



PROJECT INFORMATION

Project Title: Caballo Solar
Project Type: ENERGY DEVELOPMENT, SOLAR
Latitude/Longitude (DMS): 33.033677 / -107.423758
County(s): SIERRA
Project Description: Corresponding LLC: Caballo Solar LLC • 10 miles Southwest of Truth or Consequences, NM • Physical Parameters: • Study Area is approximately 2,571 acres • Site address: in the area of Interstate-25 and New Mexico State Road 162 • Public Land Survey System: Portions of Sections 34-36 of Township 14S, Range 6W AND Portions of Section 1, ALL Section 2, & Portions of Sections 3, 10-12 of Township 15S, Range 6W of the New Mexico P.M. - Reception 11190 and APN 3033083195131; Reception 11195 and APN 3034087181118 • Google Earth KMZ file attached as: Caballo Solar Study Area • Google Earth KMZ file of gen-tie attached as: N/A (gen-tie is within the Study Area)

REQUESTOR INFORMATION

Project Organization:
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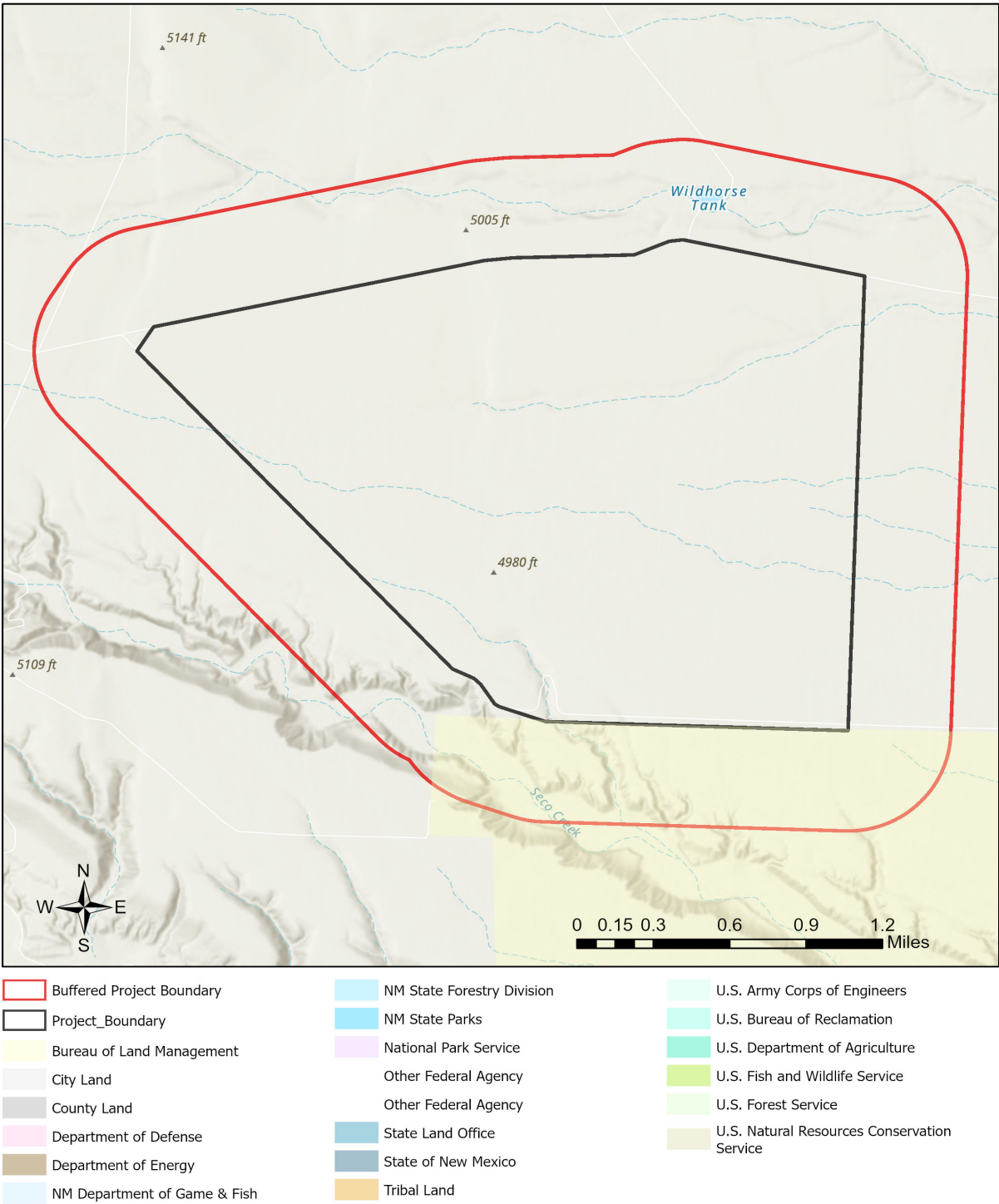
OVERALL STATUS

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.

Caballo Solar



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

Special Status Animal Species Potentially within 650 Meters of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Barking Frog	Craugastor augusti			SGCN			
Plains Leopard Frog	Lithobates blairi			SGCN			BLM WATCH
Chiricahua Leopard Frog	Lithobates chiricahuensis	LT		SGCN	Sensitive Species		
Northern Leopard Frog	Lithobates pipiens			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Eared Grebe	Podiceps nigricollis			SGCN			
Clark's Grebe	Aechmophorus clarkii			SGCN			
Neotropic Cormorant	Phalacrocorax brasilianus		T	SGCN			
American Bittern	Botaurus lentiginosus			SGCN			BLM WATCH
Aplomado Falcon	Falco femoralis		E	SGCN			
Peregrine Falcon	Falco peregrinus		T	SGCN			BLM WATCH
Snowy Plover	Charadrius nivosus nivosus			SGCN			
Elf Owl	Micrathene whitneyi			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			
Lewis's Woodpecker	Melanerpes lewis			SGCN		USFS R3 SCC	BLM WATCH
Bank Swallow	Riparia riparia			SGCN			
Pinyon Jay	Gymnorhinus cyanocephalus			SGCN		USFS R3 SCC	BLM SENSITIVE
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
Sprague's Pipit	Anthus spragueii			SGCN			BLM SENSITIVE
Loggerhead Shrike	Lanius ludovicianus			SGCN		USFS R3 SCC	BLM WATCH

Special Status Animal Species Potentially within 650 Meters 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
Lucy's Warbler	Leiothlypis luciae			SGCN			BLM WATCH
Black-Throated Gray Warbler	Setophaga nigrescens			SGCN			BLM WATCH
Black-Chinned Sparrow	Spizella atrogularis			SGCN			BLM WATCH
Vesper Sparrow	Poocetes gramineus			SGCN			
Thick-billed Longspur	Rhynchophanes mccownii			SGCN			BLM SENSITIVE
Chestnut-Collared Longspur	Calcarius ornatus			SGCN			BLM SENSITIVE
Evening Grosbeak	Coccothraustes vespertinus			SGCN			
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
Mountain Lion	Puma concolor			SGCN			
Elk	Cervus canadensis			SGCN			
Mule Deer	Odocoileus hemionus			SGCN			
Pronghorn	Antilocapra americana			SGCN			
Big Bend Slider	Trachemys gaigeae			SGCN			BLM SENSITIVE
Rock Rattlesnake	Crotalus lepidus			SGCN			
Desert Massasauga	Sistrurus catenatus edwardsii			SGCN			

Common Name hyperlink takes you to species account in [bison-m.org](https://www.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.

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.

Grading or blading within the proposed solar project area should be minimized to the greatest extent possible. Minimize soil compaction by ensuring that heavy equipment has rubber tires and tracks and avoid the use of "drive and crush", "disc and roll", and other similar techniques. Whenever feasible, retain 60-70% native vegetation within the project area. This will help retain wildlife habitat features within the site and preserve existing vegetation and soil structure. Keeping the existing soil and root structures intact also helps to maximize water infiltration, minimize erosional run-off, and reduce biodiversity loss within the site. Security perimeter fencing around the solar facility should be constructed to allow for some wildlife permeability. Leaving a 6 to 8 inch gap between the ground surface and bottom of the fence will allow smaller terrestrial wildlife species to move freely through the area and make use of any suitable habitat within the solar facility. Retain patches of undisturbed habitat within and adjacent to the project area and connect these patches with a minimum of 300 feet wide, unfenced corridors. For large solar arrays, optimally include a 300 feet wide corridor for every mile of fence and keep corridors as short as possible. Angle fencing at perimeter and corridor corners to facilitate animal movement around the project area.

To protect important and sensitive wildlife habitats, place solar arrays at least 200 feet from the edges of desert washes and build in previously disturbed or developed areas whenever possible. To minimize potential for fenced areas to drive animals onto roadways, place fenced areas at least 300 feet from roadways that don't have wildlife-proof fencing. In the event that development must encompass desert washes, ensure that fences do not cross these washes and fragment this sensitive habitat.

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. This season runs from 15 April - 1 September for upland songbirds, willow flycatcher (*Empidonax traillii*), yellow-billed cuckoo (*Coccyzus americanus*), and other riparian songbirds; 1 March - 1 September for most raptors; 1 January - 15 July for golden eagle (*Aquila chysaetos canadensis*) and great horned owl (*Bubo virginianus*); and 1 March - 15 September for low-elevation 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, 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.

For post-construction reclamation of the solar project area, the Department recommends that the project proponent use only native plant species and that the reclamation seed mix is designed to enhance local pollinator habitat. The Department also recommends that only certified weed-free seed be used to avoid inadvertently introducing non-native species to the reclamation site. Any alternate plant species, used to substitute for primary plant species that are unavailable at the time of reclamation, should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site and suggests including seeds from a region that represents potential future climatic conditions at the site.

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 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.

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.