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## PROJECT INFORMATION

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**Project Title:** Solar PEIS 1 W of Carlsbad  
**Project Type:** WILDLIFE CONNECTIVITY  
**Latitude/Longitude (DMS):** 32.411241 / -104.348533  
**County(s):** EDDY  
**Project Description:** BLM solar PEIS review

## REQUESTOR INFORMATION

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**Project Organization:**  
**Contact Name:** Brian Nowicki  
**Email Address:** bnowicki@biologicaldiversity.org  
**Organization:** Center for Biological Diversity  
**Address:** P.O. Box 1178, Flagstaff AZ 86002  
**Phone:** 5059175611

## OVERALL STATUS

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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.



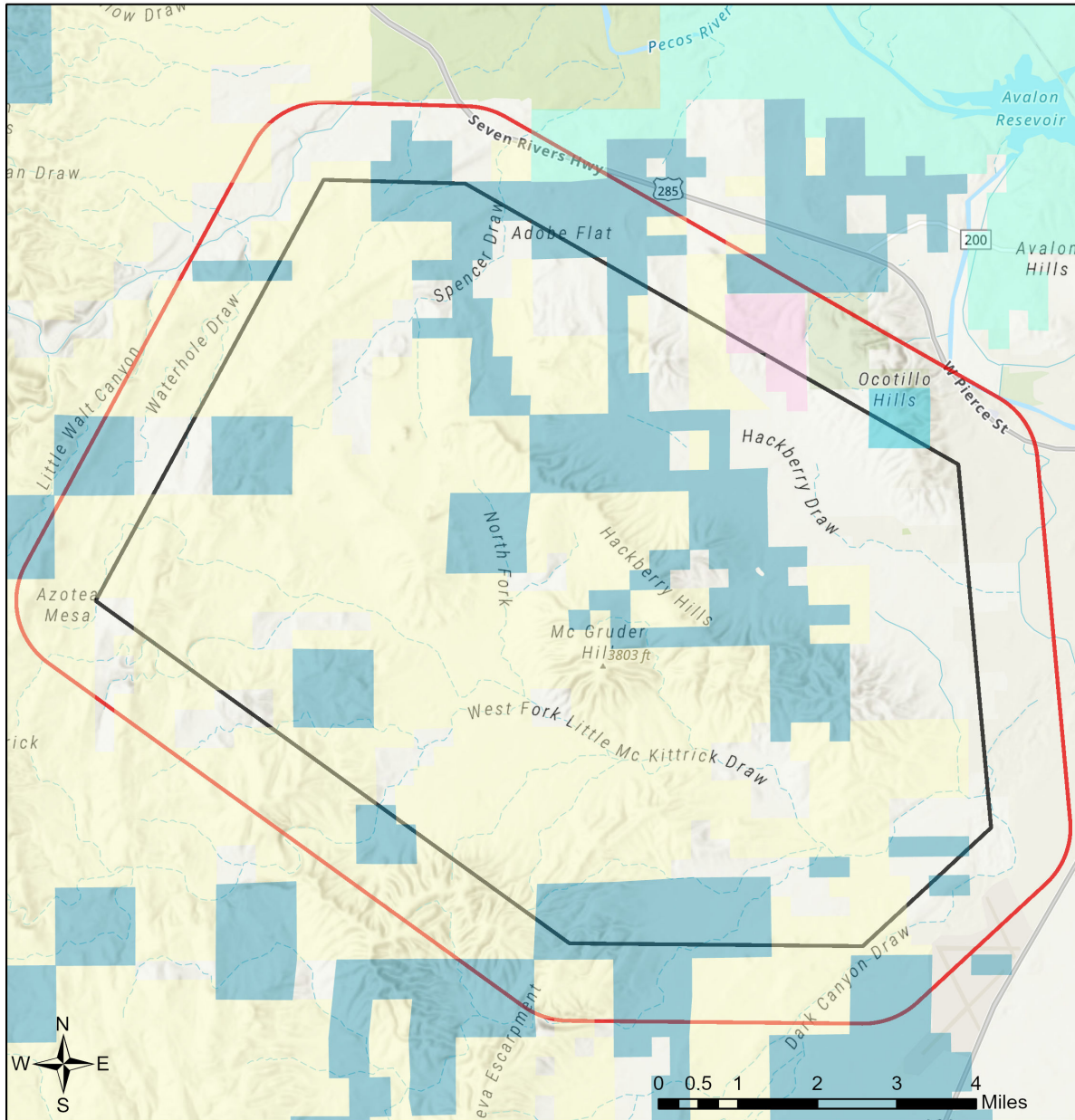
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### About this report:

- 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.



## Solar PEIS 1 W of Carlsbad



NHNM, USGS, USFS, US Census Bureau, NMDGF  
Esri, NASA, NGA, USGS  
Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, 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
<a href="#">Boreal Chorus Frog</a>	<a href="#">Pseudacris maculata</a>			SGCN			
<a href="#">Barking Frog</a>	<a href="#">Craugastor augusti</a>			SGCN			
<a href="#">Rio Grande Leopard Frog</a>	<a href="#">Lithobates berlandieri</a>			SGCN			
<a href="#">Fared Grebe</a>	<a href="#">Podiceps nigricollis</a>			SGCN			
<a href="#">Clark's Grebe</a>	<a href="#">Aechmophorus clarkii</a>			SGCN			
<a href="#">Brown Pelican</a>	<a href="#">Pelecanus occidentalis</a>		E	SGCN			
<a href="#">American Bittern</a>	<a href="#">Botaurus lentiginosus</a>			SGCN			BLM WATCH
<a href="#">Bald Eagle</a>	<a href="#">Haliaeetus leucocephalus</a>		T	SGCN	Sensitive Species		BLM SENSITIVE
<a href="#">Aplomado Falcon</a>	<a href="#">Falco femoralis</a>		E	SGCN			
<a href="#">Peregrine Falcon</a>	<a href="#">Falco peregrinus</a>		T	SGCN			BLM WATCH
<a href="#">Snowy Plover</a>	<a href="#">Charadrius nivosus nivosus</a>			SGCN			
<a href="#">Mountain Plover</a>	<a href="#">Charadrius montanus</a>			SGCN	Sensitive Species		BLM WATCH
<a href="#">Least Tern</a>	<a href="#">Sternula antillarum</a>	LE	E	SGCN			
<a href="#">Yellow-Billed Cuckoo</a>	<a href="#">Coccyzus americanus</a>	LT		SGCN			
<a href="#">Elf Owl</a>	<a href="#">Micrathene whitneyi</a>			SGCN			BLM WATCH
<a href="#">Western Burrowing Owl</a>	<a href="#">Athene cucularia hypugaea</a>			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
<a href="#">Common Nighthawk</a>	<a href="#">Chordeiles minor</a>			SGCN			
<a href="#">Lewis's Woodpecker</a>	<a href="#">Melanerpes lewis</a>			SGCN		USFS R3 SCC	BLM WATCH
<a href="#">Williamson's Sapsucker</a>	<a href="#">Sphyrapicus thyroideus</a>			SGCN			
<a href="#">Bank Swallow</a>	<a href="#">Riparia riparia</a>			SGCN			
<a href="#">Pinyon Jay</a>	<a href="#">Gymnorhinus cyanocephalus</a>			SGCN		USFS R3 SCC	BLM SENSITIVE
<a href="#">Juniper Titmouse</a>	<a href="#">Baeolophus ridgwayi</a>			SGCN		USFS R3 SCC	BLM WATCH
<a href="#">Pygmy Nuthatch</a>	<a href="#">Sitta pygmaea</a>			SGCN			
<a href="#">Western Bluebird</a>	<a href="#">Sialia mexicana</a>			SGCN			
<a href="#">Mountain Bluebird</a>	<a href="#">Sialia currucoides</a>			SGCN			



**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
<a href="#">Sprague's Pipit</a>	<a href="#">Anthus spragueii</a>			SGCN			BLM SENSITIVE
<a href="#">Loggerhead Shrike</a>	<a href="#">Lanius ludovicianus</a>			SGCN		USFS R3 SCC	BLM WATCH
<a href="#">Bell's Vireo</a>	<a href="#">Vireo bellii</a>		T	SGCN			BLM SENSITIVE
<a href="#">Gray Vireo</a>	<a href="#">Vireo vicinior</a>		T	SGCN	Sensitive Species	USFS R3 SCC	BLM WATCH
<a href="#">Varied Bunting</a>	<a href="#">Passerina versicolor</a>		T	SGCN	Sensitive Species		
<a href="#">Vesper Sparrow</a>	<a href="#">Pooecetes gramineus</a>			SGCN			
<a href="#">Thick-billed Longspur</a>	<a href="#">Rhynchophanes mccownii</a>			SGCN			BLM SENSITIVE
<a href="#">Chestnut-Collared Longspur</a>	<a href="#">Calcarius ornatus</a>			SGCN			BLM SENSITIVE
<a href="#">Cassin's Finch</a>	<a href="#">Haemorhous cassinii</a>			SGCN			BLM WATCH
<a href="#">Least Shrew</a>	<a href="#">Cryptotis parva</a>		T	SGCN			BLM WATCH
<a href="#">Pale Townsend's Big-Eared Bat</a>	<a href="#">Corynorhinus townsendii pallescens</a>			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
<a href="#">Black-Tailed Prairie Dog</a>	<a href="#">Cynomys ludovicianus</a>			SGCN	Sensitive Species		BLM SENSITIVE
<a href="#">Mule Deer</a>	<a href="#">Odocoileus hemionus</a>			SERI			
<a href="#">Pronghorn</a>	<a href="#">Antilocapra americana</a>			SERI			
<a href="#">Western River Cooter</a>	<a href="#">Pseudemys gorzugi</a>		T	SGCN			BLM SENSITIVE
<a href="#">Gray-Checkered Whiptail</a>	<a href="#">Aspidoscelis tessellata</a>		E	SGCN			BLM SENSITIVE
<a href="#">Gray-Banded Kingsnake</a>	<a href="#">Lampropeltis alterna</a>		E	SGCN			BLM WATCH
<a href="#">Plainbelly Water Snake</a>	<a href="#">Nerodia erythrogaster</a>		E	SGCN			
<a href="#">Western Ribbon Snake</a>	<a href="#">Thamnophis proximus</a>		T	SGCN	Sensitive Species		
<a href="#">Rock Rattlesnake</a>	<a href="#">Crotalus lepidus</a>			SGCN			
<a href="#">Desert Massasauga</a>	<a href="#">Sistrurus catenatus edwardsii</a>			SGCN			



**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
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Common Name hyperlink takes you to species account in [bison-m.org](http://bison-m.org); Scientific Name hyperlink takes you to information in [NatureServe Explorer](http://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](http://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
<a href="#">Wright's Water-Willow</a>	<a href="#">Justicia wrightii</a>			SS			BLM SENSITIVE
<a href="#">Scheer's Pincushion Cactus</a>	<a href="#">Coryphantha robustispina ssp. scheeri</a>		E	SS			BLM SENSITIVE
<a href="#">Gypsogenus Ringstem</a>	<a href="#">Anulocaulis leiosolenus var. gypsogenus</a>						BLM WATCH

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.



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## 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.

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.

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.
- 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 mile 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, who 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.

Your project is on or near a section of road that has experienced comparatively high incidence of wildlife-vehicle collisions. Coordinate with the New Mexico Department of Transportation to consider implementing mitigation actions that are appropriate to your project area and planned action to reduce wildlife-vehicle collisions. These may include but are not limited to: installation of wildlife-proof fencing; installation of wildlife passages such as arch culverts or overpasses; and installation of animal detection systems.





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Your project could affect important components of wildlife habitat, including fawning/calving or wintering areas for species such as deer and elk, or general high wildlife movement and activity areas for large mammals. Mitigation measures should focus on high use sites and movement areas based on collar data and expert knowledge of Department and land management agency personnel. Management recommendations within these areas may include the following.

- Restrictions on noise-generating activities during wintering and calving/fawning seasons, specific timing of which may vary throughout the state. These activities would 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.
- Modifying fences along high use areas to make them wildlife friendly and facilitate large animal movement.

**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.