United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

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In Reply Refer To:
ES-61411/W.02/WY9860b

Memorandum

To: Robert Bennett, State Director, Bureau of Land Management, Wyoming 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: Inter-agency Coordination for the Black-tailed Prairie Dog (*Cynomys ludovicianus*) and the Effects from Bureau of Land Management Activities as Prescribed Through the Bureau's Resource Management Plans in Wyoming

Thank you for your March 8, 2007, comments on the U.S. Fish and Wildlife Service (Service) draft coordination memorandum for the U.S. Bureau of Land Management (Bureau) Programmatic Black-tailed Prairie Dog Biological Evaluation (BE). Specifically, the Bureau requested Service review of potential activities and conservation measures under the Bureau's Buffalo, Casper-Platte River, Cody, Newcastle, and Rawlins-Great Divide Resource Management Plans (RMPs) and their potential effects on the black-tailed prairie dog in Wyoming. A complete record of all documents and correspondence concerning this coordination are on file in the Wyoming Ecological Service's Field office.

History of Coordination

The Service and the Bureau began informally coordinating on impacts of Bureau activities to the black-tailed prairie dog on December 15, 2004. The Service reviewed a draft of the BE in December 2004 and provided comments on that draft directly to the Bureau. The Service received the Bureau's September 2005 version of the Programmatic Black-tailed Prairie Dog BE and request for coordination on October 3, 2005. As indicated in your September 2005 letter, those conservation measures presented in the BE but not yet included in the RMPs will be incorporated into the RMPs by either maintenance action or RMP amendment following the completion of this coordination effort. The Service provided the Bureau with a draft coordination memorandum on December 5, 2005. The Service received the Bureau's comments on that draft along with an updated version of the BE on March 8, 2007.

Project Effects

In the BE, the Bureau addressed effects of Bureau-authorized programs of the Buffalo, Casper-Platte River, Cody, Newcastle, Pinedale, and Rawlins-Great Divide RMPs on the black-tailed prairie dog. A complete description of the programs and conservation measures from the BE are included in Attachments 1 & 2.

On August 12, 2004, an updated review of all available scientific and commercial information led the Service to remove the black-tailed prairie dog as a candidate for listing under the Endangered Species Act (Act) of 1973, as amended, 16 U.S.C. 1531 *et seq*. The Service determined that new information regarding the range-wide impact of disease, chemical control and other lesser factors and recent state estimates of occupied black-tailed prairie-dog habitat, indicates that the black-tailed prairie dog does not meet the Act's definition of threatened.

We do, however, encourage the Bureau and their applicants to continue providing protection for the black-tailed prairie dogs as a sensitive species under Bureau policy (Bureau Manual 6840.06 E. Sensitive Species). Measures to protect the black-tailed prairie dog from further decline may include (1) avoidance of suitable habitat, (2) prohibition of ground disturbing activities in prairie dog towns, and (3) prohibition of any permanent above ground structures that may provide perches for avian predators. In addition, black-tailed prairie dog towns are an important habitat component for a variety of other species including the black-footed ferret, swift fox, mountain plover, ferruginous hawk, burrowing owl, and numerous other species The Service recommends that the Bureau continue to apply No Surface Occupancy stipulations and not approve variances to these stipulations in known black-tailed prairie dog habitat. We strongly encourage the Bureau to continue developing protective measures, with an assurance of implementation should black-tailed prairie dogs be found within project areas.

The Service has reviewed your BE for the black-tailed prairie dog and appreciates your efforts in providing a proactive analysis, subsequent effects determinations, and proactive conservation measures (Attachment 2). Your conservation measures should serve to better protect this species from further decline. If we may be of further assistance, please contact Alex Schubert of my staff at (307) 772-2374, extension 238.

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)

ATTACHMENT 1 - PROGRAM ACTIVITY DESCRIPTIONS SUMMARIZED FROM THE PROGRAMMATIC BLACK-TAILED PRAIRIE DOG BIOLOGICAL EVALUATION

These program descriptions are summarized from the Programmatic Black-tailed Prairie Dog Biological Evaluation (2007). It is expected that the activities described here will be implemented in the Buffalo, Casper-Platte River, Cody, Newcastle, and Rawlins-Great Divide Resource Management Plans (RMPs) over the life of the RMPs (10-15 years).

Programs which the U.S. Bureau of Land Management (Bureau) has identified as having potential detrimental impacts to the black-tailed prairie dog are: (1) Access Management, (2) Air Quality, (3) Cultural Resources Management, (4) Fire Management, (5) Forest Resources, (6) Hazardous Materials, (7) Lands and Realty Management, (8) Livestock Grazing Management, (9) Minerals, Energy, and Geological Resources, (10) OHV Use, (11) Paleontological Resources, (12) Recreation Management, (13) Threatened, Endangered, and Candidate Species Protection, (14) Vegetation Resources, (15) Wildhorse, (16) Wilderness and (17) Wildlife Habitat Management. Possible detrimental impacts to the black-tailed prairie dog from these programs as identified by the Bureau include: (1) destruction, fragmentation, or disturbance of habitat, (2) mortality, harm, or injury of individual black-tailed prairie dogs by vehicles or heavy equipment use, (3) increased access to recreational shooters, (4) creation of travel corridors for predators, and (5) creation of perches for raptors.

Programs which the Bureau has identified that will not detrimentally impact black-tailed prairie dogs or that will have beneficial effects include: (1) Areas of Critical Environmental Concern Management, (2) Riparian Areas Management, (3) Sensitive Plants, (4) Soil Management, (5) Surface Disturbance Restriction, (6) Visual Resources Management, (7) Watershed and Water Resources Management, and (8) Wild and Scenic Rivers Management. Beneficial effects identified by the Bureau include preventing some disturbances and minimizing impacts to prairie dogs and their occupied and unoccupied habitats and improvement of black-tailed prairie dog habitat quality.

Access Management

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 or 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 pursued as needed through a variety of methods including, but not limited to, purchase of rights-of-way or easements, land exchange, reciprocal rights-of-way, cooperative agreements, and other statutory authorities. Specific routes and acquisition procedures for securing access are determined through route analyses and environmental analyses as part of specific project and activity planning.

A detailed evaluation of areas with a high density of roads may be completed to determine needs for specific road closures or rehabilitation. Specific mitigation measures and design requirements for roads are developed through environmental analyses as part of specific project 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 is 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 Management

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 degrade visibility. Typical air quality management program activities include dust control, weather monitoring, and air quality data monitoring. The air quality management program may evaluate or restrict surface development activities. The Bureau ensures 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 the coordination of activities with the Wyoming Department of Environmental Quality (WDEQ) and the U.S. Environmental Protection Agency. Laws controlling air pollutants in the United States are 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 (PM_{10}), nitrogen dioxide (NO_2), ozone, sulfur dioxide (SO_2), and carbon monoxide (CO).

In addition to NAAQS and WAAQS, major new sources of pollutants or modifications to sources must comply with the New Source Performance Standards and Prevention of Significant Deterioration (PSD). 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 (ACEC) Management

The objectives of the Areas of Critical Environmental Concern (ACECs) Management Program are to ensure continued public use and enjoyment of recreation activities, while protecting and enhancing natural and cultural values; improving opportunities for high quality outdoor recreation; and, improving visitor services related to safety, information, interpretation, and facility development and maintenance.

Under the ACEC Management program, the Bureau closes areas where accelerated erosion is occurring; implements restrictions on logging and heavy equipment use; evaluates noxious weed and grasshopper control measures; applies restrictions on ground-disturbing activities; develops recreational trails; guides supervised tours; protects petroglyphs, artifacts, and cultural deposits from weathering and vandalism; and pursues land exchanges. .

Cultural Resources Management

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 are required prior to surface-disturbing activities or land exchanges.

Under this program, the Bureau performs inventory activities as well as land management activities. 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 activities are used for documentation and development of mitigation plans before other resource program surface-disturbing activities. Inventory activities commonly entail the use of hand tools, power tools, or heavy machinery. Inventories are divided into Class I, Class II, and Class III inventories. The Bureau does cultural resource inventories normally in response to surface-disturbing projects. Intensity varies between inventories. Inventories may involve 2-7 individuals and trucks, and may last from one day to several weeks.

Cultural resource land management activities involve managing sites for scientific, public, and sociocultural use; developing interpretive sites; restricting certain land uses; closing certain areas to exploration; prohibiting some surface-disturbing activities; preparing interpretive materials; and allowing the collection of certain invertebrate fossils. Archeological collections are authorized through a permit system. The cultural resource program may authorize installation of protective fencing of 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.

Under this program, any significant adverse effects on cultural resources are mitigated. Surface-disturbing activities are avoided near significant cultural and paleontological resource sites and within 0.25 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 (NRHP) are protected and would be managed for their local and national significance and 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 Management

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 activities are prescribed burning and wildfire suppression.

Prescribed fire objectives are to restore natural fire regimes and enhance rangeland habitats for livestock and wildlife. The prescribed fire program 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, improve wildlife habitat and grazing potential, or to reduce hazardous fuel loads.

Wildfires threatening higher resource values, including commercial timber areas, developed recreation sites, and areas of wildland/urban interface, or fires with potential to spread to private, state, or other federal lands are suppressed. Fire suppression activities vary with the intensity of

the wildfire and are conducted on an emergency basis. Fire lines are constructed to contain wildfires. 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 suppression area to its previous vegetative cover.

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

The fire damage restoration program proposes the Bureau use a technique called Analysis of Burned Area Emergency Rehabilitation (BAER) on all areas damaged by fire. This technique is used to evaluate the impact of restoration efforts on the ecosystems involved. Rehabilitation involves efforts to repair or improve lands that need to be recovered to a management-approved condition from wildfire damage, or to repair or replace resources damaged by a wildfire. Such activities may include planting small trees and shrubs to reestablish burned habitat, reestablishing native tree species lost in a fire, reseeding grasses and forbs, mulching stream banks, controlling grazing, repairing damage to minor facilities (campgrounds, exhibits, fences, guzzlers, etc.), otherwise restoring habitat, treating invasive plants, maintaining roads/trails, restoring heritage sites, or replacing fences.

Forest Resources Management

The objective of the Forest Management Program is 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. Multiple uses are found in forests and the Bureau manages forests for timber production, recreation, livestock grazing, wildlife habitat, and prescribed burning.

The program allows the cutting and removal of diseased trees, disease treatment by spraying, herbicide treatment 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 activities 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 enclosed by fence to prevent wildlife and livestock from damaging seedlings. Private and state land may be accessed for forest management purposes through acquisition of easement.

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 and enhance habitat for wildlife and to protect the soil and watershed values.

Hazardous Materials Management

The primary objective of the Hazardous Materials Program is to protect public and environmental health and safety on public lands administered by the Bureau. This program also seeks to comply with federal and state laws, prevent waste contamination due to any 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 Management

The objective of the Lands and Realty Management Program is 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 not critical to current management objectives will be disposed of through this 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.

Under this program, 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 respond to public requests for access, land authorizations, sales, or exchanges. Rights-of-way may be temporary or extend for two years or longer. If restricted types of rights-of-way are required in avoidance areas or when such areas can not reasonably be avoided, the adverse effects of construction will be intensively mitigated.

Under this program, the Bureau pursues cooperative agreements, develops recreation site facilities, considers offsite mitigation, minimizes access roads 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 activities are generally in support of other resource management programs and are authorized under the Realty Management Program. Under this program, the Bureau also rehabilitates access roads that are no longer needed, proposes easement negotiations, pursues access across private lands, and exchanges lands.

Cases are considered individually in mineral exchanges. Bureau-administered 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, and is a common method of solid waste disposal.

Livestock Grazing Management

The management objective of the Livestock Grazing Management Program 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, improve, or custodial. Certain areas may be closed to livestock grazing because of conflicts with other resource use areas including, but not limited to, 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, using noxious weed control, using mechanical or biological vegetative treatments to improve forage production, using heavy equipment, or herbicide treatment of decadent sagebrush.

Fencing activities authorized by the Livestock Grazing Management Program may include fence construction and repair, designing and implementing grazing systems, and building livestock exclosures 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, performing project work to enhance and improve 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.

Mineral, Energy, and Geology Resources Management

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 common varieties of sand, gravel, sandstone, shale, limestone, dolomite, and granite rock. Historical use of these materials includes building materials, road surfaces, and tools. Today salable minerals are mainly used for maintaining roads on public lands and also for 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 of 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 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 resources present 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. 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 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 electricity generation. Coal in Wyoming is most generally extracted using surface mining methods although in the past some coal was mined underground. Underground mining is proposed for some future operations. Surface mining requires a federal coal lease from the Bureau and a mining permit from the State. Mine plans must be approved by the Office of Surface Management. 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, 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 has been mined, reclamation begins and includes (1) recontouring as closely to the original landscape as possible, (2) the reconstruction of drainages, and (3) 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.

Current uses of trona include 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.

Leasable bentonite is also minded from acquired lands. Bentonite is surface-mined with shovels, haul trucks, etc. The bentonite is located by drilling. Large areas of surface disturbance occur in bentonite mining through removal of the overburden, overburden stockpiles, construction of surface facilities and roads. Surface facilities for bentonite mines 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. Fluid mineral 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 the bimonthly competitive oil and gas sales. These nominations are gathered together into a parcel list and are sent to the respective field offices for the attachment of stipulations. These stipulations are derived from the respective land use plans. The parcel list is returned to the state office and once verified is assembled into a Notice of Competitive Oil and Gas Sale booklet. This Notice must be posted for the public 45 days before the lease sale is held. Once a parcel is sold, a lease is then issued.

Initial exploration for oil and gas resources is often conducted using geophysical methods. Geophysical exploration involves the use of vehicles to lay the geophones and to drill shot holes for charges. Large "thumper trucks" are used in some cases to create sound waves in lieu of explosive charges. Exploration for oil and gas (including coal bed natural gas) may also include the drilling of one or more wells to test the reservoir and its productivity potential. 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 ways for 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, and 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 are an average of 3 acres for each drill site, 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 one well. Size is dependent on the number of wells drilled from each pad.

Water is often produced concurrently with oil and gas production. Water disposal methods can include subsurface re-injection; direct surface discharge; or discharge into a containment pond or pit. Oil and gas fields may have large volumes of water or very little. 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 be two track, unimproved roads, or crown and ditched roads. Over a month may be required to drill a well but this depends on the type of well (vertical or directional), depth and types of rocks encountered. Reclamation involves reseeding and recontouring unneeded roads and unneeded portions of 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 geothermal resource leasing.

Locatable Minerals

Locatable minerals include gypsum, silver, gold, platinum, cobalt and other precious and base minerals. Bentonite and uranium are also locatable except on acquired lands. Locatable minerals development is authorized under the 1872 Mining Law. Most public lands are open to locatable mineral development 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 Vehicle (OHV) Management

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 off-highway vehicles requires no fee and no permit, but their use is restricted depending on whether the area has been designated as closed, limited, or open.

In the OHV Management Program, the Bureau designates closed, limited, or open areas for OHV use; posts signs, maps, or 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 Bureau-administered lands is limited to existing roads and trails. Some areas are closed to OHV use.

Until signing has occurred, 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 are applied in crucial wildlife habitats as needed.

Paleontological Resources Management

The objective of the paleontological resources program 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. A paleontological collecting permit is required before collecting any fossil vertebrates, significant fossil invertebrates, and plants on Bureau-administered public lands.

Potential effects to paleontological resources on Bureau-administered public lands are considered in site-specific environmental analyses before the authorization of surface-disturbing activities. Site-specific inventories will be required where significant fossil resources are known or are anticipated to occur. Hobby collection of invertebrate fossils and petrified wood are allowed except in specified areas. The closing of Bureau-administered public lands or restricting uses to protect paleontological resources are evaluated on a case-by-case.

Recreation Resources Management

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.

Categories of activities of the Bureau for recreation management include 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. Large recreational events may include organized group hikes, motocross competitions, or horse endurance rides. The Bureau develops recreational and camping sites. Recreational site 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.

Under the recreation program, the Bureau 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, or conduct field inventories. Recreation areas may have specific restrictions to protect other important resources. Development and enforcement of stipulations and protective measures includes designating OHV use, enforcing recreation-oriented regulations, patrolling high-use areas, and contacting users in the field.

Riparian Areas Management

The objectives for riparian areas management will be to maintain, improve, or restore riparian value to enhance forage, habitat, and stream quality. Priority for riparian areas management are given to those areas identified as Colorado River cutthroat trout habitat.

Riparian areas management is an integral part of all resources and related management programs. Management actions may include reducing livestock numbers, adjusting grazing distribution patterns, fencing, herding, and implementing livestock conversions. Those activities that affect or are affected by riparian values, will take into account 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 activities, lands and realty activities, watershed and soils resources, recreation uses, fire management, and access management.

Laws and guidelines followed during riparian management include Executive Orders 11990 (wetland) and 11988 (floodplain), and section 404 of the Clean Water Act.

Sensitive Plants

The objective of the sensitive plants management program 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 are developed in consultation with the U.S. Fish and Wildlife Service (Service).

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

Soil Management

The objective for the Soil Management Program is to maintain soil cover and productivity and provide for improvement in areas where soil productivity may be below potential on surface lands administered by the Bureau. Timber harvest activities are limited to slopes of 45 percent or less to protect the water quality and to keep soil from eroding. OHV travel is 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 are closed and reclaimed if they are heavily eroded, washed out, or if access roads in better condition are available. No surface disturbance or occupancy is allowed in areas of severe erosion between March 1 and June 15.

Surface Disturbance Restriction

Surface disturbance restrictions are necessary to protect certain sensitive resources and areas from adverse effects of surface-disturbing activities and human presence. 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 Bureau's "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 allows for situations where a surface-disturbing activity may actually benefit sensitive resources, and allows for those occasions when analysis determines that a certain surface disturbance activity will not affect those resources.

The SDA Guidelines are used, as appropriate, to condition development activities in all programs where surface-disturbing activities occur and where the objectives of the RMPs include the protection of important resource values. On a case-by-case basis, activities are 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 both actual requirements applicable to specific circumstances, and examples of requirements that will be considered and that may be applied, if necessary. Additional restrictions may be placed on surface-disturbing activities as necessary.

The mitigations identified in a particular RMP serve to provide a degree of protection to affected resources, not to unnecessarily restrict activities. The RMPs provide flexibility for modifications or exceptions to restrictions in specific circumstances where restrictions are determined not to apply or are not needed to achieve a desired objective. The mitigations prescribed for federal mineral development on split estate lands (federal minerals beneath a nonfederal 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 is considering issuing a mineral lease, the agency has a statutory responsibility under the National Environmental Policy Act 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 (Act), 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 requires the Bureau to regulate surface disturbance and reclamation on all leases.

Threatened, Endangered, and Candidate Species Protection

The management objective of the Threatened, Endangered and Candidate Species Protection Program is to maintain biological diversity of plant and animal species by supporting the Wyoming Game and Fish Department strategic plan population objective levels to the extent practical and consistent with the Bureau's multiple-use management requirements. Under this program, 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 Act and approved recovery plans. 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 Resource Management

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; to enhance essential and important habitats for special status plants species on Bureau-administered public land surface and prevent the need for any special status plant species being listed as threatened and endangered; and to reduce the spread of noxious weeds.

Vegetation treatments, including timber harvesting, sagebrush spraying or burning, are designed to meet overall resource management objectives. Cooperative integrated weed control programs implement weed control 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 weevils, beetles, or 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 as a management tool to improve range forage production, wildlife habitat, timber stand improvement, sale debris disposal, and to reduce hazardous fuel buildup. Noxious weed control is typically implemented along rights-of-way.

Trees are 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 activities. Pre-commercial tree thinning is initiated on overstocked seedling- and sapling-size stands. Temporary use of heavy equipment may be associated with these authorized activities.

If the use of herbicides is proposed, 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 conjunctively with the County Weed and Pest Districts and the Bureau. All PUPs and BUPs are reviewed by the state Noxious Weed Coordinator and approved by the Bureau Assistant State Director.

Visual Resources Management

The objective of visual resources management is 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 the objectives of visual resources management (VRM) classes that have been assigned to Bureau-administered lands. Visual resource classification inventories have been developed for some, but not all, of the areas in Wyoming. To improve visual resources, the Bureau designs 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.

No activity or occupancy is allowed within 200 feet of the edge of state and federal highways. 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 are designed to not impair wilderness suitability.

Watershed and Water Resources Management

The objective of the Watershed and Water Resources Management Program is to maintain or improve surface and groundwater quality consistent with existing and anticipated uses and applicable state and federal water quality standards, to provide for availability of water to facilitate authorized uses, and 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 this program may include the implementation of watershed plans, identification of heavy sediment loads, monitoring and treating soil erosion, evaluating and restricting surface development activities, or monitoring water quality.

No surface disturbance is allowed within 500 feet of any spring, reservoir, water well, or perennial stream unless this stipulation is waived by the 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 or filed with the Wyoming state engineer's office in order to obtain valid water rights.

Wild and Scenic Rivers Management

The objective of the Bureau's Wild and Scenic Rivers Management Program is to maintain or enhance the outstandingly remarkable values undesignated wild and scenic rivers (WSR) until Congress considers them for designation. Wild and Scenic Rivers Management activities of the Bureau include studying segments of the river for potential classification by Congress. The suitability determination is based on the uniqueness of the diverse land resources and their regional and national significance, which may make them worthy of any future consideration for addition to the WSR system.

Wild Horse Management

The management objective of the Wild Horse Management Program is to maintain viable herds preserve the free-roaming nature of wild horses in a thriving ecological balance and provide viewing opportunities for the public. FLPMA amended the Wild and Free Roaming Horse and Burro Act and authorized 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, and horse numbers on Bureau-administered lands in the western U.S. are estimated at more than 60,000 as compared to 17,000 in the late 1960's.

Under the Wild Horse Program, Bureau personnel herd, corral, transport, monitor, and round up horses. Herds are monitored by airplane census and counted each year. Helicopters may also be used to round up wild horses. Land use plans are used to plan wild horse management. The Bureau decides how many horses to allow on a certain area. This is termed the Approximate Management Level and the Bureau adjusts horse numbers as necessary. Issues taken into consideration include carrying capacity, trends in utilization, and public input. The Bureau's wild horse management specialists coordinate with wildlife biologists and archaeologists to ensure that wild horse management does not cause adverse impacts to biological or cultural resources.

Wilderness Resources Management

Wilderness Study Areas (WSAs) on public lands are single-use resources managed in accordance with decisions issued by the U.S. Congress. Bureau managers ensure that proposed actions are consistent with the land use plan in effect for that area. Absence of roads, total aerial 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.

All 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 Federal Land Policy Management Act (FLPMA), (2) legislative WSAs (WSAs established by Congress), and (3) WSAs identified through the land-use planning process in Section 202 of the FLPMA.

A mining claim may be staked at any time in an existing WSA. National Environmental Policy Act analysis is required, however, before any activity is authorized. A plan of operation is prepared by operators before any mining exploration begins. The plan identifies the mining strategy and attempts to minimize environmental impacts. Discovery work for WSAs under Section 603 must be done to non-impairment standards. Only "unnecessary and undue degradation" requirements apply to Section 202 WSAs. Environmental Assessments or Environmental Impact Statements are prepared to determine if a proposal meets non-impairment criteria. The use of categorical exclusion to eliminate this analytical process for uses and facilities on lands under wilderness review is not allowed.

Wildlife Habitat Management

The objectives of wildlife habitat management are to maintain the biological diversity of plant and animal species; support the strategic plan population objective levels of the Wyoming Game & Fish Department (WGFD) to the extent practical and to the extent consistent with Bureau multiple-use management requirements; maintain and, where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and, to the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all Bureau-administered lands in compliance with the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*) and approved recovery plans.

Approximately 90 percent of wildlife program activities are in support of other resource programs such as fuels reductions, density of timber stands in deer and elk winter habitats, oil and gas exploration, timber harvest, or prescribed fires. Specific management goals and actions are developed for several different wildlife needs including big game ranges, wetland and riparian areas, elk habitat, raptor and grouse breeding areas, and animal and insect damage control. Under this program, the Bureau maintains and, where possible, improves forage productions and quality of rangelands, fisheries, and wildlife habitat, and provides habitat for threatened, endangered, and special status animal and plant species on Bureau-administered public land surface in compliance with the Act and approved recovery plans.

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 in introducing or reintroducing 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 in evaluating and designating critical habitat for threatened and endangered species on Bureau-administered public lands.

Wildlife management projects may include surveying, monitoring, habitat improvement activities such as developing habitat management plans, and creating cooperative management areas. The categories of wildlife management activity for the Bureau include developing stipulations and protective measures, acquiring land, conducting inventories, performing livestock or forestry-related activities, and wildlife and fisheries habitat improvement projects.

The Bureau develops stipulations and protective measures to enhance wildlife and fisheries habitat. These include authorizing withdrawals of some areas from mineral entry; limiting access of four-wheel drives, snowmobiles, horseback, and pedestrians; prohibiting surface development; and imposing road closures. The Bureau may acquire riverfront land or easements, and conduct inventories of potential habitat and occurrences of threatened, endangered, and sensitive species.

Livestock-related wildlife management activities include the development of water sources, construction and maintenance of fences, management of other resource activities to conserve forage and protect habitat, and improvement of forage production and quality of rangelands. Forestry-related wildlife management activities include the management of timber and the promotion of cutting, thinning, planting, seeding, and pitting.

Terrestrial wildlife management activities include introducing species, monitoring habitat, fencing modifications for antelope passage, implementing public use closures for wintering elk, development of water areas for waterfowl and waterbirds, recommending habitat improvement projects, treatment to control exotic plants, prescribed burns, meadow restoration, cabling of junipers, changing types of grazing and season of grazing, prescribed burning, developing islands, allowing farming, managing accesses, authorizing agricultural entry and disposal, and using surface protection mitigations.

Other wildlife management activities include establishing baseline fisheries inventories, fish habitat improvements, bank stabilization, development of watering sources, modification of barrier fences, exotic fish removal, construction of instream barriers to protect species from non-native invaders, installation of revetments and fish passage structures, installation of log overpours, macroinvertebrate sampling and analysis, installing gabion baskets, and placement of large boulders for instream fish habitat.

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

This conservation strategy is based on the conservation strategy presented in the Programmatic Black-tailed Prairie Dog Biological Evaluation (2007). Implementation of the following is intended to minimize potential adverse impacts that are likely to result from implementation of the management actions provided in the U.S. Bureau of Land Management (Bureau or BLM) Resource Management Plans (RMPs). The Bureau has committed to implementing conservation measures 1 through 9. The Bureau will also consider implementing best management practices (BMPs) 1 through 14, at every opportunity to further protect the black-tailed prairie dog.

Existing Conservation Measures

1. The Wyoming BLM Standard Mitigation Guidelines for Surface Disturbing Activities requires any lessee or permittee to conduct inventories or studies in accordance with Bureau and U.S. Fish and Wildlife Service (Service) guidelines to verify the presence or absence of threatened or endangered species before any activities can begin on site. In the event the presence of one or more of these species is verified, the operation plans of a proposed action will be modified to include the protection of the species and its habitat, as necessary. Possible protective measures may include seasonal or activity limitations, or other surface management and occupancy constraints.

2. The Bureau will follow the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for the Public Lands Administered by the Bureau in the State of Wyoming. Specifically, the Bureau will ensure that (1) soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff; (2) upland vegetation on each ecological site consists of plant communities appropriate to the site which are resilient, diverse, and able to recover from natural and human disturbance; and rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

3. The Bureau will ensure that grazing management practices will incorporate the kinds and amounts of use that will restore, maintain, or enhance habitats to assist in the recovery of Federal threatened and endangered species or the conservation of Federally-listed species of concern and other state-designated special status species. Grazing management practices will maintain existing habitat or facilitate vegetation change toward desired habitats. In grazing management activities, the Bureau will consider threatened and endangered species and their habitats.

4. The Bureau will ensure that grazing management practices will restore, maintain, or improve plant communities. Under its grazing management strategies, the Bureau will consider hydrology, physical attributes, and potential for the watershed and the ecological site.

5. The Bureau will maintain biological diversity of plant and animal species; support Wyoming Game and Fish Department (WGFD) strategic plan population objective levels to the extent practical and to the extent consistent with Bureau multiple use management requirements; maintain, and where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and to the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*) and approved recovery plans.

6. The Bureau's policy invokes a minimum 5-year status as a "BLM Sensitive Species" on any species following delisting of that species. The black-tailed prairie dog was removed as a candidate for listing under the Act on August 12, 2004. The Bureau's Policy Manual 6840 dictates that "the protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM Sensitive Species."

New Conservation Measures Committed to by the Bureau

7. The Bureau will ensure there is no unauthorized control of black-tailed prairie dogs on Bureau-administered 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.

8. The Bureau shall notify the public that unauthorized use of poisons for black-tailed prairie dog control is not allowed on Bureau-administered lands.

9. On any given grazing allotment containing black-tailed prairie dogs, the Bureau and grazing permittee will manage for a mosaic of range conditions. Areas occupied by prairie dogs may have reduced vegetation while other areas of the allotment which do not contain black-tailed prairie dogs may have thicker stands of grass and forbs.

Best Management Practices

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

1. New access roads should avoid intersecting a prairie dog colony or bisecting 2 adjacent colonies, to avoid access by recreational shooters.

2. New prairie dog towns should be allowed to become established on public lands.

3. 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 black-tailed prairie dogs that protects rearing of young from April 10 through July 10. 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 black-tailed prairie dog habitat. When possible, no seismic activity should be allowed in occupied or recovering prairie dog habitat.

4. A steering committee should be formed to develop and prioritize management practices and assist the Bureau and the Service with research efforts.

5. Actively participate in implementation of the Conservation Assessment and Strategy Plan for black-tailed prairie dogs.

6. Follow the guidelines outlined in the Wyoming Black-tailed Prairie Dog Management Plan. Encourage the Wyoming Game and Fish Commission to remove unprotected status on prairie dogs, and, if appropriate, work with the WGFD to implement seasonal restrictions on black-tailed prairie dog shooting or seasonal firearms/shooting restrictions or closures on Bureau-administered properties with black-tailed prairie dogs between April 1 and July 15.

7. Establish land stewardship agreements with other agencies and/or private landowners where large (1,000 acres) black-tailed prairie dog towns or complexes exist adjacent to Bureau-administered lands. These agreements can control potential uses that may be detrimental to prairie dogs and their habitats, while preserving the landowner's intent for use.

8. The Bureau should avoid the sale or exchange of lands with black-tailed prairie dogs and should attempt to acquire parcels with black-tailed prairie dogs on them.

9. Ensure that black-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.

10. Grazing should be reduced or eliminated during drought. Practices should avoid vegetation stand conversions.

11. Natural fire regimes should be restored in black-tailed prairie dog habitats: "Let burn" policies for black-tailed prairie dog towns; and no mechanical or chemical (herbicides) fuel treatments should be allowed in black-tailed prairie dog towns.

12. The Bureau will encourage, support, and/or establish a black-tailed prairie dog research program, addressing issues such as, (1) the effect(s) of shooting and oil and gas development on black-tailed prairie dogs, (2) sylvatic plague control, and (3) black-tailed prairie dog population viability analysis.

13. When drilling multiple oil or gas wells, if geologically and technically feasible, drill form the same pad using directional (horizontal) drilling technologies (up to 16 wells per pad, as technologically feasible) to lessen surface impacts on black-tailed prairie dog colonies/towns.

14. In black-tailed prairie dog habitat, salvage topsoil from all facilities construction and re-apply during interim and final reclamation. In black-tailed prairie dog habitat, native seed mixes will be used to re-establish short grass prairie vegetation during reclamation. Seed mixes and application rates for reclamation should produce stands of vegetation suitable for black-tailed prairie dogs habitat, while meeting the Bureau's requirements for stabilizing soil and controlling weeds. Seed mixes and application rates for reclamation should be designed to produce stands of low-growing vegetation suitable for black-tailed prairie dogs in previously suitable black-tailed prairie dog habitat. Reclamation should attempt to return the plant community to the pre-existing condition as soon as possible.

Reference

U.S. Bureau of Land Management. 2007. Statewide Programmatic Black-tailed Prairie Dog (*Cynomys ludovicianus*) Biological Evaluation. U.S. Bureau of Land Management Wyoming State Office, Cheyenne, Wyoming. 54 pp.