



PROJECT INFORMATION

Project Title: HWY-4 - Cuba SWCD Hazardous Fuels Removal

Project Type: FOREST MANAGEMENT, THINNING

Latitude/Longitude (DMS): 35.791445 / -106.682341

County(s): SANDOVAL

Project Description: The Entity will implement 115 acres of hazardous fuels reduction cost-share projects along the wildland-urban interface (WUI) of the Jemez Mountains in Sandoval County, New Mexico. This will include the Highway 485, Highway 4, Highway 126, Highway 550, and Highway 96 corridors. The Entity will assist private and non-federal public landowners by hiring local, qualified contractors to thin trees to densities consistent with United States Forest Service (USFS) and Forestry Division prescriptions. These densities are 40-60 sq. ft. of basal area (BA) in piñon-juniper woodlands and 60-80 sq. ft. of BA in ponderosa pine and mixed conifer forests.. This project will be available to private and non-federal public landowners located in forested areas within the Cuba Soil & Water Conservation District (CSWCD) boundary (see Map 1). This project area includes a variety of elevations supporting several vegetation types. These vegetation types are piñon-juniper, ponderosa pine, and mixed conifer. All forest types tend to be overstocked especially where thinning has not occurred recently. The project's intent is to hire local thinning contractors from throughout the CSWCD service area whenever possible. The objective of all project activities is to reduce the risk of catastrophic wildfires and improve overall forest health. This project will benefit surrounding communities by reducing fuels on the landscape which will lower the risk of catastrophic wildfire and create a safer forest. This will reduce the chance of large-scale erosion events caused by forest fire which will protect the Jemez River watershed. The Entity shall conduct thinning with the following considerations: The acres to be treated, and forest management practices employed on each parcel of land, shall be determined in conjunction with the Forestry Division and will be specified in a property specific Practice Plan. Proposed projects shall have pre-treatment data collected on all sites prior to thinning. Forest management practices shall be based on site specific conditions, landowner objectives, forest health, and fire prevention. Treatments shall mimic historical ponderosa, piñon/juniper, and mixed conifer stand conditions. Remaining trees shall be left in variable sized groups to create a heterogenous forest structure. Thinning shall meet forest density standards of 40-60 sq. ft. of basal area (BA) in piñon-juniper woodlands and 60-80 sq. ft. of BA in ponderosa pine and mixed conifer forests. These forest density standards can be exceeded if the project still meets fuels reduction objectives and there is an ecological reason for higher stand densities (ex. higher BA due to the retention of large diameter trees). If projects exceed the basal area standard, a justification must be provided in the practice plan or in the final inspection report. The prescriptions that shall be implemented include: 1) Special considerations for all forest types: A. Avoid cutting trees (live or dead) with nests in them. B. A=Avoid cutting down trees (live or dead) with signs of cavity nesting activity. C. Retain roost trees and trees with cavities when possible. D. Retain



large diameter standing dead trees (? 14 inches DBH) when possible. E. For projects with high numbers of standing dead trees (snags), snags shall be removed to reduce fire risk and future surface fuel loading. Leave 2-5 snags per acre for habitat benefit. Prioritize leaving larger and older snags. F. Do not cut any oak unless necessary for personal safety. G. A group of trees must be at least three trees or more. H. Where masticating operations are used, 70% percent of the mulched material shall be less than three inches in diameter and no longer than three feet in length. Mulch depth shall not be over five inches deep in any circumstance. No masticated material shall be allowed around the boles of leave trees. The masticator shall make no vertical pass longer than 75 feet up or down a slope. I. Where chipping operations are used, all slash shall be chipped to an average of two inches or less with no single depth of chips greater than six inches. J. Lop and scatter shall only be used when topography and access prevent equipment access and dragging of slash. Slash shall be cut to 2-3-foot lengths and spread to a layer less than 18" in height. Lopped material shall be spread in openings whenever possible. Leave gaps between scattered material to create breaks in fuel continuity. K. Lop and scatter of wood can attract bark beetle and green slash can serve as a breeding ground for them. When implementing lop and scatter forests affected by bark beetle, take care to lop material to 2-foot lengths and spread material in openings and in a thin layer (< 12"). Material needs to be spread in a way that allows it to dry out as quickly as possible. Lop and scatter shall not occur between April 15th and October 15th if bark beetles are active. L. Chipped, masticated, or lopped material shall not be banked against or touch the boles of leave trees. M. Trees for removal shall be selected by choosing dead trees first followed by mistletoe-infested trees, insect infested trees, and trees that are lacking vigor. A variety of size classes by species must always be left to promote stand diversity. N. Thin to emulate natural disturbance regimes (wildfire, drought, windthrow, etc.) which create a heterogenous forest structure characterized by individual trees, groups, and openings. Emulate naturally occurring variations in stand density based on topography (ex. higher tree densities in drainages and lower tree densities on south facing slopes). This method shall create the desired basal area without creating a uniform stand. Do not thin to any crown spacing guidelines. O. All stumps that are left shall be half the diameter of the tree or six inches, whichever is less. P. In piñon/juniper and ponderosa pine forest types, do not cut any Douglas fir, white fir, or spruce that may be present. Leave these species for stand diversity. Q. Douglas fir, white fir and spruce shall only be cut in mixed-conifer forest types. The post-treatment species composition in mixed-conifer stands should contain an equal proportion of species as were present prior to treatments. There should be a diversity of size classes by species. R. Do not cut any invasive trees species, such as Tree of Heaven, unless stumps can be sprayed with herbicide within 15-minutes of cutting. S. In areas showing signs of erosion, spread chipped material to hold soil in place. T. Do not cut trees or spread slash in arroyo bottoms. U. On slopes of 10% or greater or in areas showing signs of erosion, the boles of trees can be contour felled for erosion control. The boles shall be placed in a way to prevent their movement by using stumps, rocks, or other



obstructions. V. Do not cut trees that are growing within the large rocks or boulders. Leave these areas as a group. W. After thinning work has been completed, masticated material or chips shall be used to cover resulting access paths made by equipment during the project. Mulch depths in any road or travel path shall not exceed six inches. Repair of travel paths and roads must pass final inspection. 2) Piñon/juniper stands with the occasional (one to five trees per acre) ponderosa pine: A. Thin piñon/juniper leaving variable sized groups of trees. Post-thinning stand structure shall have openings, groups of trees, and individual trees. Retained piñon/juniper groups shall have a variety of species and size classes. Avoid overcutting just one size class. Instead, leave a diversity of size classes for each species. Leave the same mix of piñon/juniper that was present prior to cutting. Do not remove any one species more heavily. B. Groups shall fill a circle of at least 20-80 feet across. The groups shall be a variety of shapes and sizes and must always be separated with clearings. C. Remove piñon and juniper from within 25-feet of the drip line of ponderosa pines greater than 25-feet in height. Remove piñon and juniper from within 25-feet of the drip lines of any large diameter or tall piñon or juniper standing well above the average canopy. D. Remove all piñon and juniper trees within large oak motts. An oak mott is a stand of oak with multiple stems larger than six inches in diameter and eight feet or more in height. E. If piñon ips (*Ips confusus*) begins to cause significant damage, limit thinning or slash treatments in piñon/juniper forest types between April 15th and October 15th. 3) Ponderosa pine stands with an understory of piñon/juniper: A. Cut the ponderosa pine to create a heterogenous forest structure. Leave trees in variable sized groups. The groups shall have a variety of size classes. Avoid overcutting just one size class. Instead, leave a diversity of size classes for each species. B. Groups shall fill a circle of at least 20-80 feet across. The groups shall be a variety of shapes and sizes and must always be separated with clearings. Small trees that create ladder fuels within the groups shall be removed. If tree canopies are touching, or nearly touching, those trees are considered as a group. Spacing can exist between the trunks of the trees in a group. C. Remove piñon/juniper from within 15-feet of the drip line of ponderosa pine and large diameter or very tall piñon or juniper standing within or above the average canopy of ponderosa pine. D. Retain piñon and juniper trees that do not create vertical and horizontal fuel continuity. Large diameter or tall piñon and juniper trees shall be retained. E. Remove all piñon and juniper trees within large oak motts in the unit. An oak mott is a stand of oak with multiple stems larger than six inches in diameter and at least eight feet in height. 4) Ponderosa pine stands (mature or immature): A. Cut the mature ponderosa pine to leave groups and create openings. In even-aged Ponderosa pine stands, increase spacing between trees and introduce openings into the canopy. Leave a variety of size classes whenever possible. Avoid overcutting one size class. Instead, leave a diversity of size classes for each species. Always retain the oldest and largest size classes of ponderosa pine. B. Cut immature ponderosa into groups. Leave all seedling and sapling ponderosa that are already in groups of less than five feet in diameter. Protect the youngest age classes of ponderosa pine seedlings from damage caused by machinery. C. Ponderosa pine groups shall fill a



circle of at least 20-80 feet across. The groups shall be a variety of shapes and sizes but must always be separated with clearings. 5) Meadow Restoration Areas: A. Cut all piñon and juniper within the identified meadow perimeter. B. Cut all ponderosa pine except majestic ponderosa pine greater than 16 inches in diameter and greater than 25-feet in height. C. Avoid creating new roads of any kind in restored meadows. 6) If masticated material or chips are not used to cover roads, then hand constructed water bars shall be required on access roads where the grade is from 0 to 5% at intervals of 150 feet, where the grade is from 5% to 10% at intervals of 130 feet, where the grade is from 10% to 15% at intervals of 75 feet, and where the grade is from 15% to 40% at intervals of 50 feet.

REQUESTOR INFORMATION

Project Organization:

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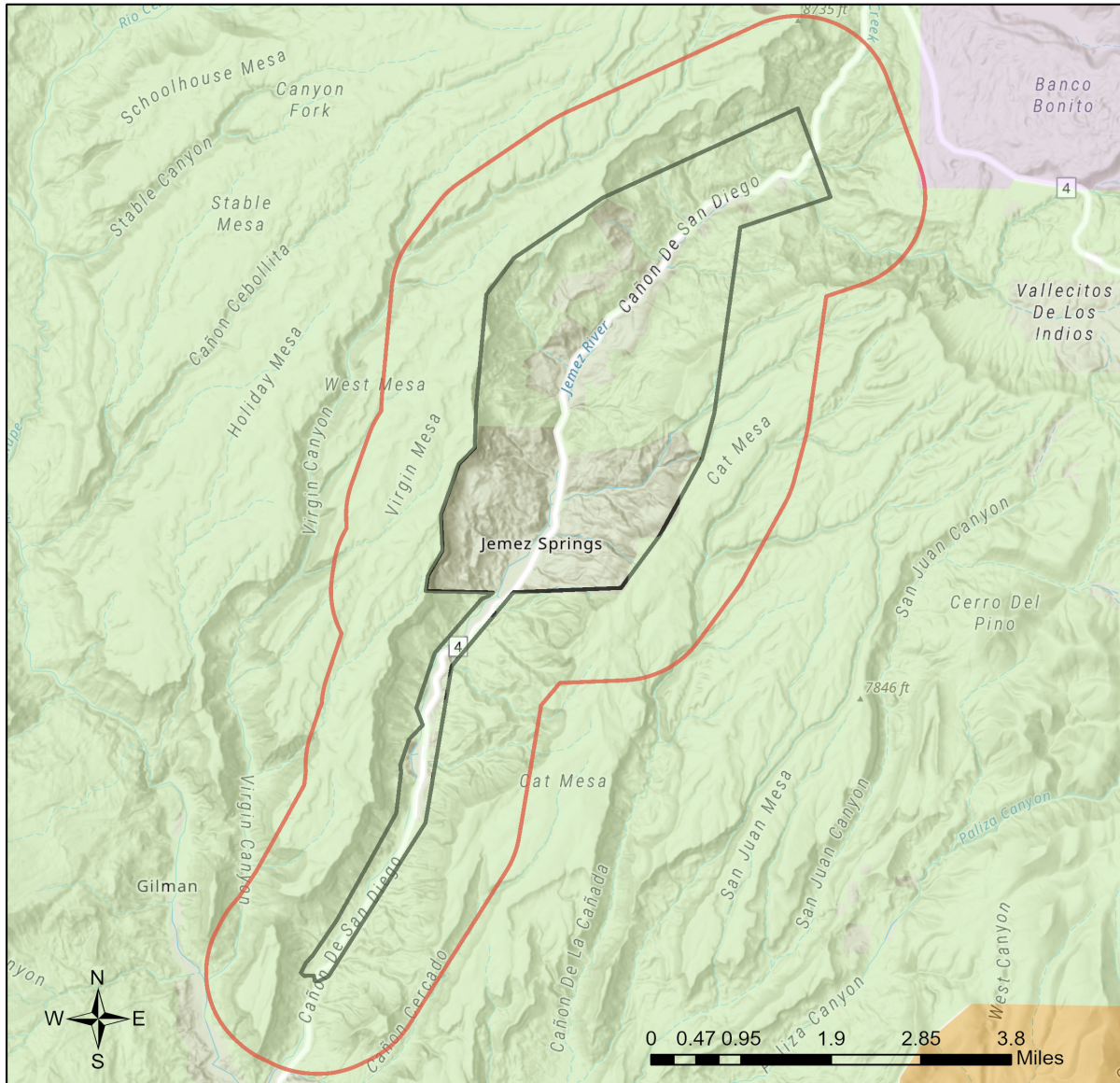
OVERALL STATUS

This report contains an initial list of recommendations regarding potential impacts to wildlife or wildlife habitats from the proposed project; see the Project Recommendations section below for further details. Your project proposal is being forwarded to a New Mexico Department of Game and Fish (Department) biologist for review to determine whether there are any additional recommendations regarding the proposed actions. A Department biologist will be in touch within 30 days if there are further recommendations regarding this project proposal.

About this report:

- This environmental review is based on the project description and location that was entered. The report must be updated if the project type, area, or operational components are modified.
- This is a preliminary environmental screening assessment and report. It is not a substitute for the potential wildlife knowledge gained by having a biologist conduct a field survey of the project area. Federal status and plant data are provided as a courtesy to users. The review is also not intended to replace consultation required under the federal Endangered Species Act (ESA), including impact analyses for federal resources from the U.S. Fish and Wildlife Service (USFWS) using their [Information for Planning and Consultation tool](#).
- This report contains information on wildlife species protected under the ESA and the [Wildlife Conservation Act \(WCA\)](#), [Species of Greatest Conservation Need \(SGCN\)](#), and Species of Economic and Recreational Importance (SERI). Species listed under the ESA are protected from take at the federal level and under the WCA are protected from take at the state level. SGCN are identified in the [State Wildlife Action Plan \(SWAP\) for New Mexico](#); all of these species are considered to be of conservation concern but not all of them are protected from take at the state or federal level. The harvest of all SERI is regulated at the state level. The Department has no authority to designate critical habitat for species listed under the WCA; only the USFWS can designate critical habitat for species listed under the ESA.
- The New Mexico Environmental Review Tool (ERT) utilizes species observation locations and species habitat suitability models, both of which are subject to ongoing change and refinement. Inclusion or omission of a species within a report cannot guarantee species presence or absence within your project area. To determine occurrence of any species listed in this report, or other wildlife that may be present within your project area, onsite surveys conducted by a qualified biologist during appropriate, species-specific survey timelines may be necessary.
- The Department encourages use of the ERT to modify proposed projects for avoidance, minimization, or mitigation of wildlife impacts. However, the ERT is not intended to be used in a repeatedly iterative fashion to adjust project attributes until a previously determined recommendation is generated. The ERT serves to assess impacts once project details are developed. The [New Mexico Crucial Habitat Assessment Tool](#), the data layers from which are included in the ERT, is the appropriate system for advising early-stage project planning and design to avoid areas of anticipated wildlife concerns and associated regulatory requirements.

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 Buffered Project Boundary	 NM State Forestry Division	 U.S. Army Corps of Engineers
 Project_Boundary	 NM State Parks	 U.S. Bureau of Reclamation
 Bureau of Land Management	 National Park Service	 U.S. Department of Agriculture
 City Land	 Other Federal Agency	 U.S. Fish and Wildlife Service
 County Land	 Other Federal Agency	 U.S. Forest Service
 Department of Defense	 State Land Office	 U.S. Natural Resources Conservation Service
 Department of Energy	 State of New Mexico	
 NM Department of Game & Fish	 Tribal Land	

NHNM, USGS, USFS, US Census Bureau, NMDGF
Esri, NASA, NGA, USGS
Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Special Status Animal Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Jemez Mountains Salamander	Plethodon neomexicanus	LE	E	SGCN			
Boreal Chorus Frog	Pseudacris maculata			SGCN			
Plains Leopard Frog	Lithobates blairi			SGCN			BLM WATCH
Peregrine Falcon	Falco peregrinus		T	SGCN			BLM WATCH
Mountain Plover	Charadrius montanus			SGCN	Sensitive Species		BLM WATCH
Flammulated Owl	Otus flammeolus			SGCN			BLM WATCH
Flammulated Owl	Psiloscops flammeolus			SGCN			BLM WATCH
Western Burrowing Owl	Athene cunicularia hypugaea			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Mexican Spotted Owl	Strix occidentalis lucida	LT		SGCN			
Common Nighthawk	Chordeiles minor			SGCN			
Black Swift	Cypseloides niger			SGCN		USFS R3 SCC	
Lewis's Woodpecker	Melanerpes lewis			SGCN		USFS R3 SCC	BLM WATCH
Red-Headed Woodpecker	Melanerpes erythrocephalus			SGCN			
Williamson's Sapsucker	Sphyrapicus thyroideus			SGCN			
Olive-Sided Flycatcher	Contopus cooperi			SGCN			
Bank Swallow	Riparia riparia			SGCN			
Pinyon Jay	Gymnorhinus cyanocephalus			SGCN		USFS R3 SCC	BLM SENSITIVE
Clark's Nutcracker	Nucifraga columbiana			SGCN			
Juniper Titmouse	Baeolophus ridgwayi			SGCN		USFS R3 SCC	BLM WATCH
Pygmy Nuthatch	Sitta pygmaea			SGCN			
Western Bluebird	Sialia mexicana			SGCN			
Mountain Bluebird	Sialia currucoides			SGCN			
Bendire's Thrasher	Toxostoma bendirei			SGCN		USFS R3 SCC	BLM SENSITIVE
Loggerhead Shrike	Lanius ludovicianus			SGCN		USFS R3 SCC	BLM WATCH

Special Status Animal Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Gray Vireo	Vireo vicinior		T	SGCN	Sensitive Species	USFS R3 SCC	BLM WATCH
Virginia's Warbler	Leiothlypis virginiae			SGCN			BLM SENSITIVE
Black-Throated Gray Warbler	Setophaga nigrescens			SGCN			BLM WATCH
Grace's Warbler	Setophaga graciae			SGCN		USFS R3 SCC	BLM WATCH
Chestnut-Collared Longspur	Calcarius ornatus			SGCN			BLM SENSITIVE
Cassin's Finch	Haemorhous cassinii			SGCN			BLM WATCH
Evening Grosbeak	Coccothraustes vespertinus			SGCN			
Rio Grande Cutthroat Trout	Oncorhynchus clarkii virginalis			SERI			
Rainbow Trout	Oncorhynchus mykiss			SERI			
Brown Trout	Salmo trutta			SERI			
Rio Grande Chub	Gila pandora			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Rio Grande Sucker	Catostomus plebeius			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Spotted Bat	Euderma maculatum		T	SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Pale Townsend's Big-Eared Bat	Corynorhinus townsendii pallescens			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
American Pika	Ochotona princeps			SGCN			
Gunnison's Prairie Dog	Cynomys gunnisoni			SGCN	Sensitive Species		BLM SENSITIVE
New Mexican Meadow Jumping Mouse	Zapus hudsonius luteus	LE	E	SGCN	Sensitive Species		BLM SENSITIVE
Black Bear	Ursus americanus			SERI			
Pacific Marten	Martes caurina		T	SGCN		USFS R3 SCC	
Mountain Lion	Puma concolor			SERI			
Elk	Cervus canadensis			SERI			

Special Status Animal Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Mule Deer	Odocoileus hemionus			SERI			

Common Name hyperlink takes you to species account in [bison-m.org](#); Scientific Name hyperlink takes you to information in [NatureServe Explorer](#); ESA = Endangered Species Act, C = Candidate, LE = Listed Endangered, LT = Listed Threatened, XN = Non-essential Experimental Population, for other ESA codes see this [website](#); WCA = Wildlife Conservation Act, E = Endangered, T = Threatened; SERI = Species of Economic and Recreational Importance; SGCN = Species of Greatest Conservation Need; USFS = U.S. Forest Service, Sensitive Species = A species likely to occur on USFS lands that is of concern for a potential reduction in population viability; SCC = Species of Conservation Concern; BLM = Bureau of Land Management, BLM SENSITIVE = A species that occurs on BLM lands and whose viability is at risk, BLM WATCH = Species that may be added to the sensitive species list in future pending new information regarding species status.

Special Status Plant Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMAC	NMRPCS	USFS	USFS SCC	BLM
Galisteo Sand Verbena	Abronia bigelovii			SS	Sensitive Species	USFS R3 SCC	BLM SENSITIVE

NMAC = New Mexico Administrative Code, E = Endangered; NMRPCS = [New Mexico Rare Plant Conservation Strategy](#), SS = NM Rare Plant Conservation Strategy Species; USFS = U.S. Forest Service, Sensitive Species = A species likely to occur on USFS lands that is of concern for a potential reduction in population viability; SCC = Species of Conservation Concern; BLM = Bureau of Land Management, BLM SENSITIVE = A species that occurs on BLM lands and whose viability is at risk, BLM WATCH = Species that may be added to the sensitive species list in future pending new information regarding species status.

Project Recommendations

Your proposed project activities may require a custom review for assessment of potential effects to wildlife. See the "OVERALL STATUS" section above to determine the likelihood that your project will be reviewed further based on its location. A Department biologist will confirm whether any additional conservation measures are needed. You should expect to receive any additional project recommendations within 30 days of your project submission. If the "OVERALL STATUS" section indicates that no further consultation with the Department is required based on its location, then you will only receive additional project feedback from the Department if a biologist deems it necessary.

All migratory birds are protected against direct take under the federal [Migratory Bird Treaty Act](#) (16 U.S.C. Sections 703-712), and hawks, falcons, vultures, owls, songbirds, and other insect-eating birds are protected under New Mexico State Statutes (17-2-13 and 17-2-14 NMSA), unless permitted by the applicable regulatory agency. To minimize the likelihood of adverse impacts to migratory birds, nests, eggs, or nestlings, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the primary migratory bird breeding season of April 15-September 1. Breeding season may begin earlier for raptors or when working in low-elevation habitats such as deserts. If ground disturbing and clearing activities must be conducted during the breeding season, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory) and avoid disturbing active nests until young have fledged. For active nests, establish adequate buffer zones to minimize disturbance to nesting birds. Buffer distances should be at least 100 feet from songbird and raven nests; 0.25 miles from most raptor nests; and 0.5 miles for ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos canadensis*), peregrine falcon (*Falco peregrinus*), and prairie falcon (*Falco mexicanus*) nests. Active nest sites in trees or shrubs that must be removed should be mitigated by qualified biologists or wildlife rehabilitators. Department biologists are available to consult on nest site mitigation and can facilitate contact with qualified personnel.

The list of [New Mexico SGCN](#) (see link, page 14, table 5) and the federal list of [Birds of Conservation Concern](#) should be reviewed to fully evaluate potential effects to migratory birds from your proposed project. Federal agencies are also required under Executive Order 13186 to implement standards and practices that lessen the amount of unintentional take attributable to agency actions. These conservation measures are strongly recommended to ensure persistence of migratory bird species whose populations are small and/or declining within New Mexico.

For forestry and forest restoration projects, including fire management activities, occurring in ponderosa pine forests, the Department recommends following the [Ponderosa Pine Restoration Guidelines to Benefit Wildlife](#).

It appears that the project area is adjacent to Pueblo/Reservation lands. The Department has no jurisdiction or authority for the wildlife resources on Indian reservations or property. We would recommend that you contact the Pueblo/Reservation regarding general wildlife issues or information they may have.

Your project could affect important components of habitat for large mammals, including important and sensitive seasonal areas, stopover sites, or movement corridors for elk, mule deer, or pronghorn. Mitigation measures should be implemented as appropriate in these high use sites and movement areas that were identified based on data gathered and analyzed by the New Mexico Department of Game and Fish (Department) and partners. Management recommendations within these areas may include the following (as relevant to the proposed project).

- Restrictions on noise-generating activities during wintering and calving/fawning seasons. These seasons are November 15-April 30 for wintering and May 15-June 30 for calving fawning in northern New Mexico; specific timing differs for southern New Mexico. These activities include oil and gas well pad development and operations that expose wildlife to loud noises from drilling, compressors, and pumping stations within 400 feet of the source.
- Avoid new fence construction where possible and modify unavoidable fences along high use areas to make them wildlife friendly and facilitate large animal movement. Where possible, divide larger fenced sites into smaller fenced areas with movement corridors in between.
- Avoid siting facilities within important habitats such as critical seasonal ranges or parturition sites.
- To minimize surface disturbance, implement directional drilling and co-locate drill holes on a single pad in the least suitable areas for wildlife.
- Avoid construction or development activities during important times, like parturition (May 15 – June 30 in northern New Mexico).
- Where feasible, coordinate with the Department on collection of pre- and post-construction observational or GPS collar data to quantify responses of big game herds to project implementation.

Burrowing owl (*Athene cunicularia*) may occur within your project area. Burrowing owls are protected from take by the Migratory Bird Treaty Act and under New Mexico state statute. Before any ground disturbing activities occur, the Department recommends that a preliminary burrowing owl survey be conducted by a qualified biologist using the Department's [Burrowing Owl Survey Protocol](#). Should burrowing owls be documented in the project area, please contact the Department or USFWS for further recommendations regarding relocation or avoidance of impacts.

Your project area intersects a Conservation Opportunity Area (COA) as identified in the [SWAP](#) for New Mexico. These areas contain high numbers of SGCN as identified in the SWAP and therefore represent areas where implementing conservation actions, including restoration projects intended to benefit wildlife, has higher potential to benefit a diversity of species. Within COAs, the Department encourages project proponents to consider (during project planning and design) and mitigate (during project implementation) potential adverse effects to non-federally listed SGCN and their habitats. State-listed and federally-listed species are protected from take by the New Mexico WCA and ESA, respectively, and migratory birds are protected from take by the Migratory Bird Treaty Act.

Your project area intersects designated critical habitat for one or more species that are listed under the federal ESA. The Department recommends that you confirm this using the USFWS's Information for Planning and Consultation (IPAC) system (<https://ipac.ecosphere.fws.gov/>) and then reach out to the appropriate species lead(s) with the [New Mexico Ecological Services Office of USFWS](#). The USFWS has authority to designate critical habitat for species listed under the ESA. The Department has no authority to designate critical habitat for species listed under the WCA or ESA. If there are any federally-listed plants within your project area and your project has a federal nexus, you may find these recommendations from the USFWS useful: [Recommendations for Endangered Species Act Section 7 Consultations Involving Plants in New Mexico](#); [Standards for Conducting and Reporting Consultation Surveys for Federally-Listed, Proposed, and Candidate Plants in New Mexico](#).

The proposed project occurs near an important bat area. This area may contain important bat roosting resources, such as caves or mines, that potentially could be affected by certain project activities. Follow the guidelines below to minimize disturbance to roosting bats.

- Avoid use of pesticides, firearms, open-flame torches, or heavy smoke-producing equipment, especially from April through September.
- If artificial lighting is needed, use only light sources powered by batteries, or cyalume glow/light sticks. Keep the site clean by picking up refuse or materials from project lighting or operations whenever they are shut down.
- If the use of permanent outdoor lights cannot be avoided, design all outdoor lighting in accordance with the New Mexico Night Sky Protection Act, which requires that outdoor lighting be fitted with shielding that directs light downward, rather than upward or laterally, to prevent sky glow and associated impacts to bats.
- For any surface disturbing activities, the project footprint (including a 350 foot buffer) should avoid potential roost sites such as caves or mines, especially from April through July. Tree clearing activities and prescribed burns should include a minimum 0.5 miles buffer from any such features.
- If caves, mines, bridges, or other man-made structure suitable as potential bat roosts are encountered within the project area, they should not be entered during any time of year, and no roosting or hibernating bats should be contacted or disturbed. Report any dead or injured bats to the Department, which can facilitate contacts with other appropriate personnel.

Your project area intersects an Important Plant Area (IPA) that contains one or more species of plants listed as threatened or endangered by the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) under New Mexico Statutes Annotated (NMSA) 75-6-1 or by the USFWS under the federal ESA. Although IPAs have no legal designation, they have been identified as areas that support either a high diversity of sensitive plant species or contain the last remaining locations of New Mexico's most endangered plants. The Department recommends that you consult with EMNRD's [Endangered Plant Program Coordinator](#) regarding any state-listed plants and the USFWS's [Information for Planning and Consultation \(IPAC\)](#) system for any federally-listed plants and reaching out to the appropriate federal species lead(s) with the [New Mexico Ecological Services Office of USFWS](#). The Department does not have any authority to designate or advise on state- or federally-listed plants.

Prairie dog colonies may occur within the vicinity of your project area. Both black-tailed prairie dogs (*Cynomys ludovicianus*) and Gunnison's prairie dogs (*Cynomys gunnisoni*) are designated as New Mexico SGCN, and their colonies provide important habitat for other grassland wildlife. Wherever possible, occupied prairie dog colonies should be left undisturbed, and all project activities should be directed off the colony. Any burrows that are located on the project site should be surveyed by a qualified biologist to determine whether burrows are active or inactive and whether burrowing owls may be utilizing the site. Colonies within the range of the black-tailed prairie dog can be surveyed by a qualified biologist diurnally, year-round using binoculars. Colonies within the range of the Gunnison's prairie dog can be surveyed by a qualified biologist diurnally, using binoculars during the warmer months from April through October and by searching for fairly fresh scat and lack of cobwebs or debris at the mouths of burrows during the cold months (November through March). If ground-disturbing activities cannot be relocated off the prairie dog colony, or if project activities involve control of prairie dogs, the Department recommends live-trapping and relocation of prairie dogs. The Department can provide recommendations regarding suitability of potential translocation areas and procedures.

The proposed project occurs within or near a riparian area. Because riparian areas are important wildlife habitats, the project footprint should avoid removing any riparian vegetation or creating ground disturbance either directly within or affecting the riparian area, unless the project is intended to restore riparian habitat through non-native plant removal and replanting with native species. If your project involves removal of non-native riparian trees or planting of native riparian vegetation, please refer to the Department's habitat handbook guideline for [Restoration and Management of Native and Non-native Trees in Southwestern Riparian Ecosystems](#). The [New Mexico Riparian Habitat Map \(NMRipMap\)](#) may also provide useful information on local riparian habitat composition and structure.

Your proposed project occurs within an area where springs or other important natural water features occur. This may result in the presence of a high use area for wildlife relative to the surrounding landscape. To ensure continued function of these important wildlife habitats, your project should consider measures to avoid the following.

- Altering surface or groundwater flow or hydrology,
- Disturbance to soil that modifies geomorphic properties or facilitates invasion of non-native vegetation.
- Affecting local surface or groundwater quality.
- Creating disturbance to wildlife utilizing these water features. Disturbance to wildlife can be reduced through practices including clustering infrastructure and activity wherever possible, avoiding large visual obstructions around water features, and limiting nighttime project operations or activities.

Department biologists are available for site-specific consultation regarding measures to assist with management and conservation of these habitat resources.

Disclaimers regarding recommendations:

- The Department provides technical guidance to support the persistence of all protected species of native fish and wildlife, including game and nongame wildlife species. Species listed within this report include those that have been documented to occur within the project area, and others that may not have been documented but are projected to occur within the project vicinity.
- Recommendations are provided by the Department under the authority of § 17-1-5.1 New Mexico Statutes Annotated 1978, to provide "communication and consultation with federal and other state agencies, local governments and communities, private organizations and affected interests responsible for habitat, wilderness, recreation, water quality and environmental protection to ensure comprehensive conservation services for hunters, anglers and nonconsumptive wildlife users".
- The Department has no authority for management of plants or Important Plant Areas. The [New Mexico Endangered Plant Program](#), under the Energy, Minerals, and Natural Resources Department's Forestry Division, identifies and develops conservation measures necessary to ensure the survival of plant species within New Mexico. Plant status information is provided within this report as a courtesy to users. Recommendations provided within the ERT may not be sufficient to preclude impacts to rare or sensitive plants, unless conservation measures are identified in coordination with the Endangered Plant Program.
- Additional coordination and/or consultation may also be necessary under the federal ESA or National Environmental Policy Act (NEPA). Further site-specific mitigation recommendations may be proposed during ESA consultation and/or NEPA analyses or through coordination with affected federal agencies.