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## PROJECT INFORMATION

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**Project Title:** Incarnation  
**Project Type:** COMMUNICATIONS, TOWERS (CELLULAR AND OTHER), CELL TOWERS 200 FT OR HIGHER, SUPPORT WIRES OR ON UNDISTURBED GROUND  
**Latitude/Longitude (DMS):** 35.298429 / -106.596594  
**County(s):** SANDOVAL  
**Project Description:** New cell tower to be installed.

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## REQUESTOR INFORMATION

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**Project Organization:**  
**Contact Name:** Alexandra Brunet Giambalvo  
**Email Address:** aebrunetgiambalvo@terracon.com  
**Organization:** Terracon  
**Address:** 4685 S Ash Ave #4, Tempe AZ 85202  
**Phone:** (480) 897-8200

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## OVERALL STATUS

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The information contained within this report comprises the recommendations of the New Mexico Department of Game and Fish (Department) for management and mitigation of proposed project impacts to wildlife and habitat resources; see the Project Recommendations section below for further details. No further consultation with the Department is required based on the project's location and, with implementation of mitigation measures described in the Project Recommendations section below, no adverse effects to wildlife or important habitats are anticipated. However, a Department biologist may be in touch within 30 days if they determine that further review is required.

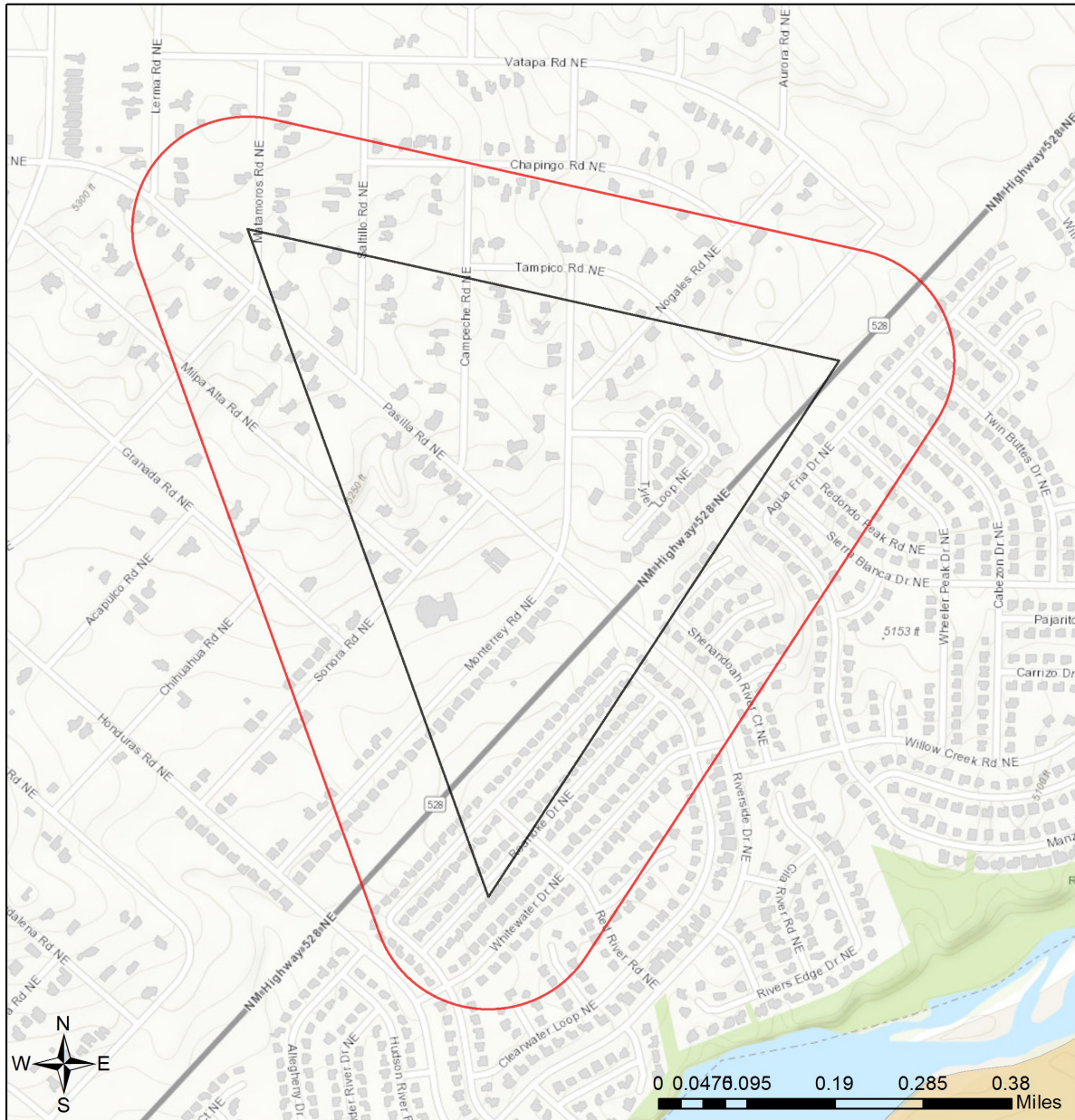
### About this report:

- 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](#).
- The New Mexico Environmental Review Tool (ERT) utilizes species observation locations and species distribution models, both of which are subject to ongoing change and refinement. Inclusion or omission of a species within a report can not guarantee species presence or absence at a precise point location, as might be indicated through comprehensive biological surveys. Specific questions regarding the potential for adverse impacts to vulnerable wildlife populations or habitats, especially in areas with a limited history of biological surveys, may require further on-site assessments.
- 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](#) is the appropriate system for advising early-stage project planning and design to avoid areas of anticipated wildlife concerns and associated regulatory requirements.





# Incarnation



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|------------------------------|------------------------------|---|
| Project Boundary             | NM Department of Game & Fish | U.S. Army Corps of Engineers                |
| Buffered Project Boundary    | NM State Forestry Division   | U.S. Bureau of Reclamation                  |
| <b>NM_Ownership_20210316</b> |                              |   |
| Bureau of Land Management    | NM State Parks               | U.S. Department of Agriculture              |
| City Land                    | National Park Service        | U.S. Fish and Wildlife Service              |
| County Land                  | Private                      | U.S. Forest Service                         |
| Department of Defense        | State Land Office            | U.S. Natural Resources Conservation Service |
| Department of Energy         | State of New Mexico          |   |
|                              | Tribal Land                  |   |

USGS, New Mexico Department of Game and Fish (NMDGF), Natural Heritage New Mexico (NHNM), and USDA Forest Service, Esri, HERE, DeLorme, Mapbox, Microsoft, Swire, UNIC, U.S. Government, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



### Special Status Animal Species within 200 Meters of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI
<a href="#">Northern Leopard Frog</a>	<a href="#">Lithobates pipiens</a>			SGCN
<a href="#">Eared Grebe</a>	<a href="#">Podiceps nigricollis</a>			SGCN
<a href="#">American Bittern</a>	<a href="#">Botaurus lentiginosus</a>			SGCN
<a href="#">Bald Eagle</a>	<a href="#">Haliaeetus leucocephalus</a>		T	SGCN
<a href="#">Aplomado Falcon</a>	<a href="#">Falco femoralis</a>		E	SGCN
<a href="#">Peregrine Falcon</a>	<a href="#">Falco peregrinus</a>		T	SGCN
<a href="#">Mountain Plover</a>	<a href="#">Charadrius montanus</a>			SGCN
<a href="#">Elf Owl</a>	<a href="#">Micrathene whitneyi</a>			SGCN
<a href="#">Lewis's Woodpecker</a>	<a href="#">Melanerpes lewis</a>			SGCN
<a href="#">Red-Headed Woodpecker</a>	<a href="#">Melanerpes erythrocephalus</a>			SGCN
<a href="#">Olive-Sided Flycatcher</a>	<a href="#">Contopus cooperi</a>			SGCN
<a href="#">Bank Swallow</a>	<a href="#">Riparia riparia</a>			SGCN
<a href="#">Pinyon Jay</a>	<a href="#">Gymnorhinus cyanocephalus</a>			SGCN
<a href="#">Pygmy Nuthatch</a>	<a href="#">Sitta pygmaea</a>			SGCN
<a href="#">Bendire's Thrasher</a>	<a href="#">Toxostoma bendirei</a>			SGCN
<a href="#">Loggerhead Shrike</a>	<a href="#">Lanius ludovicianus</a>			SGCN
<a href="#">Gray Vireo</a>	<a href="#">Vireo vicinior</a>		T	SGCN
<a href="#">Painted Redstart</a>	<a href="#">Myioborus pictus</a>			SGCN
<a href="#">Spotted Bat</a>	<a href="#">Euderma maculatum</a>		T	SGCN
<a href="#">Black-Tailed Prairie Dog</a>	<a href="#">Cynomys ludovicianus</a>			SGCN
<a href="#">Gunnison's Prairie Dog</a>	<a href="#">Cynomys gunnisoni</a>			SGCN
<a href="#">Cougar</a>	<a href="#">Puma concolor</a>			SERI

ESA = Endangered Species Act, WCA = Wildlife Conservation Act, SGCN = Species of Greatest Conservation Need, SERI = Species of Economic and Recreational Importance

### Project Recommendations

Because of the potential for communications towers to cause significant impacts to night-migrating migratory bird populations, we submit the following recommendations:

- We recommend co-locating communications equipment, antennas, etc. on existing towers or buildings (e.g. water towers), or within existing groups of towers or "antenna farms", if feasible.
- Research has shown that lights on towers attract night-migrating birds, and can cause large mortality events when birds strike the tower or guy cables. It is our understanding that towers taller than 200 feet (61 m) above ground level (AGL) are required by the Federal Aviation Administration (FAA) to have lighting for aircraft safety. Therefore, if construction of new towers is required, we recommend that they be less than 200 feet AGL, if possible, so lighting is not necessary.
- Research has also shown that solid or pulsating red lights attract night-migrating birds at a much higher rate than white strobe lights. Therefore, where permissible by FAA and local zoning regulations, we recommend that white strobe lights be used and solid or pulsating red incandescent warning lights be avoided. Also, the minimum amount of lighting required by the FAA should be used, with minimum intensity and number of flashes



per minute (i.e., the longest duration between flashes, currently three seconds) allowed by the FAA.

- To the extent possible, construction techniques should be used which do not require guy wires, as these components are thought to be a primary cause of tower-caused bird mortality. More acceptable construction techniques include using a lattice structure or a monopole.
- If possible, towers should not be located in or near wetlands, riparian areas, playas, lakes, or other known bird concentration areas (e.g., state or federal waterfowl refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered bird species that could be prone to tower-caused mortality (i.e. night-migrating species). If location near or within one of these areas is deemed necessary, the Department requests the opportunity for additional consultation.
- Local meteorological conditions should be reviewed, and areas with an especially high incidence of fog, mist, and low cloud ceilings should be avoided, if possible.
- Towers using guy wires for support constructed in known raptor, waterfowl or shorebird concentration areas, stopover sites, daily movement or migratory routes, should install daytime visual markers (i.e., bird diverter devices) on the guy wires to prevent collisions by diurnally active bird species. (For guidance on markers, see *Avian Power Line Interaction Committee, 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute, Washington, D.C., 78 pp*, and *Avian Power Line Interaction Committee, 1996. Suggested Practices for Raptor Protection on Power Lines. Edison Electric Institute/Raptor Research Foundation, Washington, D.C., 128 pp*. Copies can be obtained by calling 1-800/334-5453).
- If significant numbers of breeding, feeding, or roosting birds are known to habitually use a proposed tower construction site, relocation to an alternate site is recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during nesting (i.e., not during spring and summer).
- If possible, new towers should be designed structurally and electrically to accommodate the applicant's antenna(s), and comparable antennas for at least two additional users, to reduce the number of future towers, unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.
- Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site and minimize its potential attraction for birds.
- Tower construction, including road access and fencing, should be implemented to minimize habitat loss and fragmentation, and to reduce above-ground obstacles that might impact birds in flight. A larger tower footprint, however, is preferable to construction of a guy-supported tower.
- If constructing multiple towers, project proponents should consider the cumulative impacts of all of those towers on migratory birds, as well as the impacts of each individual tower.
- Towers no longer in use or determined to be obsolete should be removed within 12 months of the cessation of use.

See [Communication Tower Project Guidelines USFWS](#) for more information.

Burrowing owl is known to occur within or near your project area. Before any ground disturbing activities occur, the Department recommends that a preliminary survey be conducted between April and September, 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.





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 need, 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 New Mexico Department of Game and Fish, who can facilitate contacts with other appropriate personnel.

**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 may also be necessary under the federal ESA or National Environmental Policy Act (NEPA). Further site-specific recommendations may be proposed during ESA and/or NEPA analyses, or through coordination with affected federal agencies.