement of stipulations and protective measures include designating OHV use, enforcing recreation-oriented regulations, patrolling high-use areas, and contacting users in the field.

Riparian Areas

The objective for riparian areas management is to maintain, improve, or restore riparian value to enhance forage, habitat, and stream quality. Priority for riparian areas management will be given to those areas identified as Colorado River cutthroat trout habitat. Laws and guidelines followed during riparian management include Executive Orders 11990 (wetland) and 11988 (floodplain), and section 404 of the Clean Water Act.

Riparian areas management is an integral part of all resources and related management programs. Management actions may include reductions in livestock numbers, adjustments in grazing distribution patterns, fencing, herding, and livestock conversions. Those activities that affect or are affected by riparian values will account for the riparian areas management objectives and direction. Resource values and uses that affect or are affected by riparian values include wildlife and fisheries habitat, forest resources, livestock grazing, OHV use, visual resources, cultural and historical resources, minerals exploration and development, lands and realty activities, watershed and soils resources, recreation uses, fire management, and access.

Sensitive Plants

The objective for sensitive plants management is to maintain and enhance known populations of sensitive plant species within Bureau-administered public lands. As habitats or sites for any future listed species are identified within a resource area, protective measures will be developed in consultation with the U.S. Fish and Wildlife Service.

The known populations of sensitive plant species will be protected from disturbance by maintaining or establishing fencing around the populations, and by intensively managing surface disturbance in adjacent areas that could affect the populations. Any proposed surface disturbance will be examined on a case-by-case basis to determine potential adverse effects and appropriate mitigation to minimize those effects. Developments, uses, and facilities will be managed temporally and spatially to avoid damage to the sensitive plant species.

Soils

The objectives for soil resources management are to maintain soil cover and productivity and improve areas where soil productivity may be below potential on surface lands administered by the Bureau.

Activities associated with soil mapping/sampling may include surveying, core drilling, use of pick-up truck mounted soil augers and core samplers (1 ½" to 2" in diameter) and back-hoes (usually around 12-24" in width and pits may be up to 6' deep) for digging soil characterization pits and trenches, using hand held shovels to dig holes or pits, and associated human and vehicle disturbances. These trenches are backfilled and revegetated/reseeded when surveys are complete. Disturbances are usually very small and of short duration in nature. Native terrain/vegetation can be reclaimed quickly. Surface soil erosion studies may also be conducted. These soil resource related activities in the planning area are mainly in support of other programs. Soil mapping and identification may require the digging of trenches to identify and measure soil horizons below the surface. Formal soil surveys are generally conducted under an agreement with the Natural Resource Conservation Service.

Other activities associated with soil resources may include reclamation of abandoned mine lands (AML) and open shafts, removal of waste rock in floodplains or streams, or cleanup of tailings. These reclamation programs are covered under the hazardous materials section of this document.

Timber harvest will be limited to slopes of 45 percent or less to protect water quality and to keep soil from eroding. OHV travel will be prohibited on wet soils and on slopes greater than 25 percent if unnecessary damage to vegetation, soils, or water quality would result. Roads and trails will be closed and reclaimed if they are heavily eroded, washed out, or if access roads in better condition are available. Unless waived, no surface disturbance or occupancy is allowed in areas of severe erosion between March 1 and June 15.

Surface Disturbance Restriction Decisions

Surface disturbance restrictions are necessary to protect certain sensitive resources and areas from adverse effects of surface disturbance and human presence, and include the various management actions developed in and analyzed for the approved RMP. These restrictions apply to all types of activities involving surface disturbance or human presence impacts, and are applied in accordance with the guidelines described in the Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities (SDA Guidelines). The SDA Guidelines include, where applicable, proposals for waiver, exception, or modification, based on analysis for individual actions. This would allow for situations where a surface-disturbing activity may actually benefit sensitive resources, and allow for those occasions when analysis determines that an activity will not affect those resources.

The SDA Guidelines will be used, as appropriate, to guide development in all programs where surface disturbance occurs and where the objectives of the RMP include the protection of important resource values. On a case-by-case basis, activities will be conditioned by any one or more of the mitigations in the SDA Guidelines to avoid or minimize impacts to other important resource values and sensitive areas. Use restrictions (e.g., dates and distances) may be made more or less stringent, depending on the needs of specific situations. The restrictions identified under the various resource programs are complementary to the standards in the SDA Guidelines and are not all-inclusive. They represent actual requirements applicable to specific circumstances, and examples of requirements that will be considered and applied, if necessary. Surface-disturbing activities may be further restricted as necessary.

The mitigations identified in a particular RMP serve to protect affected resources, not to unnecessarily restrict activities. The RMP provides the flexibility for modifications or exceptions to restrictions in specific circumstances where a restriction is determined not to apply or is not needed to achieve a desired objective.

Surface disturbance is characterized by the removal of vegetative cover and soil materials. Where actual excavation does not occur, activities may be allowed to occur with less stringent limitations provided that the objectives and purpose for the surface disturbance restrictions are met. Examples of less stringent application of the SDA Guidelines would be timber harvesting within 500 feet of streams or riparian areas and on slopes greater than 25 percent. This would apply to those timber harvest activities, such as tree cutting, skidding, and slash disposal, which do not fully remove vegetative cover and soil materials. In the past, allowing these activities with a 100-foot streamside buffer distance and on slopes greater than 25 percent did not produce

detrimental effects. However, road construction or staging/loading areas for logging equipment would not meet the less stringent definition and would be subject to the standard requirements of 500 feet and 25 percent slope.

The mitigations prescribed for Federal mineral development on split-estate lands (Federal minerals beneath a non-Federal surface) apply only to the development of the Federal minerals. These mitigations do not dictate the surface owner's management of their lands. The mitigations present restrictions on only those surface activities conducted for purposes of developing the Federal minerals and that are permitted, licensed, or otherwise approved by the Bureau.

When the Bureau considers issuing a mineral lease, the agency has a statutory responsibility under the National Environmental Policy Act (NEPA) to assess the potential environmental impacts of the Federal undertaking. It also has the statutory authority under the Mineral Leasing Act (MLA) of 1920, the Mineral Leasing Act for Acquired Lands (MLAAL), and the Federal Land Policy and Management Act (FLPMA) of 1976 to take reasonable measures to avoid or minimize adverse environmental impacts that may result from Federally-authorized mineral lease activities. This authority exists regardless of whether or not the surface is Federally-owned.

The MLA, the MLAAL, and the FLPMA are not the only statutes that establish such authority. Other statutes that may be applicable include the Clean Water Act, the Clean Air Act; the National Historic Preservation Act; the Endangered Species Act of 1973, as amended (ESA); the Federal Coal Leasing Amendments Act of 1976; and the Surface Mining Control and Reclamation Act of 1977. Moreover, the recently enacted Federal Onshore Oil and Gas Leasing Reform Act of 1987 specifically require the Bureau to regulate surface disturbance and reclamation on all leases.

Threatened, Endangered, and Candidate Species Protection

The management objectives of threatened, endangered and candidate species protection are to maintain biological diversity of plant and animal species and conserve these Special Status Species through the use of all methods and procedures necessary to improve the condition of Special Status Species and their habitats to a point where their special status recognition is no longer warranted to the extent practical and consistent with the Bureau's multiple-use management requirements (BLM 2001). The Bureau maintains and improves forage production and quality of rangelands, fisheries, and wildlife habitat and provides habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the ESA, approved recovery plans, conservation measures, and best management practices.

Under the ESA, the Bureau is required to protect known populations of threatened or endangered species. The Bureau's threatened and endangered species management activities include protecting habitat and known populations, enforcing timing stipulations, conducting surveys, and closing known locations of sensitive populations or habitat to surface-disturbing activities.

Vegetation Resources

The objectives of vegetation resource management are to maintain or improve the diversity of

plant communities to support timber production, livestock needs, wildlife habitat, watershed protection, and acceptable visual resources. Under this program, the Bureau enhances essential and important habitats for special-status plants species on Bureau-administered public land surface and prevents special-status plant species from the need to be listed as threatened and endangered; and to reduce the spread of noxious weeds.

Vegetation treatments, including timber harvesting and sagebrush spraying or burning, are designed to meet overall resource management objectives. Cooperative integrated weed control programs are used to implement work on adjoining deeded and state lands in cooperation with county weed and pest districts. The three types of control used by the Bureau on public lands are chemical, biological, and mechanical. Biological control can involve the use of insects such as weevils, beetles, or herbivores such as goats. This method may be used in cooperation with mechanical control (e.g., dozing, cutting, chopping). Sagebrush control measures are also implemented by the Bureau. These control methods may be chemical or mechanical. Fire is used to improve range forage production, wildlife habitat, timber stands, sale debris disposal, and to reduce hazardous fuel buildup. Noxious weed control is typically implemented along rights-of-way.

Trees will be planted on timber harvest areas that fail to regenerate naturally in order to achieve minimum stocking levels within five years after completing harvest and rehabilitation. Pre-commercial tree thinning will be initiated on overstocked seedling- and sapling-size stands. Temporary use of heavy equipment may be associated with these authorized activities.

If herbicides are proposed for use, minimum-toxicity herbicides should be used with appropriate buffer zones along streams, rivers, lakes, and riparian areas, including those along ephemeral and intermittent streams. Only Federally-approved pesticides and biological controls are used. Local restrictions within each county are also followed. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect these species. Pesticide Use Proposals (PUPs) and Biological Use Proposals (BUPs) are developed cooperatively with the County Weed and Pest Districts and the Bureau. All PUPs and BUPs are reviewed by the Bureau's Wyoming State Office Noxious Weed Coordinator and approved by the Bureau's Wyoming Deputy State Director for Resource Policy and Management.

Visual Resources

The objectives of visual resources management are to maintain or improve scenic values and visual quality, and establish visual resources management priorities in conjunction with other resource values. Visual resources are managed in accordance with objectives for visual resources management (VRM) classes that have been assigned to each of the Bureau's Wyoming field offices. Visual resource classification inventories have been developed for some, but not all, of Wyoming.

No activity or occupancy is allowed within 200 feet of the edge of state and Federal highways. To improve visual resources, the Bureau requires the design of facilities to blend in with the surroundings, reclaims watershed projects and water wells, regulates discharge of produced water, and restricts activities that might degrade visual resources. Facilities or structures such as power lines, oil wells, and storage tanks are required to be screened, painted, and designed to blend with the surrounding landscape except where safety indicates otherwise. Any facilities or

structures proposed in or near wilderness study areas will be designed so as not to impair wilderness suitability.

Watershed and Water Resources

The objectives of watershed and water resources management are to maintain or improve surface and groundwater quality consistent with existing and anticipated uses and applicable state and Federal water quality standards and to provide for availability of water to facilitate authorized uses. This program also aims to minimize harmful consequences of erosion and surface runoff from Bureau-administered public land.

Passing of the Water Resources Research Act, Water Resources Planning Act, and the Water Quality Act of 1965 allowed the Bureau to expand its water resources program and increased cooperation with soil conservation districts. Activities authorized under water resources management may include implementation of watershed plans, identification of heavy sediment loads, monitoring and treating soil erosion, evaluating and restricting surface development, and monitoring water quality.

No surface disturbance will be allowed within 500 feet of any spring, reservoir, water well, or perennial stream unless waived by the Bureau's authorized officer. Pollution prevention plans are developed for actions that qualify under the Wyoming Storm Water Discharge Program to reduce the amount of non-point pollution entering waterways. The rights to water-related projects on public lands will be filed with the Wyoming State Engineer's Office in order to obtain valid water rights.

Wild and Scenic Rivers

The objectives of wild and scenic rivers management for public lands administered by the Bureau are to maintain or enhance the outstandingly remarkable values and wild and scenic rivers (WSR) classifications until Congress considers them for possible designation. The Bureau's wild and scenic rivers management program includes studying segments of rivers for potential classification by Congress. The suitable determination is based on the uniqueness of the diverse land resources and their regional and national significance, making them worthy of any future consideration for addition to the WSR system.

The only designated wild and scenic river in the state is Clarks Fork of the Yellowstone River on National Park Service land. None of the Wyoming Bureau RMP areas analyzed contain a designated WSR. The Cody, Kemmerer, Lander, Pinedale, Great Divide (Rawlins), Green River (Rock Springs), and Washakie (Worland) RMPs manage eligible and suitable WSR stream or river segments, however, no WTPD habitat occurs within these segments.

Wild Horses

The objectives of wild horse management are to maintain a viable herd that will preserve the free-roaming nature of wild horses in a thriving ecological balance and to provide opportunity for the public to view them. The FLPMA amended the Wild and Free Roaming Horse and Burro Act to authorize the use of helicopters in horse and burro roundups. Wild horse and burro populations have more than tripled since passage of the Wild and Free Roaming Horse and Burro

Act in 1971. Wild horse and burro numbers on Bureau-administered lands in Wyoming were estimated at 37,000 in 2004; this compares with horse numbers on Bureau-administered lands in the west that are currently estimated at more than 60,000 compared to 17,000 in the late 1960s.

Under its Wild Horse Program, the Bureau herds, corrals, transports, monitors, and rounds up horses for wild horse management. Herds are monitored by airplane census and counted each year. Helicopters may also be used to round up wild horses. The construction of corrals and capture facilities could cause impacts through ground disturbance and concentrated human presence. Horse round-up generally causes concentrated compaction by horse hooves in corral and load-out areas. Placement of capture corrals and capture facilities outside of prairie dog habitat is important as the concentrated disturbance could potentially be an adverse effect to this species and its habitat.

RMPs are used to plan wild horse management. The Bureau decides how many horses to allow in a certain area. This is termed the approximate management level and the Bureau can adjust horse numbers as needed. Issues such as carrying capacity, trends in utilization, and public input are considered. The Bureau's wild horse management specialists coordinate with wildlife biologists and archaeologists to ensure that wild horse management will not cause adverse impacts to biological or cultural resources.

Wilderness Resources

All Wilderness Study Areas (WSAs) are managed under the Interim Management Policy (IMP) until Congress issues management guidelines. There are three categories of public lands to which the IMP applies: (1) WSAs identified by the wilderness review required by Section 603 of the FLPMA, (2) legislative WSAs (i.e., WSAs established by Congress, of which there are none administered by the Bureau in Wyoming), and (3) WSAs identified through the land-use planning process in Section 202 of the FLPMA. The Bureau ensures that proposed actions are consistent with land use plans in effect for WSAs. Absence of roads, total area extent, naturalness, solitude, or a primitive and unconfined type of recreation; and other ecological, geological, educational, scenic, or historical features may be considered wilderness values. Activities associated with this program may include inventories to identify wilderness areas, public involvement with the wilderness study process, authorization of mining claims under unique circumstances, or evaluations of proposed actions to determine potential impacts to known or potential wilderness values.

A mining claim may be staked at any time in an existing WSA. NEPA analysis is required, however, before any activity is authorized in a WSA. Environmental Assessments (EAs) or Environmental Impact Statements (EISs) are prepared to determine if a proposal meets non-impairment criteria. Categorical exclusions to eliminate this analytical process for uses and facilities on lands under wilderness review are not allowed. Discovery work for mining within a WSA under Section 603, must be done to non-impairment standards. Operators prepare a Plan of Operation before beginning any mining exploration. The plan identifies the mining strategy and attempts to minimize environmental impacts. Only "unnecessary and undue degradation" requirements apply to Section 202 WSAs.

The designation of WSA status is simply a designation, and tempers or stipulates from a WSA viewpoint, specific protections or management of other Bureau-authorized actions. WSA

classifications, in and of themselves, do not place on-the-ground projects or ground disturbing activities. Generally, WSA status is a beneficial impact on wildlife and plant species.

Wildlife Habitat

The Bureau has identified four primary objectives for the management of wildlife habitats. First, the Bureau will maintain the biological diversity of plant and animal species. Second, it will support the population objective levels of the Wyoming Game and Fish Department's (WGFD) strategic plan to the extent practical and consistent with the Bureau's multiple-use management requirements. Third, the Bureau will maintain and, where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitats. Finally, to the extent possible, the Bureau will provide habitats for threatened and endangered and special-status plant and animal species on all public lands in compliance with the ESA and approved recovery plans.

Approximately 90 percent of wildlife program activities support other resource programs. These programs include fuels reduction, density of timber stands in deer and elk winter habitats, oil and gas exploration, timber harvest, and prescribed fires. Specific management goals and actions apply to several wildlife groups and habitats including big game ranges, wetland and riparian areas, elk habitat, raptor and grouse breeding areas, and animal and insect damage control.

Big game and fisheries management levels identified in the WGFD 1990-1995 strategic plan are supported by the Bureau. The Bureau cooperates with the WGFD to introduce or reintroduce native and acceptable non-native wildlife and fish where potential habitat exists. Wildlife habitat is monitored and population adjustments and habitat improvements are recommended to the WGFD, as appropriate. The Bureau works with the Service and the WGFD to evaluate and designate critical habitat for threatened and endangered species on Bureau-administered public lands.

The Bureau's wildlife program is actively involved in projects and management activities that benefit wildlife and habitats for wildlife. Wildlife program projects include surveying; monitoring; improving habitats such as through the development of habitat management plans; and creating cooperative management areas. Management activities include developing stipulations and protective measures, acquiring land, conducting inventories, performing livestock- or forestry-related activities, and improving wildlife and fisheries habitats.

The Bureau develops stipulations and protective measures to protect wildlife and fisheries habitats. These stipulations and measures include limiting surface development; use of timing restrictions; authorizing withdrawals of some areas from mineral entry; limiting access to specific areas by four-wheel-drive vehicles, snowmobiles, equestrians, and pedestrians; prohibiting surface development; and imposing road closures. The Bureau may acquire riverfront land or easements and conduct inventories of potential habitats for occurrences of threatened, endangered, and sensitive species.

Livestock-related wildlife management activities include developing water sources, constructing and maintaining fences, managing other resource activities to conserve forage and protect habitats, improving the production of forage and the quality of rangelands, and improving range with mechanical treatment. Forestry-related wildlife management activities include managing timber and promoting cutting, thinning, planting, seeding, and pitting.

The Bureau also conducts wildlife management activities specifically to benefit terrestrial and aquatic wildlife. Activities for terrestrial species include, but are not limited to, introducing species, monitoring habitats, modifying fences for antelope passage, implementing public use closures for wintering elk, developing water areas for waterfowl and waterbirds, recommending habitat improvement projects, conducting treatments to control exotic plants, conducting prescribed burns, restoring meadows, cabling or burning juniper forestlands, changing types of grazing and season of grazing, developing islands, allowing farming, managing accesses, authorizing agricultural entry and disposal, and using surface protection mitigations. Activities for aquatic species include establishing a baseline fisheries inventory, improving fish habitat, stabilizing banks, developing watering sources, modifying barrier fences, removing exotic fish, constructing instream barriers to protect species from non-native invaders, installing revetments and fish passage structures, installing log overpours, sampling and analyzing macroinvertebrates, installing gabion baskets, and placing large boulders for instream fish habitat. Specific management for white-tailed prairie dogs might be the use of deltamethrin to control fleas that transmit sylvatic plague in prairie dogs. Active prairie dog burrows are treated with deltamethrin with the intent of protecting prairie dogs from plague. However, deltamethrin is a long-lasting (up to eight months) insecticide and will kill various insects (e.g., beetles, ants, etc.).

REFERENCES

U.S. Bureau of Land Management. 2007. Statewide Programmatic Biological Evaluation for the White-tailed Prairie Dog. Cheyenne Bureau of Land Management Office. May 2007. 60 pp.

ATTACHMENT 2 - CONSERVATION STRATEGY TAKEN FROM THE PROGRAMMATIC WHITE-TAILED PRAIRIE DOG BIOLOGICAL EVALUATION

This conservation strategy was taken from the Programmatic White-tailed Prairie Dog Biological Evaluation (2007). Implementation of the following is intended to aid in the conservation of the white-tailed prairie dog and minimize potential adverse impacts that could result from implementation of the management actions provided in the Great Divide (Rawlins) (BLM 1990), Cody (1990), Kemmerer (1986), Lander (1987), Pinedale (1988), Green River (Rock Springs) (1997), Worland-Washakie (1988), Worland-Grass Creek (1988), and Platte River (Casper) Resource Management Plans (RMP). The U.S. Bureau of Land Management (Bureau) has committed to implementing conservation measures 1 and 2. The Bureau will also consider implementing best management practices. The best management practices will be considered on a case-by-case basis at the project level, and are intended to further protect the species and its habitat.

Conservation Measures

1. The Bureau will ensure that there is no unauthorized control of white-tailed prairie dogs on Bureau-administered public lands. Prairie dog control on public land shall not be authorized except for human health and safety reasons or for resource damage determined acceptable for control by the Bureau.
2. Notify members of the public that are seeking white-tailed prairie dog control on public lands that unauthorized use of poisons for white-tailed prairie dog control is not allowed on Bureau-administered public lands.

Best Management Practices

The following best management practices are to be considered on a case-by-case basis at the project level, and implemented where appropriate, to further protect the white-tailed prairie dog.

3. New access roads should avoid traversing prairie dog colonies or bisecting two closely adjacent colonies to avoid surface disturbing impacts and improving access for recreational shooters.
4. New prairie dog towns should be allowed to become established on public lands.
5. No further oil and gas exploration and development should be allowed into occupied prairie dog colonies, or the Bureau should apply a Condition of Approval (COA) on all Applications for Permit to Drill (APDs) within areas containing known populations of white-tailed prairie dogs that protects rearing of young from April 1 through July 15. When possible, a No Surface Occupancy stipulation should be applied to all occupied and recovering prairie dog habitat for well pads or ancillary facilities (e.g., compressor stations, processing plants, etc.) within 1/8th mile of white-tailed prairie dog habitat. When possible, no seismic activity should be allowed in occupied or recovering prairie dog habitat.

6. A steering committee should be formed to develop and prioritize management practices and assist the Bureau and the U.S. Fish and Wildlife Service with research efforts.
7. If cultural sites are found within white-tailed prairie dog habitat/colonies, developed interpretive sites should be placed outside of white-tailed prairie dog habitat whenever possible.
8. Actively participate in implementation of the conservation assessment for white-tailed prairie dogs.
9. Follow the guidelines outlined in the white-tailed prairie dog Conservation Assessment: Encourage the Wyoming Game and Fish Commission to remove unprotected status on prairie dogs, and, if appropriate, work with the Wyoming Game and Fish Department to implement seasonal restrictions on white-tailed prairie dogs shooting or seasonal firearms/shooting restrictions or closures on Bureau-administered properties with white-tailed prairie dogs between April 1 and July 15.
10. Establish land stewardship agreements with other agencies and/or private landowners where large (1,000 acres) WTPD towns or complexes exist adjacent to Bureau-administered land ownership. These agreements can control potential uses that may be detrimental to prairie dogs and their habitats, while preserving the landowner's intent for use.
11. The Bureau should avoid the sale or exchange of lands with white-tailed prairie dogs and should attempt to acquire parcels with white-tailed prairie dogs on them.
12. Ensure that white-tailed prairie dog conservation is being addressed on all livestock permit renewal evaluations and associated environmental assessments for oil and gas developments, rights-of-way grants, organized recreational events, etc.
13. Livestock grazing practices that degrade prairie dog habitat should be eliminated in white-tailed prairie dog colonies: grazing should be reduced or eliminated during drought; practices should avoid vegetation stand conversions; and reduce or eliminate any other suspected ecosystem-degrading grazing practices.
14. Natural fire regimes should be restored in white-tailed prairie dog habitats: "let burn" policies for white-tailed prairie dog towns; and no mechanical or chemical (herbicides) fuel treatments should be allowed in white-tailed prairie dog towns.
15. The Bureau will encourage, support, and/or establish a white-tailed prairie dog research program, addressing issues such as: the effect(s) of shooting and oil and gas development on white-tailed prairie dogs, sylvatic plague control, and population viability analysis.
16. When drilling multiple oil or gas wells, if geologically and technically feasible, drill from the same pad using directional (horizontal) drilling technologies (up to 16 wells per pad, as technologically feasible) to lessen surface impacts on white-tailed prairie dog colonies/towns.

17. In white-tailed prairie dog habitat, salvage topsoil from all facilities construction and re-apply during interim and final reclamation. In white-tailed prairie dog habitat, native seed mixes will be used to re-establish short- or mid- grass prairie vegetation and shrub plantings will occur during reclamation. Seed mixes and application rates for reclamation should produce stands of vegetation suitable for white-tailed prairie dog habitat, while meeting the Bureau's requirements for stabilizing soil and controlling weeds. Seed mix application rates and shrub plantings for reclamation should be designed to produce stands of vegetation suitable for white-tailed prairie dogs in previously suitable white-tailed prairie dog habitat. Reclamation should attempt to return the plant community to the pre-existing condition as soon as possible.
18. When habitat conversion does occur, take steps to minimize and/or eliminate impacts.
19. Monitor populations across the species' range with thorough and consistent methods.
20. Consider the application of flea control on white-tailed prairie dogs and their burrows in areas with high plague incidence.
21. Maintain existing white-tailed prairie dog complexes and protect them as potential black-footed ferret reintroduction sites.
22. Consider setting aside one or two areas of good white-tailed prairie dog habitat in each Bureau Field Office area in Wyoming as mitigation and/or minimization compensation for unavoidable projects.

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