WATER INFRASTRUCTURE FINANCE AUTHORITY OF ARIZONA

DRAFT ENVIRONMENTAL INFORMATION DOCUMENT

ESCUDILLA MOUNTAIN DOMESTIC WATER IMPROVEMENT DISTRICT STANDPIPE PROJECT

(DW-038-2025)

Prepared for

Water Infrastructure Finance Authority of Arizona
3300 N. Central Ave.
Suite 1050
Phoenix, AZ 85012

Prepared by

SWCA Environmental Consultants
1750 S Woodlands Village Blvd
Suite 200
Flagstaff, Arizona 86001
www.swca.com

December 2024

CONTENTS

Appendices

Figures

Tables

1 PROJECT DESCRIPTION AND NEED

1.1 PROJECT DESCRIPTION

The Escudilla Mountain Domestic Water Improvement District (EMDWID) encompasses approximately 496 acres of privately-owned land within Section 31, Township 7 North, Range 30 East, Gila and Salt River Baseline and Meridian. The EMDWID serves a portion of the unincorporated community of Nutrioso, located in Apache County, Arizona (see Figure 1). The 76 properties within the EMDWID include a mix of vacant parcels, unimproved parcels used for camping, and developed parcels used by both full-time and seasonal residents. Current water demand is estimated at 310,000 gallons/year, with a projected future demand estimated at up to 3,467,500 gallons/year. Currently, there are no municipal water services within the EMDWID, and residents must either source water from private wells or haul water in from other areas. The proposed project includes equipping of an existing well and installation of approximately 0.43 miles (2,270 linear feet) of waterline and a standpipe to provide a local domestic water source for residents within the EMDWID.

The existing well (Well #55-565311), located on approximately 0.06 acres of EMDWID-owned land (Apache County Parcel #102-64-080) east of Nutrioso Creek (see Figure 2), was originally drilled in 1997 as an exempt well for domestic purposes but never put into production. Current production of this well averages 18.65 gallons/minute. The proposed project would install a perimeter chain link fence and equip the well with a pump, filtration system, and power source. Power would be generated either on-site via installation of solar panels, or via interconnection with an adjacent electrical distribution line. Construction vehicles and equipment would access the well site from United States Highway 191 (US 191) through the privately-owned Apache County Parcel # 102-45-002E via existing unimproved private roads. Construction of the perimeter fence may temporarily disturb the area up to 20 feet around the well parcel.

The standpipe would be located on up to 0.15 acres of the southeastern portion of a 3.75-acre private parcel (Apache County Parcel #102-64-057) on the north side of County Road 2225 (Tanner Trail) (see Figure 2). The standpipe area would be leased from the private landowner and graded and leveled to accommodate the construction of a graveled driveway with a turnaround off County Road 2225 (Tanner Trail) for access.

The well would be connected to the standpipe via an approximately 0.43-mile (2,270 linear feet) waterline. The waterline would cross Nutrioso Creek south and west of the well site along a 20-foot-wide easement at the property line between privately-owned Apache County Parcels #102-64-042 and #102-64-041 and then follow the County Road 2225 (Tanner Trail) easement to the standpipe location (see Figure 2). The waterline would be installed across Nutrioso Creek either via directional boring under the creek or by suspending the waterline above the creek. The waterline would be installed in trenches, with a minimum depth of 76 inches and a width of 36 inches to allow adequate room for installation. If directional boring is used for the Nutrioso Creek crossing, installation would require additional excavation on either side of the creek to place the waterline below the grade of the creek. Following installation, trenches would be backfilled with the excavated soil and crushed rock/gravel, compacted, and reseeded with a native vegetation seed mix where necessary. The construction disturbance area would be approximately 50 feet wide along the length of the installation route and up to 100 feet wide at the Nutrioso Creek crossing.

Construction of the proposed project would result in the temporary disturbance of up to 5.7 acres, with a permanent disturbance area of up to 0.21 acres associated with the well site and standpipe area. The timeline for construction is anticipated to require up to 12 weeks, beginning in the spring of 2025.

The proposed project would request funds from the Drinking Water State Revolving Fund (DWSRF) administered by the Water Infrastructure Finance Authority of Arizona (WIFA) and would therefore be subject to WIFA's National Environmental Policy Act-like environmental review process. WIFA has recommended that an Environmental Information Document (EID) be completed for the project to ensure environmental compliance.

1.2 NEED FOR PROJECT

The EMDWID is undertaking this project to address the need for a reliable local domestic water source, which is driven by the lack of local domestic water sources within the EMDWID beyond private wells. The proposed project would provide a local domestic water source for EMDWID residents and would reduce the need for residents to travel outside of the community to collect water for domestic use. The EMDWID has requested funds for construction of the proposed project from the DWSRF, which is administered by WIFA.

2 ALTERNATIVES TO THE PROPOSED AND ENVIRONMENTAL IMPACTS

This section discusses the alternatives that have been considered by the EMDWID to meet the stated project need, including the No Action Alternative; compares the alternatives; and describes the process of selecting the alternative that the EMDWID is proposing (the Proposed Action). The Proposed Action was selected based on the determination that it provides the most efficient and economical approach for developing the local domestic water source.

2.1 ALTERNATIVES CONSIDERED

This EID considers the Proposed Action and No Action Alternative, as described below.

- Proposed Action: Under the Proposed Action, EMDWID's Proposed Action would be constructed as described in Section 1.1 using funding secured from DWSRF and administered by WIFA.
- No Action: Under the No Action Alternative, the EMDWID would continue to carry out the same activities as those under the Proposed Action, but would do so without DWSRF funding through WIFA. Instead, these activities would be carried out using other funding sources.

2.2 COMPARISON OF ALTERNATIVES

The Proposed Action and the No Action Alternative would ultimately result in essentially the same outcome, but with differing impact timelines and costs. Because both actions ultimately result in the same outcome, both actions would have similar environmental impacts. If the required funding is not obtained from WIFA (No Action), EMDWID would still need to develop a local domestic water source to provide water to residents. Funding the projects from municipal sources would result in longer timelines, and the net capital cost of the projects would likely increase. Because of the extended timeline and additional costs associated with using EMDWID funding, the No Action Alternative would have a greater potential impact on human health and safety.

In comparing the Proposed Action with the No Action Alternative from a water resources perspective, both alternatives would have the same impacts. Both the Proposed Action and the No Action Alternative would involve development of a new domestic water source. Neither alternative would have a direct

impact on surface water quantity or groundwater quantity and quality, as a portion of current water use would simply shift source location. Both alternatives would have the potential to indirectly impact surface water quality due to upland construction disturbances contributing to short-term sedimentation and turbidity in Nutrioso Creek; however, with the implementation of best management practices (BMPs), which is required as part of a Arizona Pollutant Discharge Elimination System (AZPDES) construction general permit (CGP) and stormwater pollution prevention plan (SWPPP), this impact is anticipated to be negligible. Both alternatives would increase the availability of a local domestic water source for residents served by the EMDWID, which would reduce reliance on water sources outside of the community that need to be hauled to residences and support anticipated future domestic water needs. Therefore, both alternatives would have an indirect impact on water quality.

2.3 SELECTION OF ALTERNATIVE

Based on EMDWID's evaluation of the available data and in consideration of alternatives, EMDWID decided to pursue the Proposed Action. EMDWID determined that the Proposed Action is a long-term solution that adequately meets the purpose and need in the shortest amount of time and at the lowest cost, and thus selected it as the preferred alternative.

3 ENVIRONMENTAL CONSEQUENCES OF THE PROJECT

This section describes the existing conditions for key environmental resources and evaluates the potential impacts expected to result from the Proposed Action and No Action Alternative. Short-term effects are those associated with construction (estimated to occur over 12 weeks), and long-term effects are those associated with the operational life of the project (assumed to occur into perpetuity).

3.1 LAND USE/IMPORTANT FARMLAND/FORMALLY CLASSIFIED LANDS

The project is located on private land within the unincorporated community of Nutrioso (Apache County 2019a, 2019b), partially within the Escudilla Mountain Estates Unit 2 subdivision (Apache County 2024). Existing development within the project area includes a well, an electrical distribution line, gravel and native-surface roads, and livestock fencing (Google Earth 2024). Current land use within the project area is rural residential, served by county and private roads west of Nutrioso Creek, and primarily livestock grazing east of Nutrioso Creek and the project area. Grazing does not occur within the project area. The *Apache County Comprehensive Plan* incorporates the *Nutrioso Community Plan* as the controlling planning document for the community of Nutrioso (Apache County 2019a). The *Nutrioso Community Plan* emphasizes the importance of Nutrioso Creek's water quality, riparian habitat, and scenic values, and focuses on preserving the rural nature of the region by limiting commercial and industrial uses and encouraging low-density residential development (Lanely et al. 2001). The project area is zoned as Agricultural General Zone (Apache County 2024), and permitted uses in the Agricultural General Zone include general uses, home occupations, public and quasi-public uses (which include utilities and other essential services), and accessory uses (Apache County 2019c:23-24). All other uses require a conditional use permit from Apache County.

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, soil types that comprise the project area include Bushvalley cobbly sandy loam (0.3 acres), Clover Springs silt loam (4.3 acres), and Nutrioso loam (1.0 acre) (NRCS 2024). Nutrioso loam, which underlies the existing well parcel and the Nutrioso Creek crossing area, is classified as prime farmland if irrigated (see Figure 3). This area is not currently utilized for agriculture or grazing, and

a 0.06-acre parcel within the 1.0-acre area of prime farmland currently contains a well. All other soils in the project area are not classified as prime farmland, unique farmland, or other farmland of statewide or local importance.

Formally classified lands are defined as properties that are administered either by federal, state, or local government agencies or have been given special protection through formal legislative designation. This classification could include national forests, monuments, or landmarks; national historic sites; Bureau of Indian Affairs land or leases; and Bureau of Land Management–administered lands, among others (USDA 1970). There are no formally classified lands within the project area. The nearest formally classified lands are the Apache-Sitgreaves National Forest, located approximately 0.6 miles to the east and the west of the project area, which surround the private lands comprising the unincorporated community of Nutrioso (Apache County 2019b). The portion of Highway 191 between the towns of Clifton and Springerville is designated as the Coronado Trail Scenic Byway (Federal Highway Administration 2024), located approximately 0.3-mile east of the project area (see Figure 1).

3.1.1 Environmental Consequences of the Proposed Action

As the proposed project would provide water for domestic use to the local community and would not modify the rural nature of the region, lead to commercial or industrial development, or contribute to long-term degradation of Nutrioso Creek's water quality or riparian habitat (see Section 3.6 for more information about potential impacts to Nutrioso Creek), the proposed project would be in conformance with the *Nutrioso Community Plan.* Construction of the new waterline and well infrastructure would be considered a public, quasi-public, and/or accessory use, which would be in conformance with the existing Agricultural General Zone; however, as the standpipe component of the proposed project is not described as a permitted use within the Agricultural General Zone, approval of a conditional use permit by Apache County would be required prior to construction.

During the 12-week construction period, up to 1.0 acre of soils classified as prime farmland if irrigated would be disturbed by construction activities associated with the installation of the waterline and improvements to the existing well. The 0.06-acre well parcel would be fenced and would remain unavailable for agriculture for the operational life of the proposed project. Once construction activities are complete, trenches would be backfilled and construction areas outside of the well parcel (approximately 0.04 acres) would be reseeded as necessary. As the portion of the prime farmland if irrigated soils that would be encompassed by the fence around the well parcel already contains existing infrastructure (a well), and the remaining portion would be reseeded, the proposed project would not result in an irreversible conversion of farmland to a non-agricultural use.

As the proposed project would be located 0.3-mile west of Highway 191(Coronado Trail Scenic Byway) and aboveground infrastructure would be limited to the fencing around the well parcel and the standpipe along an existing road, it is not anticipated to result in a noticeable modification to the existing scenic landscape along the highway. Finally, due to the distance to the Apache-Sitgreaves National Forest, there would be no effect to formally classified lands as a result of the Proposed Action.

3.1.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.2 FLOODPLAINS

The project area is mapped on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panel numbers 04001C4878E and 04001C4879E (FEMA 2024). The well parcel and the Nutrioso Creek crossing area portion of the project area is mapped as a 100-year floodplain (see Figure 4). This area is designated by FEMA as a regulatory floodway in Zone AE, which includes areas subject to inundation by the 1%-annual-chance flood event (i.e., 100-year floodplain) with base flood elevations (BFEs) identified. Zone AE is considered a Special Flood Hazard Area (SFHA). All other portions of the project area are mapped as Zone D, which are areas with undetermined flood hazard. Floodplain designations and definitions within the project area are described in Table 1.

Table 1. FEMA Floodplain Designations in the Project Area

FEMA Designation	Location	Flood Zone Definition	Special Flood Hazard Area?
Zone AE	Northeast portion of project area. Including the well parcel and Nutrioso creek crossing area	Areas subject to inundation by a 1%-annual-chance (or 100-year) flood event, with base flood elevations; includes regulatory floodway	Yes
Zone D	All other project location areas	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted.	No

Source: FEMA (2024)

3.2.1 Environmental Consequences of the Proposed Action

The proposed project would result in construction of the well parcel fencing, equipping of the existing well, and installation of the waterline within a SFHA. The well facility would be designed in accordance with National Flood Insurance Program requirements such that floodwaters do not enter or accumulate within system components and to ensure that floodwater does not contaminate the water supply.

Construction within an SFHA would be subject to the Apache County Flood Control District (ACFCD) Ordinance (Flood Control Ordinance). A flood hazard development permit from ACFCD would be required prior to constructing, placing fill, excavating, or conducting other development within the SFHA to ensure that the well facility is protected against and resistant to flood damage, construction minimizes potential flood damage, and the operation of the project does not increase water surface elevations and impact surrounding and downstream areas.

With adherence to the ACFCD Flood Control Ordinance and development permit stipulations, direct impacts would sufficiently reduce or mitigate the potential short-term and long-term dangers or hazards to life or property resulting from the development within the SFHAs.

3.2.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.3 WETLANDS

According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), one riverine feature (Nutrioso Creek), is located within the project area (USFWS 2024a). Nutrioso Creek is identified as a perennial stream (Arizona Department of Environmental Quality [ADEQ] 2024a).

No hydric soils are mapped within or adjacent to the project area (NRCS 2024). During SWCA's site visit, water was present and flowing in Nutrioso Creek, and a review of available aerial photographs from 1992 to 2023 (Google Earth 2024) indicate surface water is typically present. In addition, hydrophytic species designated as potential wetland plants under the Western Mountains, Valleys, and Coast Final Draft Ratings species list were identified within and along the banks of Nutrioso Creek (U.S Army Corps of Engineers [USACE] 2024) (see Section 3.5 for a detailed description of plant species observed in the project area).

3.3.1 Environmental Consequences of the Proposed Action

Wetlands may be present within and along the banks of Nutrioso Creek. Construction of the waterline across Nutrioso Creek would be conducted via directional boring under the creek or by suspending the waterline over the creek, depending on final design. Either of these methods are anticipated to avoid direct impacts to these potential wetlands. Indirect impacts resulting from land disturbance during construction activities have the potential to result in the transport sediment through runoff and erosion during storm events, which could enter Nutrioso Creek and adjacent wetlands. With the implementation of these construction methods and BMPs (i.e., silt fence, wattles) associated with the anticipated SWPPP required for the project, impacts from surface disturbance to potential wetlands would not be anticipated to occur.

3.3.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.4 HISTORIC/CULTURAL AND ARCHAEOLOGICAL RESOURCES

SWCA completed comprehensive cultural resources background research for the project area and within a 1.0-mile radius using the AZSITE online database, which includes records from the Arizona State Museum (ASM), Arizona State University, and the Bureau of Land Management. In addition, the files at the ASM Archaeological Records Office were examined. SWCA supplemented the results of the background research to include a review of General Land Office maps, historical topographic maps, land patents, survey plats, and other historical maps and records. This background research did not identify any historic-era features within the Proposed Action Area (Ayers 2024). In addition, examination of the National Register of Historic Places (NRHP) and the National Scenic and National Historic Trails maps revealed no cultural resources.

An SWCA archaeologist conducted a cultural resources survey of the project area on October 10, 2024. This survey was conducted using the current ASM and State Historic Preservation Office (SHPO) standards. No cultural resources (i.e. archaeological sites or historic-era features) were identified (Ayers 2024). The results of the cultural resources records review and the cultural resources field survey were summarized in a single report (Ayers 2024).

3.4.1 Environmental Consequences of the Proposed Action

No cultural resources were identified within the project area; therefore, impacts to known cultural resources or historic properties would not occur under the Proposed Action. A consultation letter was sent to the SHPO on December 5, 2024, and their response is pending.

Should previously unidentified cultural resources be discovered during construction, all construction activity will cease in the immediate vicinity of the find. Appropriately qualified experts in coordination with the SHPO would determine the NRHP eligibility of the find, assess whether the Proposed Action has had or may have an adverse effect on the find, and develop and implement mitigation measures, as appropriate.

3.4.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.5 SENSITIVE BIOLOGICAL RESOURCES

SWCA biologists Erica Fraley and Meggan Dugan conducted a site visit to the project area on September 24, 2024, to collect the necessary data to complete this review of sensitive biological resources. This section provides an overview of vegetation and wildlife present or with the potential to be present and evaluates potential impacts to federally listed species and critical habitats and other special-status species.

Vegetation and Wildlife

The project area is located in the Plains and Great Basin Grassland biotic community (Brown 1994) and has an average elevation of approximately 7,703 feet above mean sea level (amsl). The project area is located at the base of a mesa, and the vegetation within the project area reflects a transition zone between the conifer forest on top of the mesa (which includes two-needle pinyon [*Pinus edulis*], junipers [*Juniperus* spp.], and ponderosa pine [*Pinus ponderosa*]) to the shrub and grass dominated areas in the basin along Nutrioso Creek. Vegetation present in the upland portion of the project area (the well parcel, standpipe area, the waterline area along County Road 2225 [Tanner Trail], and the majority of the Nutrioso Creek crossing area) included scattered two-needle pinyon and one seed juniper (*Juniperus monosperma*) with an understory dominated by blue grama (*Bouteloua gracilis*), squirreltail (*Elymus elymoides*), sand dropseed (*Sporobolus cryptandrus*), rubber rabbitbrush (*Ericameria nauseosa*), and prickly Russian thistle (*Salsola tragus*). Other common species included Woods' rose (*Rosa woodsii*), two-needle pinyon, skunkbush sumac (*Rhus trilobata),* and pingue rubberweed (*Hymenoxys richardsonii*). Adjacent to County Road 2225 (Tanner Trail), there were several non-native plant species, including musk thistle (*Carduus nutans*), Siberian elm (*Ulmus pumila*), burningbush (*Bassia [syn. Kochia] scoparia*), field bindweed (*Convolvulus arvensis*), prickly Russian thistle, and redstem storksbill (*Erodium cicutarium*). Musk thistle is an Arizona Department of Agriculture (ADA) Class B noxious weed, and Siberian elm, burningbush, and field bindweed are Class C noxious weeds (ADA 2024).

Nutrioso Creek is a perennial creek that is comprised of very different common and dominant plant species than the adjacent uplands described above. During the site visit, water was present and flowing, and the plant species observed reflected regular water availability. The portions of the creek surveyed were incised, with the upper banks up to 2 meters above creek level, generally with one or two intermediate bank tiers. Vegetation primarily consisted of grass and forb cover without a shrub overstory. A single gray alder (*Alnus incana*) was observed. Dominant plants along the creek included creeping bentgrass (*Agrostis stolonifera*) and Canada wildrye (*Elymus canadensis*). Other common plants along the creek included field horsetail (*Equisetum arvense*), Rocky Mountain iris (*Iris missouriensis*), jointleaf rush (*Juncus articulatus*), narrowleaf willow (*Salix exigua*), and oxeye daisy (*Leucanthemum vulgare*). Musk thistle was also common along the creek. Less common species documented along Nutrioso Creek included Torrey's rush (*Juncus torreyi*), wild mint (*Mentha arvensis*), fringed willowherb (*Epilobium ciliatum*), softstem bulrush (*Schoenoplectus tabernaemontani*), and meadow thistle (*Cirsium scariosum*). No sedges (*Carex* spp.) were documented during the site visit.

Five avian species were documented in the project area during the site visit: common raven (*Corvus corax*), northern flicker (*Colaptes auratus*), western bluebird (*Sialia mexicana*), turkey vulture (*Cathartes aura*), and yellow-rumped warbler (*Setophaga coronata*). These observed species are protected under the Migratory Bird Treaty Act (MBTA) (16 United States Code 703–712). The MBTA provides federal protection to all migratory birds, including nests and eggs. No nests were observed in the project area during the site visit.

The project area is within the Nutrioso Creek middle – USFS Boundary upstream to the confluence with Hulsey Creek, and the Nutrioso Rudd Conservation Opportunity Areas (COAs) (Arizona Game and Fish Department [AZGFD] 2024a). COAs are areas where conservation actions will substantially benefit wildlife, and typically represent areas with high conservation value. The Arizona Wildlife Conservation Strategy defined COAs to prioritize conservation projects and actions; however, there are no specific regulatory effects associated with COAs (AZGFD 2022). One Apache and Navajo County identified wildlife crossing is located approximately 0.4 mile south of the project area (AZGFD 2013).

Species Evaluation

The USFWS Information for Planning and Consultation system (USFWS 2024b) (Appendix B) was queried to identify federally listed species (endangered, threatened, non-essential and experimental [EXPN] populations, or candidate species) that have the potential to occur in the project area, as well as critical habitat for these species. The AZGFD Arizona Heritage Geographic Information System Environmental Review Tool (ERT) (AZGFD 2024a) (Appendix C) was also queried to assess the potential for federally listed and state special-status species to occur within 3 miles of the project area.

Four of the nine species listed by the USFWS as threatened, endangered, or EXPN for the project area have the potential to occur in the project area (see Table 2): Little Colorado spinedace (*Lepidomeda vittata*), Mexican spotted owl (*Strix occidentalis lucida*), Mexican wolf (*Canis lupus baileyi*), and New Mexico meadow jumping mouse (*Zapus hudsonius luteus*). Portions of designated critical habitat (Subunit 5B – Nutrioso) for the New Mexico meadow jumping mouse is present within the project area (Figure 5). One candidate species for listing, monarch butterfly (*Danaus plexippus*), also has the potential to occur in the project area. The project area is beyond the known geographic or elevational range of the remaining five species, does not contain vegetation or landscape features known to support these species, or both. Initial coordination with the USFWS and AZGFD provided additional information regarding species potential to occur within the project area (Gladding 2024a, 2024b). Table 2 summarizes the habitat requirements, potential for occurrence, and possible effects of the Proposed Action on these nine species.

Table 2. Federally Listed Species Potentially Occurring in the Project Area

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in the Project Area	Determination of Effect**
Chiricahua leopard frog (*Rana chiricahuensis*)	T	The species requires permanent or semi-permanent water of cienegas, springs, pools, stock tanks, lakes, streams, and rivers free of or containing low densities of non-native predators at elevations between 3,200 and, 8,900 feet. Emergent and perimeter vegetation provide substrate for egg deposition, thermoregulation, and invertebrate fauna for foraging. The species has an increasingly narrow realized niche as it is often excluded from ephemeral habitats, which may not provide surface moisture requirements for adult survival and larval development, and perennial habitats, where harmful non-native species are more prevalent.	Unlikely to occur. While suitable habitat for this species occurs along Nutrioso Creek within the project area, coordination with AZGFD (Gladding 2024b) indicated that the nearest known population of Chiricahua leopard frog is within the Grasslands Wildlife Area, approximately 16 miles to the northwest of the project area. This is beyond the known maximum distance of up to 5 miles (USFWS 2007). Additionally, crayfish were documented in Nutrioso Creek during the site visit and would likely prey on any Chiricahua leopard frogs that would disperse into the project area.	No effect
Little Colorado spinedace (*Lepidomeda vittata*)	T	See description below.	May occur, see discussion below.	May affect, not likely to adversely affect the species
Loach minnow (*Tiaroga cobitis*)	E	This species is a bottom dweller found in small to large perennial creeks and rivers, typically in shallow, turbulent riffles with cobble substrate, swift currents, and filamentous algae. Found at elevations below 8,000 feet amsl.	Unlikely to occur. While the project area contains a perennial creek, this species is found from the North Fork East Fork Black River and possibly the White River systems, which are tributaries of the Salt River (USFWS 2012a, 1991). Nutrioso Creek is a tributary of the Little Colorado River, which drains into the Colorado River in the Grand Canyon. This watershed is not within the current known range of the species.	No effect
Mexican spotted owl (*Strix occidentalis lucida*)	T	See description below.	May occur, see discussion below.	May affect, not likely to adversely affect the species
Mexican wolf (*Canis lupus baileyi*)	EXPN	See description below.	May occur, see discussion below.	May adversely affect, not likely to jeopardize the continued existence of the species
Monarch butterfly (*Danaus plexippus*)	C	See description below.	May occur, see discussion below.	May affect, not likely to adversely affect the species
New Mexico meadow jumping mouse (*Zapus hudsonius luteus*)	E	See description below.	May occur, see discussion below.	May affect, not likely to adversely affect the species

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in the Project Area	Determination of Effect**
Southwestern willow flycatcher (*Empidonax traillii extimus*)	E	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood (*Populus* spp.), willow (*Salix* spp.), boxelder (*Acer negundo*), saltcedar (*Tamarix* spp.), Russian olive (*Elaeagnus angustifolia*), buttonbush (*Cephalanthus* spp.), and arrowweed (*Pluchea sericea*) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet high, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet amsl.	Unlikely to occur. Suitable dense riparian habitats are not present within the project area.	No effect
Yellow-billed cuckoo (*Coccyzus americanus*)	T	Cottonwood-willow forests are most often used, although other riparian tree species can be important components of breeding habitat. They require relatively large, contiguous patches of multilayered riparian habitat for nesting. Migration and wintering habitat needs are not well known, although they appear to include a relatively wide variety of conditions, including coastal scrub, second-growth forests and woodlands, forest edges, pine–oak woodland, and lakes near foothills. They are also found in canyons that typically contain higher percentages of mesquite (*Prosopis* sp.) and bunchgrasses than unoccupied areas.	Unlikely to occur. Suitable cottonwood-willow or riparian forests are not present within the project area.	No effect

Note: Unless otherwise noted, the information in the table is based on species abstracts from the AZGFD Heritage Data Management System (AZGFD 2024b); USFWS Environmental Conservation Online System (USFWS 2024e); and Arizona Breeding Bird Atlas (Corman and Wise-Gervais 2005).

* USFWS Status Definitions:

C = Candidate. Candidate species are those for which the USFWS has sufficient information on biological vulnerability and threats to support proposals to list as endangered or threatened under the ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.

E = Endangered. An animal or plant species in danger of extinction throughout all or a significant portion of its range.

EXPN = Experimental Population, Non-Essential. Experimental populations of a species designated under Section 10(j) of the ESA for which the USFWS, through the best available information, believes is not essential for the continued existence of the species. Regulatory restrictions are considerably reduced under an EXPN designation.

T = Threatened. An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

** Consultation with USFWS is ongoing

Little Colorado spinedace has been documented within 3 miles of the project area (AZGFD 2024a). The species inhabits pools with water flowing over fine gravel and silt-mud substrates of medium to small streams at elevations between 4,000 and 8,000 feet (USFWS 2023). The species is known to occur within Nutrioso Creek upstream (south) of the Nelson Reservoir, and has been detected in this as recently as 2018 (USFWS 2019). The project area contains a perennial stream with suitable fine silt substrates that is known to be occupied by the species, therefore the species may occur.

Mexican spotted owl has been documented within 3 miles (AZGFD 2024a) and has designated critical habitat approximately 0.4 mile east of the project area (USFWS 2024c). Nesting and roosting habitats include high-elevation (4,000–10,000 feet) mature forests with uneven-aged tree stands, multi-storied canopy, moderate to high canopy closure, downed logs, and snags or incised rocky-canyon habitats with a perennial water source (USFWS 2012b). The latter typically contains small clumps or stringers of conifer or riparian forests. While this species is highly selective for its roosting and nesting habitats, it

will use a wider array of habitats, including sparse ponderosa pine, pinyon-juniper woodlands, and riparian habitats for foraging, dispersal, and wintering. The project area does not contain moderate to high canopy closure or incised rocky-canyon habitats, so the species is unlikely to roost or nest in the project area. However, as the species may use the project area for foraging or dispersal, it may occur.

Mexican wolf has been documented within 3 miles of the project area by AZGFD (2024a), and recent radio telemetry data has documented a single wolf less than a mile northwest of the project area (USFWS 2024d). The Mexican Wolf Experimental Population Area (MWEPA) (or Non-Essential Experimental Population) encompasses Arizona and New Mexico from Interstate 40 south to Mexico (USFWS 2015, 2022). The project area is within Zone 1 of MWEPA, which is the core reintroduction area for the species where wolves are allowed to reproduce and disperse (USFWS 2015). Within the MWEPA, Mexican wolves are treated as proposed for listing (USFWS 2022). In Arizona, Mexican wolves inhabit pine (*Pinus* spp.)-oak (*Quercus* spp.) woodlands, two-needle pinyon-juniper woodlands, and mixed conifer forest (USFWS 2015). In Arizona, they show a strong preference for elk (*Cervus elaphus nelsoni*), compared with other ungulates, although deer (*Odocoileus* spp.) and small animals are also preyed upon. Elk scat was noted during the site visit, and the project area contains suitable pinyon-juniper habitat, therefore the species may occur.

New Mexico meadow jumping mouse has been documented within 3 miles (AZGFD 2024a) of the project area, and the project area is located within designated critical habitat Subunit 5B – Nutrioso (USFWS 2016). The New Mexico meadow jumping mouse is a habitat specialist that requires dense riparian herbaceous vegetation associated with seasonally available or perennial flowing water, as well as adjacent uplands that support the vegetation needed for foraging, breeding, and hibernating (USFWS 2020a). This species is a true hibernator and is active from late May or early June into early October, with breeding occurring June through August. While not much information about hibernation is known, hibernation is assumed to occur underground or under shrubs outside of the stream channel's flood prone area (USFWS 2020a). Frey (2017) found six important characteristics of New Mexico meadow jumping mouse microhabitat within the White Mountains of Arizona. These characteristics included being near flowing water, saturated soil, dominant plant cover consisting of sedges and forbs, tall dominant vegetation (average of 24 inches tall), less than 50 percent canopy cover, and no trees. Frey also noted that while sedges were important on a microhabitat scale, on a landscape scale, they were the third most prevalent source of cover after grasses and forbs. The species is not known to occur in rocky stream banks or when bare ground is showing (Frey 2012 and 2013, as cited in USFWS 2020a). The New Mexico meadow jumping mouse has also been documented using upland areas adjacent to riparian areas for dispersal, day nesting, maternal nests, and hibernating (USFWS 2020a). These upland habitats are less well described for the species than the required riparian habitats; however, rose (*Rosa* spp.) and pine (*Pinus* spp.) have been recorded in mouse diets (Chambers 2017, as cited in USFWS 2020a).

Along Nutrioso Creek within designated critical habitat Subunit 5B – Nutrioso (USFWS 2016), the New Mexico meadow jumping mouse has been captured at several locations (USFWS 2020a). Between 2005 and 2014, and after 2014, the species has been captured on U.S. Forest Service-managed lands approximately 3.4 miles upstream of the project area, south of the town of Nutrioso (USFWS 2020a). Since 2014, the species has also been documented approximately 1.1 miles downstream of the project area near the confluence of Colter Creek (USFWS 2020a). The New Mexico meadow jumping mouse has been documented moving up to 1 kilometer (0.62 mile) between years (USFWS 2020a).

As described above, the segment of Nutrioso Creek within the project area is a narrowly incised, perennial stream, with margins dominated by an herbaceous cover consisting of grasses and forbs. No sedges were found in the segment of Nutrioso Creek within the project area; however, forbs were abundant, and scattered areas of dense grass and forb cover were found. The banks of the portion of Nutrioso Creek within the project area are steep and eroded, and patches of bare ground are common

above the saturated soil line (Figures 6 and 7). Nutrioso Creek is functionally connected from the documented population downstream of the project area to the population upstream of the project area and may provide suitable dispersal habitat for the species. Based on the microhabitat preferences described above for the species, the proximity to known populations, and an available dispersal corridor, the species may occur in the project area; however, due to the limited extent of suitable habitat characteristics and steep banks, it may not function as core habitat for New Mexico meadow jumping mouse.

The monarch butterfly is a candidate species for listing. There are generally no provisions in the Endangered Species Act (ESA), as amended (16 United States Code [USC] 1531 et seq.) for candidate species, but the USFWS encourages opportunities to conserve the species. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they lay eggs only on milkweed (family Asclepiadaceae) plants (USFWS 2020b). The species occurs throughout Arizona during the summer and migrates to Mexico and California in winter, though small numbers do overwinter in the low deserts of southwestern Arizona (Morris et al. 2015; USFWS 2020b). In the southwestern United States, migrating monarchs often occur near water sources such as rivers, creeks, riparian corridors, roadside ditches, and irrigated gardens. The nearest documented monarch is approximately 7 miles north of the project area along Rudd Creek (Western Monarch Milkweed Mapper 2024). The project area is within the summer range for the species and contains suitable nectar-producing species for monarch foraging. In addition, horsetail milkweed was documented within the project area during the site visit, which is suitable for breeding. Therefore, the species may occur in the project area.

In addition to the ESA–listed species described above, other special-status species have been documented within 3 miles of the project area (AZGFD 2024a) (see Appendix C). Special-status species include species protected under the Bald and Golden Eagle Protection Act, Species of Greatest Conservation Need (SGCN) (Tier 1 or Tier 2 species) (AZGFD 2022), and plants protected under the Arizona Native Plant Law (ANPL) (ARS 3-901 to 3-934).

Six special-status bird species have been documented within 3 miles of the project area: American goshawk (*Astur atricapillus*), bald eagle (*Haliaeetus leucocephalus*), broad-tailed hummingbird (*Selasphorus platycercus*), flammulated owl (*Psiloscops flammeolus*), long-eared owl (*Asio otus*), and northern harrier (*Circus hudsonius*) (AZGFD 2024a). The project is within the year-round range of the American goshawk, which nests in forests with high canopy cover but may forage in more diverse habitats such as open sage brush steppes and riparian areas (Squires and Reynolds 2024).

The bald eagle is protected under the Bald and Golden Eagle Protection Act and is a Tier 1 SGCN. Bald eagles are found primarily near rivers and large lakes and nest in tall trees or on cliffs near water. Wintering habitat is typically more general than nesting habitat. Bald eagles can occur anywhere in Arizona in winter, and the Nutrioso Reservoir, which is approximately 0.2 mile south of the project area, provides suitable foraging habitat for the species. The nearest bald eagle breeding area is on Luna Lake, approximately 11 miles southeast of the project area (Southwest Bald Eagle Management Committee 2024). The project area does not contain large trees or cliffs that would support nesting eagles, however due to the proximity to suitable foraging and breeding areas the species may occur in the project area.

The project area is within the breeding range of the broad-tailed hummingbird, which is found in the mountains of Arizona and may use ponderosa pine and pinyon-juniper woodlands for foraging (Camfield et al. 2020). The project area is within the breeding range of the flammulated owl, which prefers ponderosa pine and oak forests in Arizona (Linkhart and McCallum 2020). The project area is within the year-round range of the long-eared owl, which uses dense vegetation adjacent to grasslands for nesting but may forage in a wider range of habitats (Marks et al. 2020). The project area is within the year-round range of the northern harrier, which uses open areas such as marshy meadows, dry uplands, and shrub

steppe habitats (Smith et al. 2020). These six species may occur within the project area, as it contains appropriate habitat for breeding, foraging, or both and is within the known range of these species.

One special-status mammal has been documented within 3 miles of the project, montane vole (*Microtus montanus*). The montane vole occurs in the White Mountains of Arizona and uses dry grasslands, shrublands, and wet meadows (Montana Natural Heritage Program 2024). This species may occur within the project area, as it contains appropriate habitat for breeding, foraging or both and is within the known range of these species.

Two special-status plants protected under the ANPL have been documented within 3 miles of the project area: Hart's groundsel (*Packera hartiana*) and Nutrioso milk-vetch (*Astragalus nutriosensis*). Hart's groundsel is found in the mountains of Arizona along streambanks, in meadows, and in other open habitats (Springer et al. 2009). Nutrioso milk-vetch is found in southeast Arizona and western New Mexico on volcanic mesa tops in grassland habitats (Arizona Rare Plant Committee 2001). Hart's groundsel may occur within the project area, as it contains appropriate habitat and is within the range of the species; however, this species was not observed during the site visit. Nutrioso milk-vetch is unlikely to occur, as the project area does not contain appropriate habitat.

3.5.1 Environmental Consequences of the Proposed Action

Impacts from the proposed project on sensitive biological resources, including special-status species, would include those from ground-disturbing activities, vegetation removal, noise and vibrations from equipment, and the presence of workers and equipment during the 12-week construction period, as well as the long-term loss of habitat for the life of the project.

Ground disturbance and vegetation removal during construction would result in the short-term loss of habitat for wildlife and plants on up to 5.49 acres of the project area; however, much of this would likely occur within the existing disturbance footprint of County Road 2225 (Tanner Trail). Following completion of construction, these areas would be reseeded with a native vegetation seed mix where necessary and would function as wildlife habitat following vegetation regrowth. Potential effects to migratory birds and other special-status wildlife species may include temporary habitat loss during construction, harassment, increased susceptibility to predation, injuries, and fatality of individuals caused by construction activities. Noise and disturbance from construction activities could cause behavior changes for wildlife species, as individuals would be expected to move away from the project area vicinity in response to the increase of noise, vibration, and human presence. Depending on the individual species' life history, this could increase depredation, decrease foraging success, reduce reproductive success, and result in loss of fitness for individuals due to the associated increased metabolic output. The presence of workers and equipment could cause mortality or injury to wildlife species that may not be able to flee from heavy equipment or vehicular traffic, with a higher likelihood of these impacts for individuals of species that are small, nocturnal, or fossorial.

Potential impacts to monarch include the short-term loss of foraging and breeding habitat due to the removal of nectar-bearing plants and horsetail milkweed in areas of ground disturbance and vegetation removal and potential for injury or mortality from collision with construction vehicles and equipment. The likelihood of collision with construction equipment and vehicles would be low given their generally slow speeds and the brief construction period. Areas of disturbance would be reseeded with a native seed mix, as necessary, following construction, and would function as habitat following vegetation regrowth.

Ground-disturbing and vegetation removal activities could impact migratory birds protected under the MBTA if the activities occur during the migratory bird nesting season (generally March to late August). Ground-disturbing and vegetation removal activities outside the nesting season are not anticipated to

result in impacts to migratory birds. Clearing vegetation outside the migratory bird nesting season and/or conducting preconstruction surveys would avoid potential impacts to nesting migratory birds.

To cross Nutrioso Creek, the waterline would be installed either via directional boring under the creek or by suspending the waterline above the creek. If directional boring under the creek is used, the intensity of disturbance in the upland areas on either side of the creek would be increased, but the vegetation of the creek itself would not be disturbed. If the project suspends the waterline above the creek, the waterline would be trenched to a minimum depth of 76 inches and width of 36 inches to the edge of the creek bank before being suspended. This approach would be unlikely to result in disturbance to creek vegetation due to the high bank edge. In both cases, construction activities would result in noise and vibration from equipment, as well as human presence, which would affect wildlife within the creek and contribute to increased sedimentation and turbidity in Nutrioso Creek during the 12-week construction period. Impacts from increased sedimentation and turbidity would be minimized by the implementation of stormwater best practices (Section 4).

Impacts on general vegetation and wildlife are anticipated to be short-term and localized to the project area and vicinity and would cease at the end of construction. Long-term loss of wildlife habitat would be limited to the 0.21 acres associated with the well site (0.06 acre) and standpipe (0.15 acre) areas, and a marginal increase in traffic on County Road 2225 (Tanner Trail) from residents accessing the standpipe.

Potential impacts on four federally listed species are anticipated. As there are potential impacts to Little Colorado spinedace, New Mexico meadow jumping mouse and its designated critical habitat, Mexican spotted owl, and Mexican wolf (a federally listed species with an experimental, non-essential population), consultation with the USFWS is required. Section 7 consultation between the U.S. Environmental Protection Agency (EPA), which is acting as the lead federal consulting agency on behalf of WIFA, and USFWS is ongoing. Consultation will identify reasonable and prudent measures to reduce or eliminate potential impacts to listed species and designated critical habitat. Currently proposed minimization and mitigation measures are documented in Section 4.

Impacts on the Little Colorado spinedace would consist of an increase in noise and vibration in the creek bed due to construction equipment, increased human presence, and a temporary increase in sedimentation and turbidity in Nutrioso Creek due to construction in the upland areas. Direct disturbance to habitat in Nutrioso Creek is not anticipated, as construction of the waterline across Nutrioso Creek would either utilize directional boring underneath the creek or suspend the waterline above the creek, as described above. These impacts would be limited to the 12-week construction period, and implementation of stormwater best practices would minimize the impacts of sedimentation on Nutrioso Creek (see Section 4). While the Little Colorado spinedace may be present in the project area, death or injury of individuals is not anticipated due to the lack of construction activity within Nutrioso Creek, where the species would be present. Impacts on the Mexican spotted owl would be limited to loss of foraging habitat within the project area, as the project area lacks suitable roosting or nesting habitat and is located approximately 0.4-mile from the nearest designated critical habitat. Ground disturbance and vegetation removal during construction would eliminate foraging habitat within the project area; however, as aboveground infrastructure would be limited to an approximately 0.21-acre area and vegetation would be allowed to regrow in the remaining project area following the 12-week construction period, foraging habitat loss would be short-term. Additionally, construction would occur during daylight hours, and increased human presence and noise from equipment would be unlikely to impact foraging in adjacent habitats by this species.

Impacts on the Mexican wolf would consist of a reduction in habitat and disturbance to wolves, if present, and their prey due to noise and activity from the presence of humans and equipment during the 12-week construction period. Disturbance due to noise and activity may cause wolves to avoid the project area;

however, current use of the project area by wolves is likely limited due to existing development and human presence, and habitat is available beyond the project area. Prey resources, including elk, are also likely to shift use away from project area, which may change the availability of prey within the vicinity of the project area during the construction period. These effects would cease at the end of construction.

Ground-disturbing activities may impact New Mexico meadow jumping mouse individuals and designated critical habitat. New Mexico meadow jumping mouse has been documented approximately 3.4 miles upstream and approximately 1.1 miles downstream of the project area (USFWS 2020a), and individuals may be present in suitable habitat along Nutrioso Creek in the project area or disperse through the project area. If the species is present, effects would include temporary habitat loss during construction, harassment, predation, injuries, and fatalities of individual New Mexico meadow jumping mice caused by construction activities. In addition, human activity and construction noise and vibration could lead to behavioral changes. While suitable habitat within the project area is limited due to the steep banks, bare ground, and narrow extent of riparian vegetation, it is functionally connected to known populations. Thus, New Mexico meadow jumping mice may be present throughout areas adjacent to Nutrioso Creek, and individuals may be injured or killed in their shelters, on the surface, or anywhere surface disturbances occur in proximity to the creek during construction activities during the 12-week construction period. Removal of vegetation within or along Nutrioso Creek is not anticipated, as construction of the waterline across Nutrioso Creek would either utilize directional boring underneath the creek or suspend the waterline above the creek, as described above. Construction activities may result in increased sedimentation and turbidity in Nutrioso Creek due to surface disturbance in upland areas; however, implementation of stormwater best practices would minimize the impacts of sedimentation on Nutrioso Creek (see Section 4). Ground disturbance and vegetation removal within designated critical habitat would eliminate New Mexico meadow jumping mouse habitat within the project area. Approximately 0.06 acre of upland habitat within designated critical habitat will be impacted in the long term by the presence of fencing and infrastructure in the well parcel. For the remainder of the area, disturbance areas would be reseeded with a native plant mix, where necessary, and vegetation allowed to regrow.

3.5.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.6 WATER RESOURCES

3.6.1 Surface Waters

3.6.1.1 Surface Water Quantity

The following sources were reviewed for potential surface water resources: recent aerial photographic imagery available online (Google Earth 2024); USFWS NWI wetlands mapper (USFWS 2024); U.S. Geological Survey (USGS) USGS National Map, which includes the National Hydrography Dataset (NHD) NHD streams, Watershed Boundary Dataset watersheds, and other surface water feature data (USGS 2024); ADEQ eMaps, which includes flow regimes, Waters of Arizona, Outstanding Arizona Waters, and waters designated as impaired or not attaining water quality standards (ADEQ 2024a); and USGS topographic maps (USGS 2024).

The project area is within the approximately 33-square-mile Paddy Creek-Nutrioso Creek watershed (12-digit Hydrologic Unit Code [HUC] 150200010103), and the approximately 15-square-mile Auger Creek watershed (12-digit Hydrologic Unit Code [HUC] 150200010101). Surface water features within

this watershed flow generally toward Nutrioso Creek, which flows north towards Nelson Reservoir (approximately 6.5 miles north of the project area) and to the Little Colorado River (another 8.5 miles located approximately 14 miles to the northwest of the project area). The Little Colorado River flows over 200 miles to the Colorado River, a traditional navigable water (ADEQ 2024a).

One surface water feature within the project area, Nutrioso Creek, may be considered waters of the U.S. (WOTUS) and regulated by the USACE under Section 404 of the Clean Water Act. Nutrioso Creek is visible on aerial photographs traversing the project area (Figure 4); this surface water feature is mapped by USGS, USFWS, and ADEQ and is identified as perennial (ADEQ 2024a). According to the Revised Definition of Waters of the United States as amended on September 8, 2023 (amended 2023 WOTUS Rule), non-navigable tributaries must have indicators of ordinary high water and be relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to a traditional navigable water. Based on the site visit and review of available aerial photography and mapping, Nutrioso Creek may be consistent with a perennial flow regime and could be considered relatively permanent. In addition, a continuous surface water connection to the Little Colorado River, a potential WOTUS, is evident. Therefore, Nutrioso Creek is likely to be considered a WOTUS by the USACE.

3.6.1.2 Surface Water Quality

Nutrioso Creek has designated uses of cold water aquatic wildlife, fish consumption, full body contact, agricultural irrigation, and agricultural livestock watering (ADEQ, 2024a). No Outstanding Arizona Waters or waters designated as impaired or not attaining water quality standards are present within 1 mile of the project area. Nutrioso Creek was placed on the 303(d) list of impaired waterbodies for violating the turbidity standard for aquatic and wildlife cold water streams resulting from historic grazing activities in 1996, a turbidity Total Maximum Daily Load (TMDL) was developed in 2000, and Nutrioso Creek was subsequently removed from the 303(d) list in 2009 following TMDL implementation activities (EPA 2024a). No known remediation sites are in the vicinity of the Proposed Action Area (ADEQ 2024a).

3.6.2 Groundwater

3.6.2.1 Groundwater Quantity

The Proposed Action Area is within the Little Colorado River Plateau groundwater basin and is not within an Arizona Department of Water Resources (ADWR) Active Management Area (AMA) planning area or an Irrigation Non-Expansion Area (ADWR 2024a).

ADWR maintains an online database of registered wells (Wells 55) and field-verified wells (Groundwater Site Inventory [GWSI]) (ADWR 2024b). The existing well (Well #55-565311) is the only well located within the project area. According to Well 55 data for the existing well, water levels are recorded at approximately 55 feet below land surface (bls). No GWSI information is available for the existing well, however, a review of registered wells in the vicinity of the project area indicates that water levels have ranged between 30 and 64 feet bls between the years 1992 and 2004 (ADWR 2024b), which is consistent with the existing well record. The pump test completed in November 2023 by EMDWID identified water levels approximately 8.5 feet bls. In addition, the well pump test determined that the well currently produces an average of 18.65 gallons/minute. The existing groundwater demand for the 76 properties within the EMDWID is approximately 310,000 gallons per year based on EMDWID estimates. Current water demand in Nutrioso is sourced from private wells or hauled in from wells located in adjacent communities (primarily the unincorporated community of Alpine, Arizona, located approximately 8 miles south of the project area).

3.6.2.2 Groundwater Quality

A water quality test performed by the EMDWID on water samples from Well #55-565311 was conducted for various contaminants regulated by the EPA. The results of this test concluded that none of the contaminants that were tested exceed the maximum contaminant level allowed for drinking water and are at or below levels in accordance with state and federal regulations. Additionally, no violations were identified during this test.

3.6.3 Environmental Consequences of the Proposed Action

3.6.3.1 Surface Water

3.6.3.1.1 SURFACE WATER QUANTITY

The Proposed Action crosses Nutrioso Creek, a potential WOTUS with adjacent wetlands; however, the waterline would be constructed through directional boring or by suspending the waterline across Nutrioso Creek. Therefore, no effects to surface water quantity are anticipated. The Proposed Action is not anticipated to result in impacts to WOTUS or jurisdictional wetlands, and a Clean Water Act Section 404 permit is not anticipated to be required.

3.6.3.1.2 SURFACE WATER QUALITY

Surface disturbance during construction for the Proposed Action has the potential to release contaminants (mostly sediment) through runoff and erosion during storm events. However, impacts to surface water quality in local drainages would be negligible. An AZPDES CGP would need to be obtained from ADEQ, and a SWPPP would need to be implemented if greater than 1 acre of ground disturbance is anticipated during construction and stormwater may enter a potential WOTUS. Implementation of BMPs required by the CGP and associated SWPPP that would be implemented during construction would prevent spills and sediment and pollutants from entering Nutrioso Creek. Similarly, if any non-stormwater discharges (e.g., potable water system discharges from underground structure or construction dewatering) into surface WOTUS are planned to occur, an AZPDES De Minimis general permit would be obtained from ADEQ.

3.6.3.2 Groundwater

3.6.3.2.1 GROUND WATER QUANTITY

Under the Proposed Action, the development of the new water line and associated facilities would be constructed to provide a local domestic water source. Well pump testing completed by EMDWID indicates that the existing well's production capacity is estimated at 9,802,440 gallons/year, which exceeds the future estimated demand of up to 3,467,500 gallons/year; therefore, the Proposed Action would have direct, minor, and long-term effects to ground water quantity. During construction, the Proposed Action would result in a direct and minor but short-term increase in water use for dust control and soil compaction, which would cease following completion of the work. EMDWID will obtain all applicable well permits from the ADWR prior to construction.

3.6.3.2.2 GROUNDWATER QUALITY

Currently, ground water quality in the area is within acceptable levels designated by state and federal regulations for drinking water. During construction, impacts to water quality may be direct, minor, and short-term due to the potential for contaminants to enter the well. Following construction, impacts to groundwater quality would not occur.

3.6.4 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.7 AIR QUALITY

Air quality is often measured through indicators of particulate matter. Particulate matter is categorized as $PM_{2.5}$ and PM_{10}, which indicate the amounts of particulates in the air smaller than 2.5 micrometers and 10 micrometers, respectively. Common sources of impacts to air quality in Arizona include vehicle and truck emissions, vehicle traffic on unpaved roads, wind-blown dust, wildfires, and construction activities. Apache County does not have air quality monitoring data for criteria pollutants above the National Ambient Air Quality Standards outlined in the Clean Air Act; therefore, Apache County is not in an EPA nonattainment or maintenance status for air quality (ADEQ 2024b). Apache County received a grade of 'A' from the State of the Air report in 2023 for particle pollution (American Lung Association 2023).

3.7.1 Environmental Consequences of the Proposed Action

During the 12-week construction period, impacts to air quality would result from construction activities, including access to the construction site on unpaved roads, ground disturbance, and idling of construction vehicles. The use of construction equipment, including any vehicles used to transport workers and equipment, would contribute to a direct, short-term increase in criteria air pollutants, including PM_{10}. Ground disturbance would also generate fugitive dust, which contributes to PM_{10} levels. Apache County does not require a dust permit for ground-disturbing activities. Given the limited size of the construction area (up to 5.7 acres), PM_{10} emissions are anticipated to be localized and short term.

After construction is complete, increased vehicle traffic to access the standpipe via unpaved County Road 2225 (Tanner Trail) would likely increase localized fugitive dust emissions compared to existing conditions. Given the limited distance needed to travel along County Road 2225 to reach the standpipe (approximately 0.22 miles), dust emissions are expected to be minimal.

3.7.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.8 WILD AND SCENIC RIVERS

The project area is located along Nutrioso Creek (see Section 3.6 for more information), which is not eligible or potentially eligible for designation as wild and scenic (NPS 2024). The project area is not within 1 mile of a wild and scenic river (National Wild and Scenic Rivers System 2024). The nearest wild and scenic river is the Verde River, over 100 miles west of the project area.

3.8.1 Environmental Consequences of the Proposed Action

There are no designated or eligible wild and scenic rivers; therefore, there would be no effect on wild and scenic rivers as a result of the Proposed Action.

3.8.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.9 NOISE ABATEMENT AND CONTROL

Noise sensitive receptors include, but are not limited to, residences, hospitals, schools, daycare facilities, elderly housing, and convalescent facilities (EPA 2024b). Noise impacts are greatest within a 0.5-mile radius of an active construction area (Wrigley 2018). There are approximately 50 residences, but no other sensitive receptors, within the 0.5-mile-radius of the proposed project area. The closest noise sensitive receptor is a residence less than 0.1 miles southeast of the standpipe. Apache County has not established specific ordinances or other limitations related to noise.

3.9.1 Environmental Consequences of the Proposed Action

Under the Proposed Action, construction noise from construction traffic, heavy machinery, and excavation activities would occur intermittently throughout the 12-week construction period. Construction noise is expected to temporarily impact nearby sensitive noise receptors. Construction noise impacts would be restricted to normal daytime working hours. Noise impacts would cease at the end of construction.

3.9.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.10 TRANSPORTATION

The unincorporated community of Nutrioso is located in east-central Arizona, along US 191. US 191 is located east of the project area and serves as the main artery for traffic in the region. The project area would be largely accessed via County Road 2108, off of US 191, and then via County Road 2225 (Tanner Trail). County Road 2225 (Tanner Trail) is an unpaved road approximately 0.6 miles long that provides access to residences before transitioning into private roads. The well parcel on the east side of Nutrioso Creek would be accessed off US 191 via private dirt roads.

3.10.1 Environmental Consequences of the Proposed Action

Construction of the waterline along the County Road 2225 (Tanner Trail) road shoulder or trenching across the roadway may cause short-term traffic delays during construction. Access to the site for construction vehicles and equipment would be from US 191 via County Roads 2108 and 2225 (Tanner Trail), or via existing unimproved private roads. Slow-moving vehicles associated with construction may temporarily slow the natural flow of traffic on US 191, County Road 2108, and County Road 2225 (Tanner Trail). However, traffic delays due to construction are not anticipated to cause notable congestion, and impacts are expected to be short-term and intermittent during the 12-week construction period.

The standpipe would be located approximately 0.2 miles north of the intersection of County Road 2108 and County Road 2225 (Tanner Trail). An increase in traffic from County Road 2180 to the standpipe on County Road 2225 (Tanner Trail) would be expected following construction as residents access the

standpipe for water. A gravel driveway with a turnaround on County Road 2225 (Tanner Trail) at the standpipe will allow vehicle access without disrupting traffic. The increase in traffic is expected to terminate at the standpipe location.

3.10.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.11 SOCIOECONOMIC ISSUES

Selected economic and demographic characteristics for a one-mile area around the project area, Apache County, and the state of Arizona are summarized in Tables 3 and 4. The one-mile area around the project area was selected because the Proposed Action would directly impact nearby residents within the unincorporated community of Nutrioso, Arizona. According to the U.S. Census Bureau's 2022 American Community Survey (ACS) 5-Year Estimates, residents within one mile of the project area have higher rates of poverty compared with that of Apache County and the state of Arizona. Residents within one mile of the project area and Apache County also have higher unemployment rates compared with that of the state of Arizona.

Table 3. Economic Characteristics

Socioeconomic Characteristic	Project Area 1-mile Area	Apache County	State of Arizona
Population	88	66,054	7,172,282
Median age	No data	35.6	38.4
Median household income	No data	$40,539	$72,581
Unemployment rate	12.0%	11.2%	5.4%
Percentage of people below poverty level	48.0%	29.8%	13.1%

Source: U.S. Census Bureau (2024a, 2024b), U.S. Environmental Protection Agency (2024c).

The demographic profiles within one mile of the project area are similar to those of the state of Arizona and differ from those of Apache County. Residents within one mile of the project area and in the state of Arizona overwhelmingly identify as white and Hispanic or Latino, while Apache County has a large population of residents identifying as American Indian or Alaskan Native. Overall, residents within one mile of the project area have fewer minority[1] populations (38%) than Apache County (76.8%) but are greater than the state of Arizona (17.4%).

Table 4. Demographic Characteristics

Demographic	Project Area 1-mile Area	Apache County	State of Arizona
White	62.0%	23.2%	79.4%
Black or African American	0.0%	1.6%	6.2%
American Indian or Alaska Native	4.0%	74.5%	5.9%
Asian	0.0%	0.7%	4.8%
Native Hawaiian and other Pacific Islander	0.0%	0.1%	0.5%

[1] Minority populations are individuals who are members of the following population groups: American Indian or Alaska Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic (Council on Environmental Quality 1997).

Demographic	Project Area 1-mile Area	Apache County	State of Arizona
Some other race	1.0%	3.6%	17.4%
Hispanic or Latino (of any race)*	34.0%	7.0%	32.0%

Source: U.S. Census Bureau (2024b), U.S. Environmental Protection Agency (2024).

Note: *Hispanic or Latino may be of any race and are included in applicable race categories.

3.11.1 Environmental Consequences of the Proposed Action

Nearly half of the population within one mile of the project area are categorized as living in poverty, and approximately 38% of the population are considered minorities. During construction, impacts from dust and noise would be greatest to the nearest noise sensitive receptors (50 residences within 0.5-mile of the project area) for the 12-week construction period. Once construction is complete, impacts related to dust and noise would cease, and a source of domestic water would be available for residents served by the DWID. As the population that would be impacted by dust and noise would also experience increased availability of domestic water, there would be no disproportionate or adverse effects to minority or low-income populations as a result of the Proposed Action.

3.11.2 Environmental Consequences of the No Action Alternative

Impacts under the No Action Alternative would be the same as those of the Proposed Action because the EMDWID would carry out the same activities as those under the Proposed Action.

3.12 MISCELLANEOUS ENVIRONMENTAL CONSIDERATIONS

Environmental resources discussed above address all known potential impacts expected to occur from the Proposed Action and the No Action Alternative. No miscellaneous environmental resources were identified as requiring evaluation in this EID; therefore, no further considerations of additional environmental resources were made.

4 SUMMARY OF MITIGATION AND MINIMIZATION MEASURES

Below is a list of mitigation measures necessary to avoid or minimize any adverse impacts, under the Proposed Action, to the specific environmental resources discussed in Section 3.

- Areas of new construction or disturbance will be flagged or marked on the ground prior to construction. All construction workers will strictly limit their activities and vehicles to areas that have been marked. Construction personnel will be trained to recognize markers and understand the equipment movement restrictions involved.
- The DWID and its contractors will develop and implement a vehicle fluid-leakage and spill plan that includes provisions for cleaning up and treating hazardous substances immediately, in the event of leakage or spill.
- An AZPDES CGP would be obtained, and a SWPPP would be implemented if ground disturbance during construction would be greater than 1 acre and stormwater may enter WOTUS, in accordance with ADEQ guidelines. An AZPDES De Minimis General Permit would be obtained before any non-stormwater discharges into WOTUS.

- A survey compliant with the USACE's jurisdictional determination process should be completed to confirm the presence or absence of potential WOTUS, including wetlands, that may be protected under the CWA.
- Impacts to WOTUS, including Nutrioso Creek and any adjacent wetlands, would require submittal of a Clean Water Act Section 404 Nationwide Permit No. 58 with preconstruction notification to the USACE.
- All applicable well permits from the ADWR will be obtained prior to construction.
- Should previously unidentified cultural resources be discovered during project construction, all construction activity will cease in the immediate vicinity of the find. Appropriately qualified experts in coordination with the SHPO would determine the NRHP eligibility of the find. If the find is eligible for inclusion in the NRHP, then WIFA, SHPO, and other consulting parties would work to reach an agreement to avoid, minimize, or mitigate adverse effects to historic properties in accordance with 36 Code of Federal Regulations 800.6, Resolution of Adverse Effects.
- If human remains are identified during ground-disturbing activities, all work must immediately cease within 30 meters (100 feet) of the discovery. The ASM, lead agency, SHPO, and appropriate Tribes must be notified of the discovery within 24 hours (following ASM and/or agency protocol). All discoveries will be treated in accordance with Arizona Revised Statutes 41-844 and 41-865, and work must not resume in this area without proper authorization from the ASM and the lead agency.
- Implementation of erosion and drainage control measures during construction will prevent the introduction of sediment-laden runoff into adjacent surface waters, and to prevent impacts to surface water quality. Exposed soils would be stabilized, particularly on slopes, with native vegetation as soon as possible to prevent excess erosion.
- Potential introduction and spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects, and pathogens, will be minimized by washing and/or decontaminating all equipment used in construction before entering and leaving the site.
- Trenching and backfilling crews will be close together to minimize the amount of open trenches at any given time. Trenches will not be left open overnight, when possible. Where trenches cannot be backfilled immediately, escape ramps will be constructed at least every 90 meters. Escape ramps will be short lateral trenches or wooden planks sloping to the surface with a slope of less than 45 degrees (1:1). Trenches that have been left open overnight will be inspected and animals removed prior to backfilling.
- To reduce attraction of animals to the project site, the project site will be maintained in a sanitary condition at all times; waste materials will be placed in covered receptacles and promptly disposed of at an appropriate waste disposal site. "Waste" refers to all discarded matter, including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment. All reasonable efforts will be taken to reduce or eliminate water sources associated with project activities that might attract ravens and other predators.
- All parked vehicles will be checked for animals that might be sheltering underneath them.
- Construction activities would be limited to normal daylight working hours.
- Impacts to transportation would be mitigated through the use of cones, flagging, or short-term traffic reroutes. Additionally, reroutes would be provided through the use of local roads within the impacted areas of the community.

5 CORRESPONDENCE

WIFA is currently coordinating on the project with the environmental regulatory agencies listed in Appendix A. A sample coordination letter is provided in Appendix D.

6 EXHIBITS/MAPS

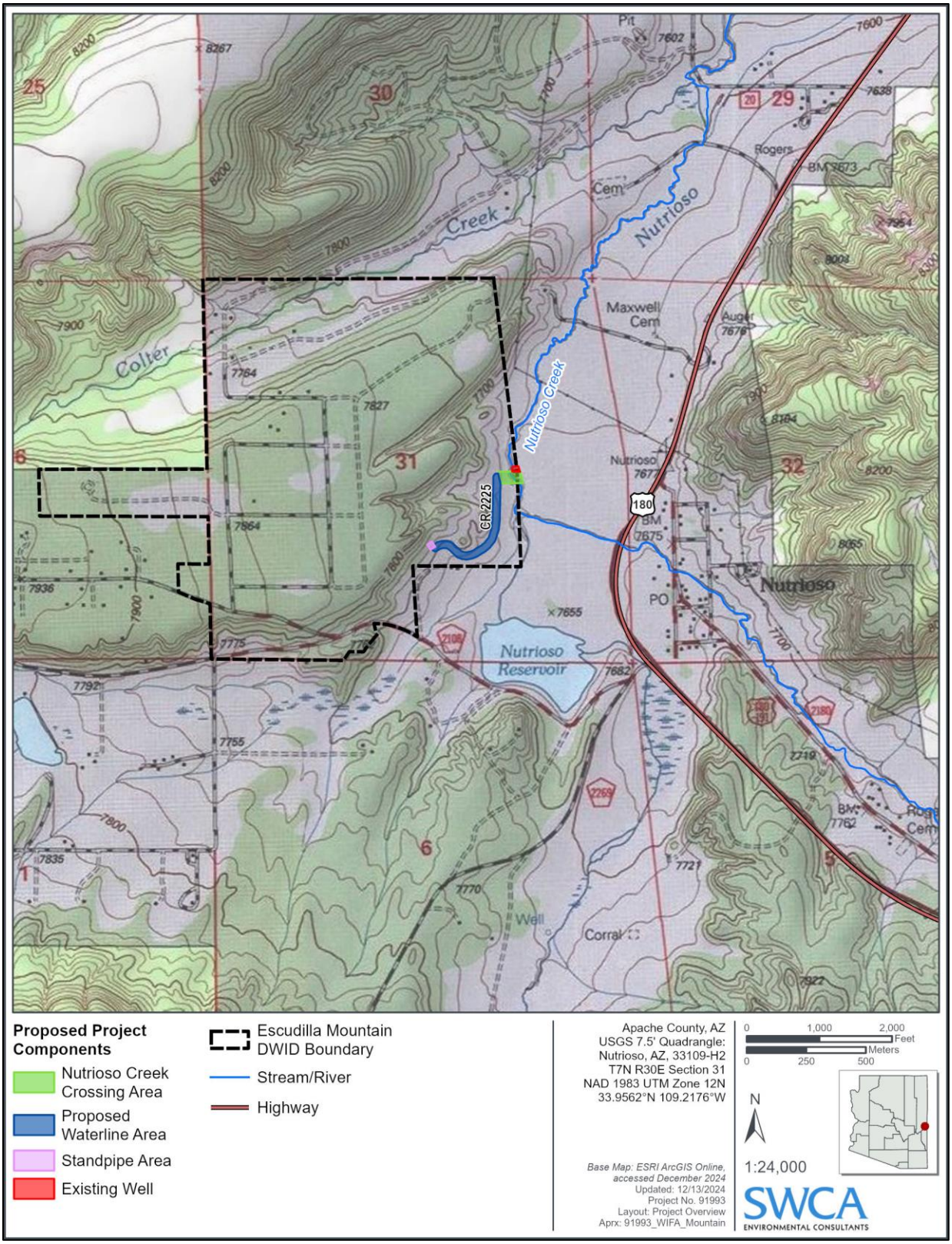


Figure 1. Project overview map.

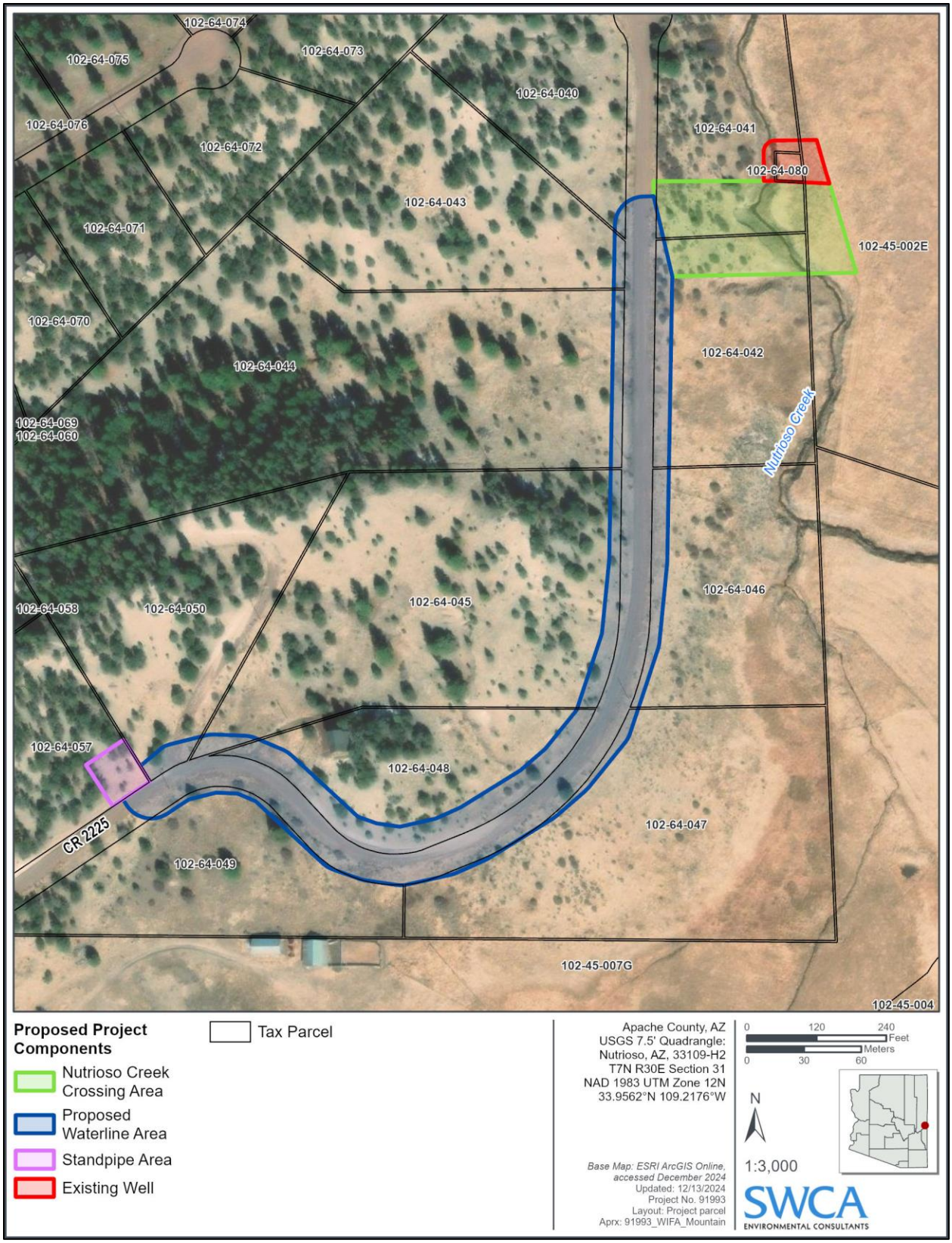


Figure 2. Project area.

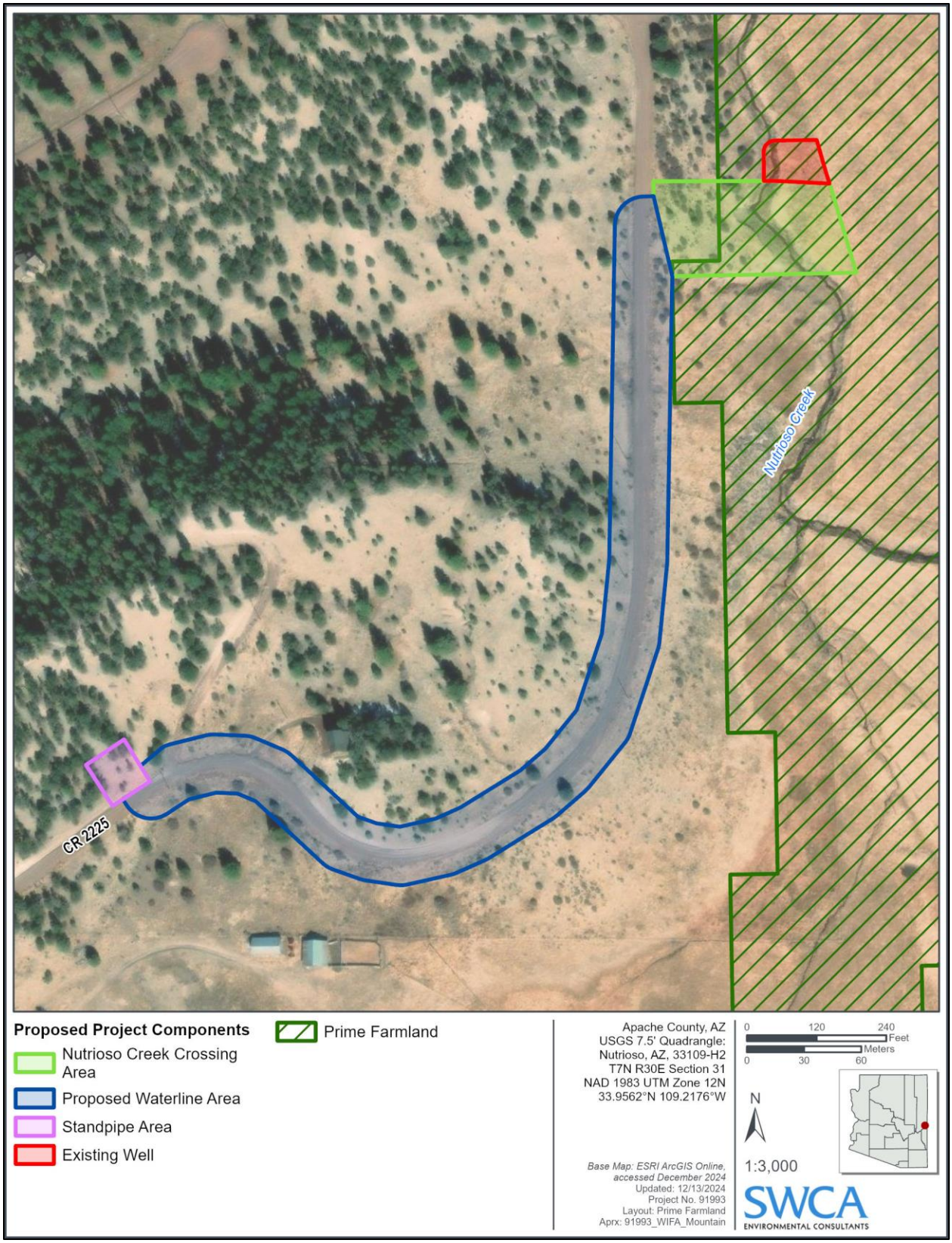


Figure 3. Prime farmland in the project area.

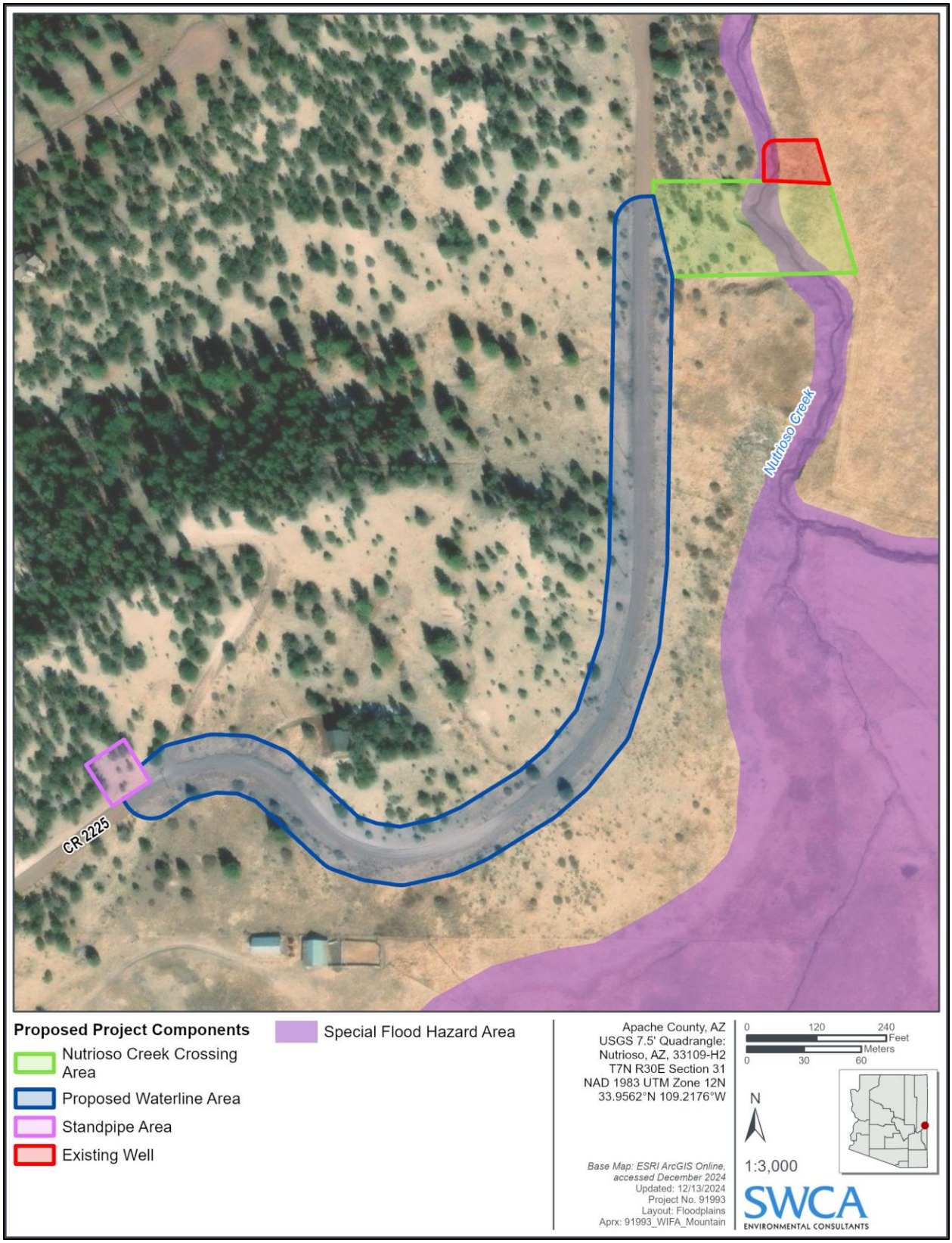


Figure 4. Floodplains in the project area.

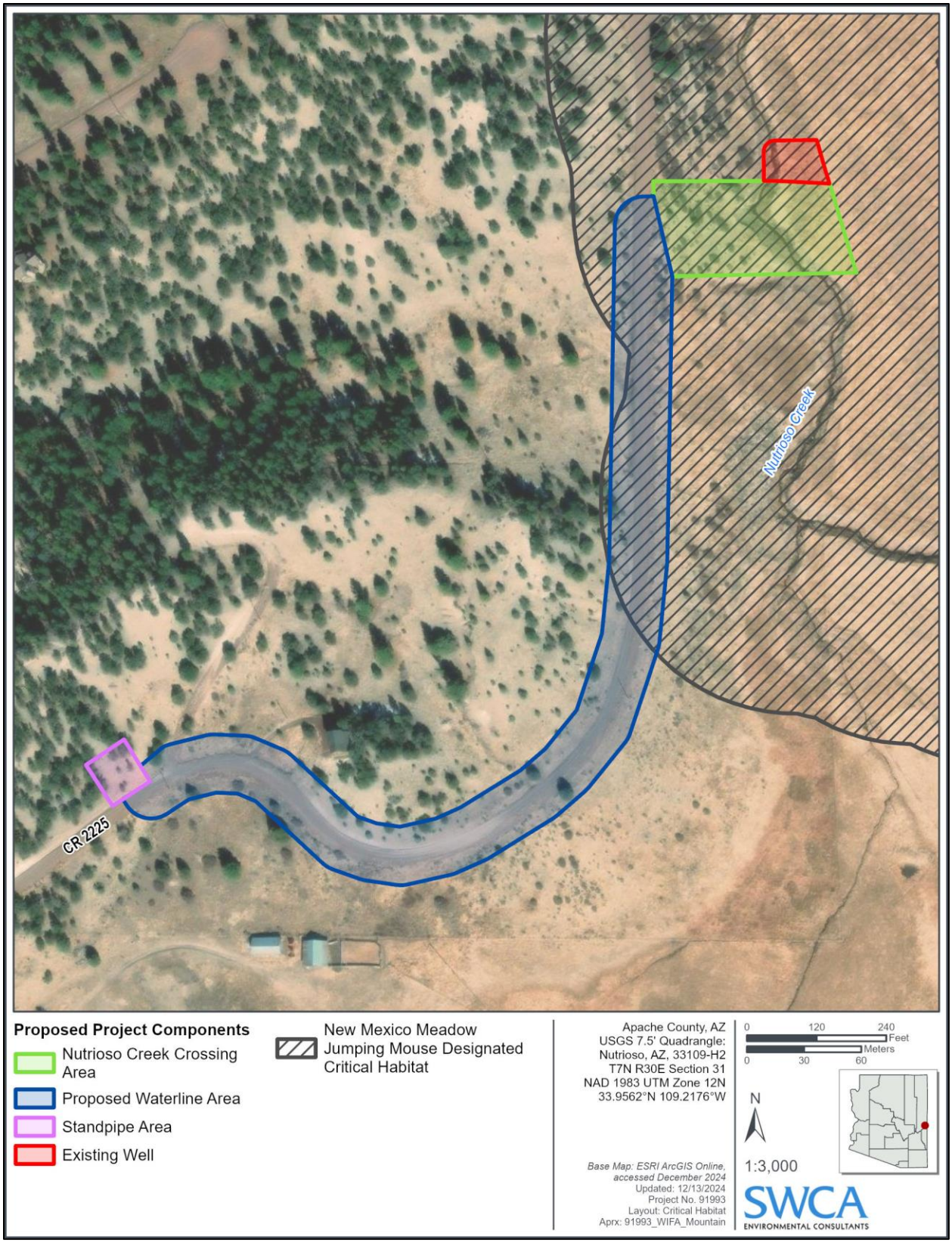


Figure 5. Designated critical habitat in the project area.

Figure 6. Photo of Nutrioso Creek from top of bank.

Figure 7. Photo of Nutrioso Creek from creek bed.

7 CERTIFICATION AND ENVIRONMENTAL REVIEW CHECKLIST

ENVIRONMENTAL REVIEW CHECKLIST

Drinking Water Projects
Project Number: DW-136-2022

Please complete the following checklist to allow WIFA to determine the necessary environmental review requirements for the proposed project. Please contact Sara Konrad at (602) 364-1319 or skonrad@azwifa.gov with any questions.

Section 1. General Information

Applicant Name:	Escudilla Mountain Domestic Water Improvement District	Date:	04/09/2024
Project Contact:	Lorie Knobbe	Phone Number:	602 570-5591
Project Title:	Escudilla Mountain DWID Standpipe	Project Number:	DW-136-2022
Physical Location:	14 CR 2224 Nutrioso AZ 85932		

Section 2. Categorical Exclusions. A project for which the answer to any part of statement 1 is "yes" may be eligible for a Categorical Exclusion. However, if any of the statements from 1a. through 1e. is answered "yes," then the project is not eligible for a Categorical Exclusion. [A.A.C. R-18-15-106(B)]

		Yes	No	Comments/Documentation (as applicable)
1.	The project relates to existing infrastructure systems and involves minor upgrading, minor expansion of system capacity, rehabilitation (including functional replacement) of the existing system and system components, or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities.	○	◉	
1a.	The project involves new or relocated discharges to surface water or groundwater.	○	◉	
1b.	The project will likely result in the substantial increase in the volume or the loading of pollutant to the receiving water.	○	◉	
1c.	The project will provide capacity to serve a population 30% greater than the existing population.	○	◉	
1d.	A state or other regional growth plan or strategy does not support this project. *Answering "yes" indicates that the project is not supported.*	○	◉	
1e.	The project directly or indirectly involves or relates to upgrading or extending infrastructure systems primarily for the purposes of future development.	○	◉	

Section 3. Extraordinary Circumstances. [A.A.C. R-18-15-106(C)] If any of the following extraordinary circumstances apply to the project, it is not eligible for a Categorical Exclusion.

		Yes	No	Comments/Documentation (as applicable)
1.	The project is known or expected to have potentially significant adverse environmental impacts on the quality of the human environment either individually or cumulatively over time.	○	◉	
2.	The project is known or expected to have disproportionately high and adverse human health or environmental effects on any community,	○	◉	

5 of 7

	including minority, low-income, or federally-recognized Indian tribal communities.			
3.	The project is known or expected to significantly affect federally listed threatened or endangered species or their critical habitat.	○	◉	
4.	The project is known or expected to significantly affect national natural landmarks or any property with nationally significant historic, architectural, prehistoric, archeological, or cultural value, including but not limited to, property listed on or eligible for the Arizona or National Registers of Historic Places. http://azstateparks.com/SHPO/review.html	○	◉	
5.	The project is known or expected to significantly affect environmentally important natural resource areas such as:			
5a.	wetlands	○	◉	
5b.	floodplains	○	◉	
5c.	significant agricultural lands	○	◉	
5d.	aquifer recharge zones	○	◉	
5e.	wild and scenic rivers http://www.rivers.gov/arizona.php	○	◉	
5f.	significant fish or wildlife habitat	○	◉	
5g.	other environmentally important natural resource areas.	○	◉	
6.	The project is known or expected to cause significant adverse air quality effects.	○	◉	
7.	The project is known or expected to have a significant effect on the pattern and type of land use or growth and distribution of population, including altering the character of existing residential areas, or may not be consistent with state or local government, or federally-recognized Indian tribe approved land use or federal land management plans.	○	◉	
8.	The project is known or expected to cause significant public controversy about a potential environmental impact of the proposed action.	○	◉	
9.	The project is known or expected to be associated with providing financial assistance to a federal agency through an interagency agreement for a project that is known or expected to have potentially significant environmental impacts.	○	◉	
10.	The project is known or expected to conflict with federal, state, or local government, or federally-recognized Indian tribe environmental, resource-protection, or land-use laws or regulations.	○	◉	

Section 4. Special conditions

		Yes	No	Comments/Documentation (as applicable)
1.	The project is for planning purposes only and does not include design or construction. **If yes, the project may be exempt from environmental review requirements.*	○	◉	
2.	An Environmental Assessment under NEPA has been conducted for this project or earlier phases of this project. **If yes, provide a copy of the Environmental Assessment.*	○	◉	

CERTIFICATION AND AUTHORIZATION

☑ I certify that the information contained in this Environmental Review Checklist is, to the best of my knowledge, true, accurate and correct.

I hereby affirm that I, first: David last: Knobbe **am the** title: Board Chair **and I am authorized by Escudilla Mountain Domestic Water Improvement District to submit this Environmental Review Checklist on behalf of the organization for which I am acting.**

Go To Section

8 LITERATURE CITED

American Lung Association. 2023. Report Card: Arizona. Available at: https://www.lung.org/research/sota/city-rankings/states/arizona. Accessed November 2024.

Apache County. 2019a. *Apache County Comprehensive Plan*. Available at: https://www.apachecountyaz.gov/accnt_591117/site_591118/Documents/Comprehensive-Plan-Final-June-2019.pdf. Accessed November 2024.

———. 2019b. *Apache County Character Areas*. Available at: https://www.apachecountyaz.gov/accnt_591117/site_591118/Documents/Comp-Plan-CharacterAreas.pdf. Accessed November 2024.

———. 2019c. *Zoning Ordinance of Apache County, Arizona (Amended December 3, 2019)*. Available at: https://www.apachecountyaz.gov/accnt_591117/site_591118/Documents/Apache-County-Zoning-Ordinance-amended.pdf. Accessed November 2024.

———. 2024. *Apache County GIS*. Available at: https://apache-co.maps.arcgis.com/apps/webappviewer/index.html?id=2fdb74d76b734d4c98869038eae12aea. Accessed November 2024.

Arizona Department of Agriculture (ADA). 2024. Noxious Weeds. Available at: https://agriculture.az.gov/pestspest-control/agriculture-pests/noxious-weeds. Accessed November 2024.

Arizona Department of Environmental Quality (ADEQ). 2024a. EMaps. Available at: https://adeq.maps.arcgis.com/apps/webappviewer/index.html?id=e224fc0a96de4bcda4b0e37af3a4daec&showLayers=Counties;R18-11%20Appendix%20B%20-%20Lakes;R18-11%20Appendix%20B%20-%20Streams;. Accessed November 2024.

_____. 2024b. Air Quality. Nonattainment Areas. Available at: https://azdeq.gov/air-quality-nonattainment-areas. Accessed November 2024.

Arizona Game and Fish Department (AZGFD). 2013. The Apache and Navajo Counties Wildlife Connectivity Assessment: Report on Stakeholder Input. Available at: https://azgfd-portal-wordpress-pantheon.s3.amazonaws.com/wp-content/uploads/archive/ApacheNavajoCountiesLinkagesStakeholderReport_20130128.pdf. Accessed November 2024.

———. 2022. The Arizona Wildlife Conservation Strategy 2022 – 2032. Phoenix: Arizona Game and Fish Department. Available at: https://azgfd-wdw.s3.amazonaws.com/awcs-2022/documents/AWCS_Final_Approved_11-22.pdf. Accessed November 2024.

———. 2024a. Arizona Heritage Geographic Information System Arizona Game and Fish Department online environmental review tool. Available at: https://azhgis2.esri.com/. Accessed November 2024.

———. 2024b. Arizona Natural Heritage Program Species Abstracts. Available at: https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/cooperative-programs/az-natural-heritage-program/. Accessed November 2024.

Arizona Department of Water Resources (ADWR) 2024a. Assured and Adequate Water Supply Online Mapper. Available at: https://azwatermaps.azwater.gov/aaws/. Accessed November 2024.

_____. 2024b. Registry of wells in Arizona (Wells 55). Available at: https://azwatermaps.azwater.gov/wellreg. Accessed November 2024

Arizona Rare Plant Committee. n.d. [2001]. *Arizona Rare Plant Field Guide.* Washington, D.C.: U.S. Government Printing Office.

Ayers, Ethan. 2024. *Cultural Resources Survey for the Proposed Escudilla Mountain Domestic Water Improvement District Standpipe Project, Apache County, Arizona*. Report No. 24-792. SWCA Environmental Consultants, Tucson, Arizona.

Brown, D.E. (ed.). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.

Camfield, A.F., W.A. Calder, and L.L. Calder. 2020. Broad-tailed Hummingbird (*Selasphorus platycercus*), version 1.0. In Birds of the World (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Available at: https://birdsoftheworld-org.proxy.birdsoftheworld.org/bow/species/brthum/cur/habitat. Accessed November 2024.

Chambers, C.L. 2017. New Mexico meadow jumping mouse project radio telemetry draft summary. Jul – Sep 2017. School of Forestry, Northern Arizona University, Flagstaff, AZ, 14 pp.

Corman, T.E., and C. Wise-Gervais. 2005. *Arizona Breeding Bird Atlas*. Albuquerque: University of New Mexico Press.

Council on Environmental Quality. 1997. *Environmental Justice: Guidance Under the National Environmental Policy Act*. Available at: https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf. Accessed November 15, 2024.

Federal Emergency Management Agency (FEMA). 2024. Flood map service center. Available at: https://msc.fema.gov/portal/home. Accessed November 2024.

Federal Highway Administration. 2024. Coronado Trail Scenic Byway. Available at: https://fhwaapps.fhwa.dot.gov/bywaysp/byway/2059. Accessed December 2024.

Frey, J.K. 2017. Landscape Scale and Microhabitat of the Endangered New Mexico Meadow Jumping Mouse in the White Mountains, Arizona. *Journal of Fish and Wildlife Management* 8(1): 39–58.

Gladding, E. 2024a. Senior Biologist. Email communication with Shaula Hedwall, Ryan Gordon, and Jill Morrow, USFWS, regarding ESA species that may occur in project area. Tucson, Arizona: SWCA. Email.

_____. 2024b. Senior Biologist. Email communication with Audrey Owens, AGFD, regarding known locations of the Chiricahua leopard frog. Tucson, Arizona: SWCA. Email.

Google Earth. 2024. *Aerial imagery*. Available at: https://www.google.com/earth/. Accessed November 2024.

Lanely, L., S. Rogers, A. Fogle, D. Fogle, C. Burkam, D. Burkham, R. Clark, and J. Crosswhite. 2001. *Nutrioso Community Plan*. Available at: https://www.apachecountyaz.gov/accnt_591117/site_591118/Documents/Nutrioso-Community-Plan.pdf. Accessed November 2024.

Linkhart, B.D. and D.A. McCallum. 2020. Flammulated Owl (*Psiloscops flammeolus*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Available at: https://birdsoftheworld-org.proxy.birdsoftheworld.org/bow/species/flaowl/cur/habitat. Accessed November 2024.

Marks, J.S., D.L. Evans, and D.W. Holt. 2020. Long-eared Owl (Asio otus), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Available at: https://birdsoftheworld-org.proxy.birdsoftheworld.org/bow/species/loeowl/cur/habitat. Accessed November 2024.

Montana Natural Heritage Program. 2024. Montana Field Guides: Montane Vole – *Microtus montanus*. Available at: https://fieldguide.mt.gov/speciesDetail.aspx?elcode=AMAFF11020. Accessed November 2024.

Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of Danaus plexippus population in Arizona. *Journal of the Lepidopterists' Society* 69: 91–107.

National Park Service (NPS). 2024. Nationwide Rivers Inventory. Arizona. Available at: https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm. Accessed November 2024.

National Wild and Scenic Rivers System. 2024. Arizona. Managed by the Bureau of Land Management, National Park Service, NPS Partnership Rivers, U. S. Fish and Wildlife Service, U. S. Forest Service, and River Management Society. Available at: https://www.rivers.gov/arizona. Accessed November 2024.

Natural Resources Conservation Service (NRCS). 2024. Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed November 2024.

Smith, K.G., S.R. Wittenberg, R.B. Macwhirter, and K.L. Bildstein. 2020. Northern Harrier (Circus hudsonius), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Available at: https://birdsoftheworld-org.proxy.birdsoftheworld.org/bow/species/norhar2/cur/introduction. Accessed November 2024.

Southwest Bald Eagle Management Committee. 2024. Arizona Bald Eagle Nest Locations. Available at: https://www.swbemc.org/nestSites.html. Accessed November 2024.

Springer, J.D., M.L. Daniels, and M. Nazaire. 2009. Field Guide to the Forests and Mountain Plants of Northern Arizona: From the Mogollon Rim and White Mountains North. Ecological Restoration Institute, Flagstaff, Arizona.

Squires, J. R. and R. T. Reynolds. 2024. American Goshawk (Astur atricapillus), version 1.2. In Birds of the World (N. D. Sly, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Available at: https://birdsoftheworld-org.proxy.birdsoftheworld.org/bow/species/norgos/cur/introduction. Accessed November 2024.

U.S. Army Corps of Engineers (USACE). 2024. Western Mountains, Valleys, and Coast Final Draft Ratings. Available at: https://www.spl.usace.army.mil/Portals/17/docs/regulatory/JD/RegionalSupplements/WM_NWPL_Region_Draft%20Final.pdf. Accessed November 2024.

U.S. Census Bureau (Census Bureau). 2024a. *2022 American Community Survey 5-Year Selected Economic Characteristics, Apache County and the State of Arizona*. Available at: https://data.census.gov/table/ACSDP5Y2022.DP03?g=040XX00US04_050XX00US04001&d=ACS%205-Year%20Estimates%20Data%20Profiles. Accessed November 2024.

———. 2024b. *2022 American Community Survey 5-Year Demographic and Housing Estimates, Apache County and the State of Arizona*. Available at: https://data.census.gov/table/ACSDP5Y2022.DP05?g=040XX00US04_050XX00US04001&d=ACS%205-Year%20Estimates%20Data%20Profiles. Accessed November 2024.

U.S. Department of Agriculture (USDA). 1970. Formally Classified Lands. Available at: https://www.rd.usda.gov/files/1970l.pdf. Accessed November 2024.

U.S. Environmental Protection Agency (EPA). 2024a. TMDLs at Work: Nutrioso Creek. Available at: https://www.epa.gov/tmdl/tmdls-work-nutrioso-creek. Accessed December 2024.

———. 2024b. Sensitive receptors. Available at: https://www.epa.gov/newenglandhc/environmental-issues-concern-urban-communities-resources. Accessed November 2024.

———. 2024c. *EJScreen: Environmental Justice Screening and Mapping Tool*. Available at: https://www.epa.gov/ejscreen. Accessed November 2024.

U.S. Fish and Wildlife Service (USFWS). 1991. Loach Minnow (Tiaroga cobitis) Recovery Plan. U.S. Fish and Wildlife Service Region 2. Available at: https://ecos.fws.gov/docs/recovery_plan/910930f.pdf. Accessed November 2024.

———. 2007. Chiricahua Leopard Frog (*Rana chiricahuensis*) Final Recovery Plan. Available at: https://ecos.fws.gov/docs/recovery_plan/070604_v3.pdf. Accessed November 2024.

———. 2012a. Endangered and Threatened Wildlife and Plants; Endangered Status and Designations of Critical Habitat for Spikedace and Loach Minnow; Final Rule. *Federal Register* 77(36):10810–10932.

———. 2012b. Mexican Spotted Owl Recovery Plan, First Revision (*Strix occidentalis lucida*). Available at: https://ecos.fws.gov/docs/recovery_plan/MSO_Recovery_Plan_First_Revision_Dec2012.pdf. Accessed November 2024.

———. 2015. Endangered and Threatened Wildlife and Plants; Endangered Status for the Mexican Wolf; Final Rule. *Federal Register* 80(11):2488–2512.

———. 2016. Endangered and threatened wildlife and plants; designation of critical habitat for the New Mexico meadow jumping mouse. Federal Register 81(51):14264–14325.

———. 2019. *Amendment 1: Little Colorado Spinedace (Lepidomeda vittata) Recovery Plan*. U.S. Fish and Wildlife Service Southwest Region. Available at: https://ecos.fws.gov/docs/recovery_plan/Final%20APG%20Amendment_loach%20minnow_508%20Compliant.pdf. Accessed November 2024.

———. 2020a. Species Status Assessment Report for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), first revision. Available at: https://ecos.fws.gov/ServCat/DownloadFile/211849. Accessed November 2024.

———. 2020b. Monarch (*Danaus plexippus*) Species Status Assessment Report, version 2.1. September. Available at: https://ecos.fws.gov/ServCat/DownloadFile/191345. Accessed November 2024.

———. 2022. Endangered and Threatened Wildlife and Plants; Revision to the Nonessential Experimental Population of the Mexican Wolf. Federal Register 87(126):39348–39373.

———. 2023. Little Colorado Spinedace (*Lepidomeda vittata*) 5-Year Status Review: Summary and Evaluation. Available at: https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/4113.pdf. Accessed November 2024.

———. 2024a. National Wetlands Inventory. Available at: https://www.fws.gov/wetlands/data/mapper.html. Accessed November 2024.

———. 2024b. Information for Planning and Consultation. Available at: https://ecos.fws.gov/ipac/. Accessed October 2024.

———. 2024c. Environmental Conservation Online (ECOS): Mexican spotted owl (*Strix occidentalis lucida*). Available at: https://ecos.fws.gov/ecp/species/8196. Accessed November 2024.

———. 2024d. FWS R2 ES Collared Mexican Wolf Project Public Location Map. Available at: https://www.arcgis.com/home/webmap/viewer.html?webmap=dbcc9960867948aea225fc53c50d0ed0&extent=-110.6313,32.9752,-106.5746,34.932. Accessed November 2024.

———. 2024e. ECOS Species Reports. Available at: https://ecos.fws.gov/ecp/species-reports. Accessed November 2024.

U.S. Geological Survey (USGS). 2024. The National Map, Interactive Map Viewer and Downloader. Topographic maps of the evaluation area, including National Hydrology and Watershed Boundary Datasets. Available at: https://viewer.nationalmap.gov/advanced-viewer/. Accessed November 2024.

Western Monarch Milkweed Mapper. 2024. Sightings Map. Available at: https://www.monarchmilkweedmapper.org/app/#/combined/map. Accessed November 2024.

Wrigley, M.J. 2018. *Biological Assessment Guidebook*. V. 3.1. Lakewood, Colorado: National Park Service Intermountain Region. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd639466.pdf. Accessed November 2024.

APPENDIX A

Contact Information for Environmental Regulatory Agencies

Important Farmland / Agricultural Wetlands
Scott Woodall
Natural Resources Conservation Service, Arizona State Office
230 North First Avenue, Suite 509
Phoenix, Arizona 85003-1733
(602) 280-8837
scott.woodall@usda.gov
http://www.az.nrcs.usda.gov/

Floodplains
Lisa Holm, Regional Environmental Officer
FEMA R IX-U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, California 94607-4052
(510) 627-7162
lisa.holm@fema.dhs.gov

Endangered Species (*must contact both state and federal agencies*)
Ginger Ritter, Project Evaluation Program Supervisor
Arizona Game and Fish Department - WMHB
5000 West Carefree Highway
Phoenix, Arizona 85086
(623) 236-7602
gritter@azgfd.gov and
pep@azgfd.gov
Online Environmental Review Tool: https://azhgis2.esri.com/

AND

Kevin Russell
U.S. Department of the Interior, Fish and Wildlife Service
9828 North 31st Avenue #C3
Phoenix, Arizona 85051-2517
(602) 242-0210

Shaula Hedwall
U.S. Department of the Interior, Fish and Wildlife Service
Assistant Field Supervisor for Northern Arizona, SW Forest Service Science Complex
2500 South Pine Knoll Drive
Flagstaff, Arizona 86001
(928) 556-2118

Julie McIntyre
U.S. Department of the Interior, Fish and Wildlife Service
Assistant Field Supervisor for Southern Arizona, Tucson Sub-Office
201 North Bonita Avenue, Suite 141
Tucson, Arizona 85745
(520) 670-6144

incomingazcorr@fws.gov
www.fws.gov/southwest/es/arizona/default.htm

Water Quality
Dodie Obier, Water Quality Division Director
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007
(602) 771-2321
Dodie.obier@azdeq.gov

AND

Sallie Diebolt, Arizona Section Chief
U.S. Army Corps of Engineers, Arizona Section Regulatory Branch
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012
(602) 230-6949
sallie.diebolt@usace.army.mil
www.spl.usace.army.mil/pd/az/fpsm.html

Air Quality
Daniel Czecholinski, Air Quality Division Director
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007
(602) 771-4684
Czecholinski.daniel@azdeq.gov
oac@azdeq.gov

Water Quantity
David McKay, Manager
Recharge, Assured & Adequate Water Supply Programs
Water Management Division
Arizona Department of Water Resources
1110 West Washington Street, Suite 310
Phoenix, Arizona 85012
602-771-8104
assuredadequate@azwater.gov

Wilderness Areas
Amy McGowan
U.S. Department of Interior
Bureau of Land Management
One North Central Ave, Ste 800
Phoenix, Arizona 85004-4427
(602) 417-9489
amarkstein@blm.gov

Wild and Scenic Rivers *(projects within 1 mile of Fossil Creek and Verde River)*
Fossil Creek
Elizabeth Munding
Red Rock Ranger District, Coconino National Forest
8375 State Route 179
Sedona, Arizona 86351
(928) 203-2914

elizabeth.a.munding@usda.gov

Verde River
Kevin Hurrell
Prescott National Forest
344 South Cortez Street
Prescott, Arizona 86303
(928) 443-8000
Kevin.Hurrell@usda.gov
www.rivers.gov/wildriverslist.html

National Rivers Inventory
Ericka Pilcher
National Park Service
Rivers, Trails & Conservation Assistance Program
RTCA_Apps_IMR@nps.gov
https://www.nps.gov/orgs/rtca/contactus.htm

APPENDIX B

USFWS Information for Planning and Consultation Report

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arizona Ecological Services Field Office
9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517
Phone: (602) 242-0210 Fax: (602) 242-2513

In Reply Refer To: 10/15/2024 20:36:21 UTC
Project Code: 2025-0006072
Project Name: WIFA Escudilla Mountain DWID Standpipe Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The Fish and Wildlife Service (Service) is providing this list under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The list you have generated identifies threatened, endangered, proposed, and candidate species, and designated and proposed critical habitat, that *may* occur within the One-Range that has been delineated for the species (candidate, proposed, or listed) and it's critical habitat (designated or proposed) with which your project polygon intersects. These range delineations are based on biological metrics, and do not necessarily represent exactly where the species is located. Please refer to the species information found on ECOS to determine if suitable habitat for the species on your list occurs in your project area.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect federally listed species and/or designated critical habitat. A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.
If the Federal action agency determines that listed species or critical habitat *may be affected* by a federally funded, permitted or authorized activity, the agency must consult with us pursuant to 50 CFR 402. Note that a "may affect" determination includes effects that may not be adverse and that may be beneficial, insignificant, or discountable. An effect exists even if only one individual

or habitat segment may be affected. The effects analysis should include the entire action area, which often extends well outside the project boundary or "footprint." For example, projects that involve streams and river systems should consider downstream affects. If the Federal action agency determines that the action may jeopardize a *proposed* species or may adversely modify *proposed* critical habitat, the agency must enter into a section 7 conference. The agency may choose to confer with us on an action that may affect proposed species or critical habitat.

Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event they become proposed or listed prior to project completion. More information on the regulations (50 CFR 402) and procedures for section 7 consultation, including the role of permit or license applicants, can be found in our Endangered Species Consultation Handbook at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf.

We also advise you to consider species protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668 *et seq.*). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the Service. The Eagle Act prohibits anyone, without a permit, from taking (including disturbing) eagles, and their parts, nests, or eggs. Currently 1,026 species of birds are protected by the MBTA, including the western burrowing owl (*Athene cunicularia hypugaea*). Protected western burrowing owls can be found in urban areas and may use their nest/burrows year-round; destruction of the burrow may result in the unpermitted take of the owl or their eggs.

If a bald eagle or golden eagle nest occurs in or near the proposed project area, our office should be contacted for Technical Assistance. An evaluation must be performed to determine whether the project is likely to disturb or harm eagles. The National Bald Eagle Management Guidelines provide recommendations to minimize potential project impacts to bald eagles (see https://www.fws.gov/law/bald-and-golden-eagle-protection-act and https://www.fws.gov/program/eagle-management).

The Division of Migratory Birds (505/248-7882) administers and issues permits under the MBTA and Eagle Act, while our office can provide guidance and Technical Assistance. For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following web site: https://www.fws.gov/program/migratory-bird-permit. Guidance for minimizing impacts to migratory birds for communication tower projects (e.g. cellular, digital television, radio, and emergency broadcast) can be found at https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation.

The U.S. Army Corps of Engineers (Corps) may regulate activities that involve streams (including some intermittent streams) and/or wetlands. We recommend that you contact the Corps to determine their interest in proposed projects in these areas. For activities within a National Wildlife Refuge, we recommend that you contact refuge staff for specific information about refuge resources, please visit this link or visit https://www.fws.gov/program/national-

wildlife-refuge-system to locate the refuge you would be working in or around.

If your action is on tribal land or has implications for off-reservation tribal interests, we encourage you to contact the tribe(s) and the Bureau of Indian Affairs (BIA) to discuss potential tribal concerns, and to invite any affected tribe and the BIA to participate in the section 7 consultation. In keeping with our tribal trust responsibility, we will notify tribes that may be affected by proposed actions when section 7 consultation is initiated. For more information, please contact our Tribal Coordinator, John Nystedt, at 928/556-2160 or John_Nystedt@fws.gov.

We also recommend you seek additional information and coordinate your project with the Arizona Game and Fish Department. Information on known species detections, special status species, and Arizona species of greatest conservation need, such as the western burrowing owl and the Sonoran desert tortoise (*Gopherus morafkai*) can be found by using their Online Environmental Review Tool, administered through the Heritage Data Management System and Project Evaluation Program (https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/project-evaluation-program/).

We appreciate your concern for threatened and endangered species. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If we may be of further assistance, please contact our Flagstaff office at 928/556-2118 for projects in northern Arizona, our general Phoenix number 602/242-0210 for central Arizona, or 520/670-6144 for projects in southern Arizona.

Sincerely,
/s/

Heather Whitlaw
Field Supervisor
Attachment

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arizona Ecological Services Field Office
9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517
(602) 242-0210

PROJECT SUMMARY

Project Code: 2025-0006072
Project Name: WIFA Escudilla Mountain DWID Standpipe Project
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: standpipe and waterline construction project
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.95622,-109.21669947285292,14z

Counties: Apache County, Arizona

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Mexican Wolf *Canis lupus baileyi* Population: U.S.A. (portions of AZ and NM)see 17.84(k) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3916	Experimental Population, Non-Essential
New Mexico Meadow Jumping Mouse *Zapus hudsonius luteus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7965	Endangered

BIRDS

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

AMPHIBIANS

NAME	STATUS
Chiricahua Leopard Frog *Rana chiricahuensis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1516	Threatened

FISHES

NAME	STATUS
Little Colorado Spinedace *Lepidomeda vittata* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6640	Threatened
Loach Minnow *Tiaroga cobitis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6922	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
New Mexico Meadow Jumping Mouse *Zapus hudsonius luteus* https://ecos.fws.gov/ecp/species/7965#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE

SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

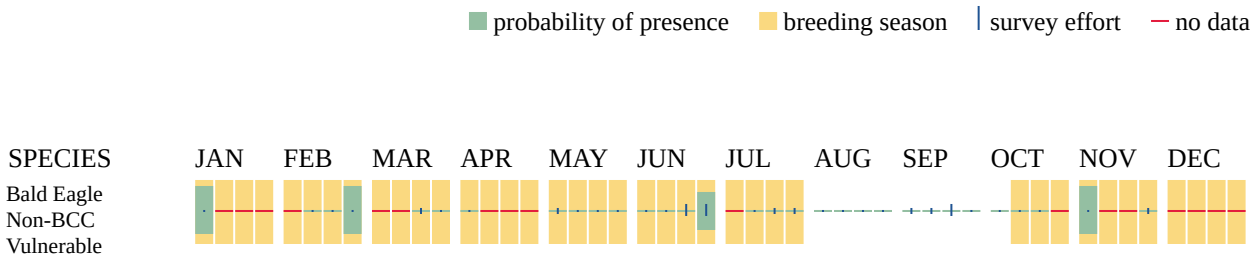
Probability of Presence (▪)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31
Black-throated Gray Warbler *Setophaga nigrescens* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9584	Breeds May 1 to Jul 20
Broad-tailed Hummingbird *Selasphorus platycercus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11935	Breeds May 25 to Aug 21

NAME	BREEDING SEASON
Cordilleran Flycatcher *Empidonax occidentalis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11949	Breeds Apr 25 to Jul 25
Evening Grosbeak *Coccothraustes vespertinus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465	Breeds May 15 to Aug 10
Flammulated Owl *Psiloscops flammeolus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7728	Breeds May 10 to Aug 15
Grace's Warbler *Setophaga graciae* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9514	Breeds May 20 to Jul 20
Lewis's Woodpecker *Melanerpes lewis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-eared Owl *asio otus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay *Gymnorhinus cyanocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Plumbeous Vireo *Vireo plumbeus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11933	Breeds May 10 to Aug 5
Red-faced Warbler *Cardellina rubrifrons* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9578	Breeds May 10 to Jul 15

NAME	BREEDING SEASON
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

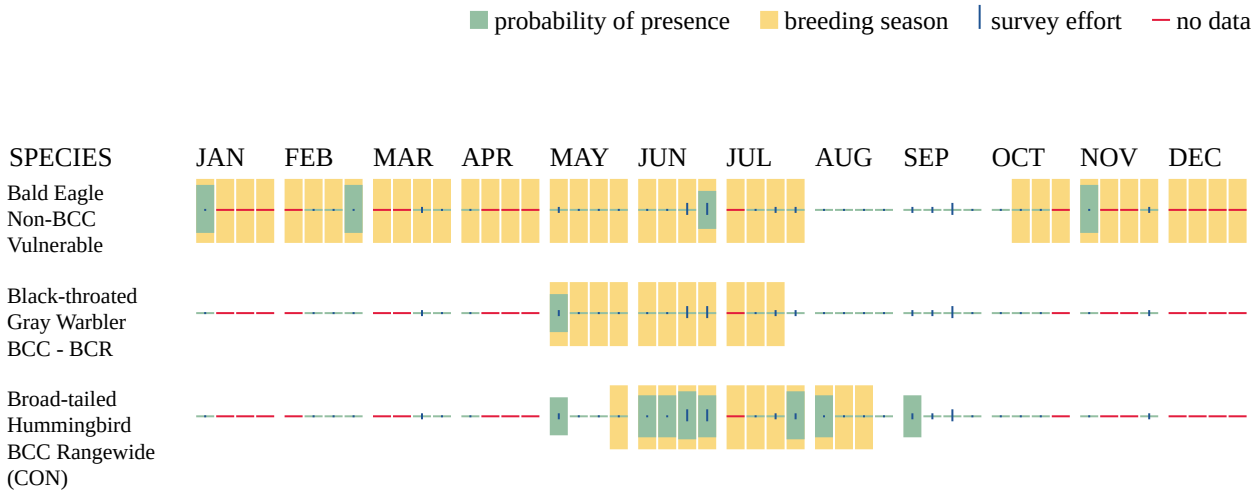
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBH

IPAC USER CONTACT INFORMATION

Agency: Arizona Water Infrastructure Finance Authority
Name: Meggan Dugan
Address: 20 E Thomas Road
Address Line 2: Ste 1700
City: Phoenix
State: AZ
Zip: 85012
Email mdugan@swca.com
Phone: 6022743831

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Environmental Protection Agency

APPENDIX C

AZGFD Arizona Heritage Geographic Information System Environmental Review Tool

Arizona Environmental Online Review Tool Report

Arizona Game and Fish Department Mission
To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

The Department requests further coordination to provide project/species specific recommendations. Please use the Project Evaluation Form to submit your project to the Project Evaluation Program at PEP@azgfd.gov.

Project Name:

Escudilla Mountain Domestic Water Improvement District Standpipe Project (DW038-2025)

Project Type:

Water Use, Transfer, and Channel Activities, Water delivery and supply line or effluent delivery line (operated by municipality or water company), New lines or expansion of existing lines

Project ID:

HGIS-23588

Project Description:

The proposed project includes equipping of an existing well, and installation of approximately 0.43 miles (2,270 linear feet) of waterline and a standpipe to provide a local domestic water source for residents within the EMDWID.

Contact Person:

Erica Fraley

Organization:

SWCA, Inc.

On Behalf Of:

OTHER_STATE

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. Arizona Wildlife Conservation Strategy (AWCS), specifically Species of Greatest Conservation Need (SGCN), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

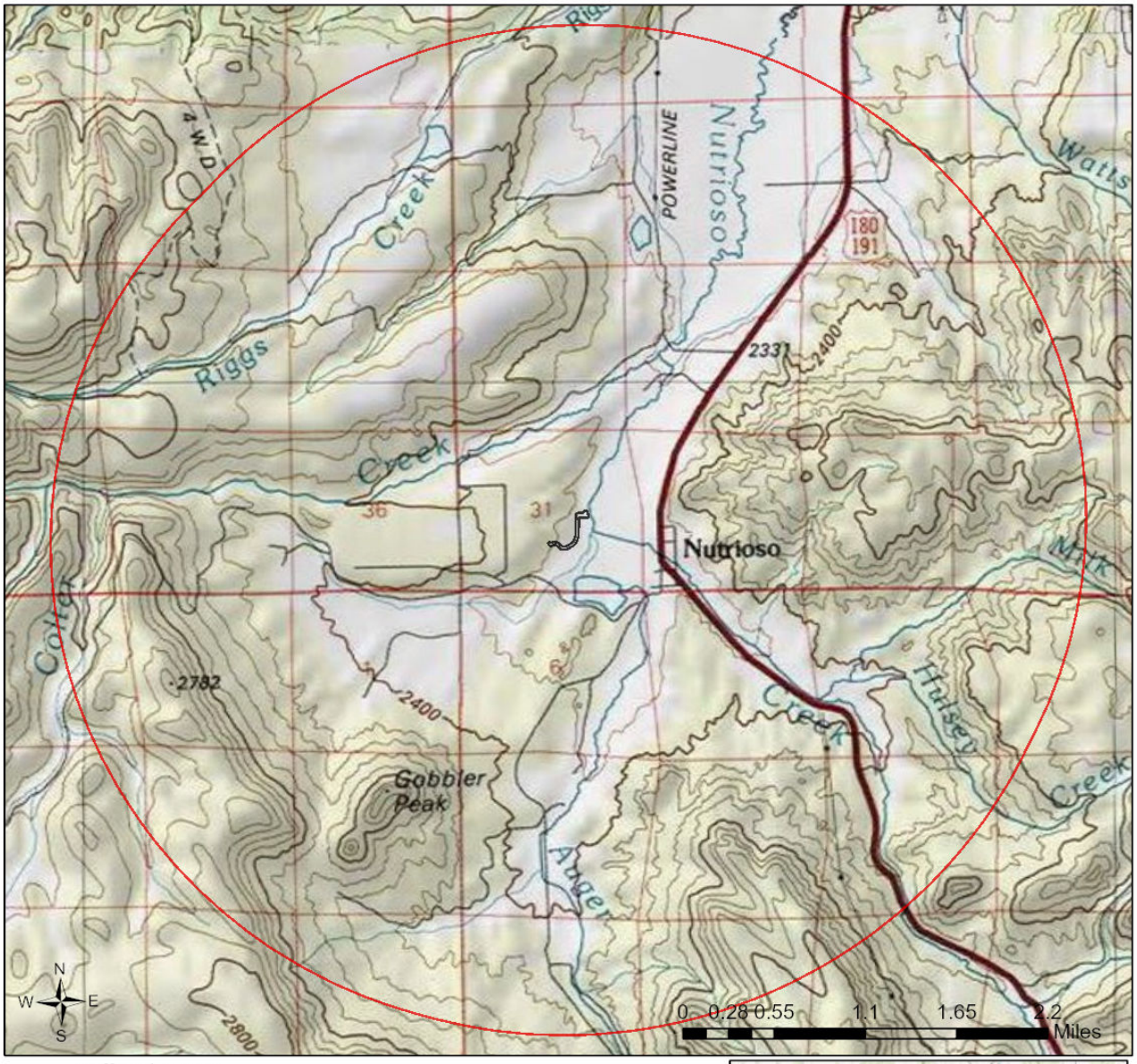
Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
   Project Evaluation Program, Habitat Branch
   Arizona Game and Fish Department
   5000 West Carefree Highway
   Phoenix, Arizona 85086-5000
   Phone Number: (623) 236-7600
   Fax Number: (623) 236-7366
   Or
   PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.

scudilla Mountain Domestic Water Improvement District Standpipe Project (DW038-202

USA Topo Basemap With Locator Map



Buffered Project Boundary

Project Boundary

Project Size (acres): 5.65

Lat/Long (DD): 33.9547 / -109.2176

County(s): Apache

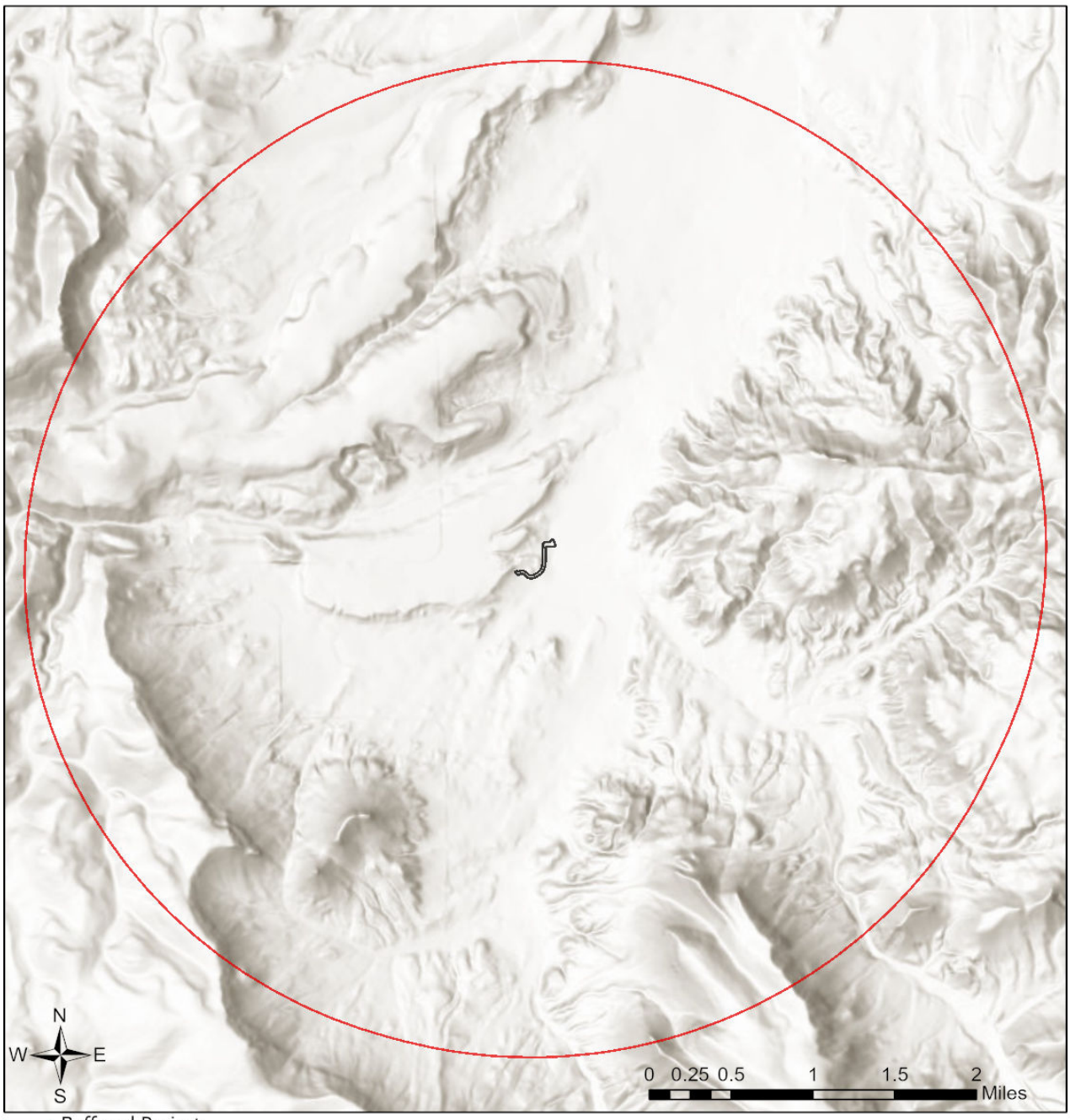
AGFD Region(s): Pinetop

Township/Range(s): T7N, R30E

USGS Quad(s): NUTRIOSO

scudilla Mountain Domestic Water Improvement District Standpipe Project (DW038-202

Web Map As Submitted By User



Buffered Project Boundary

Project Boundary

Project Size (acres): 5.65

Lat/Long (DD): 33.9547 / -109.2176

County(s): Apache

AGFD Region(s): Pinetop

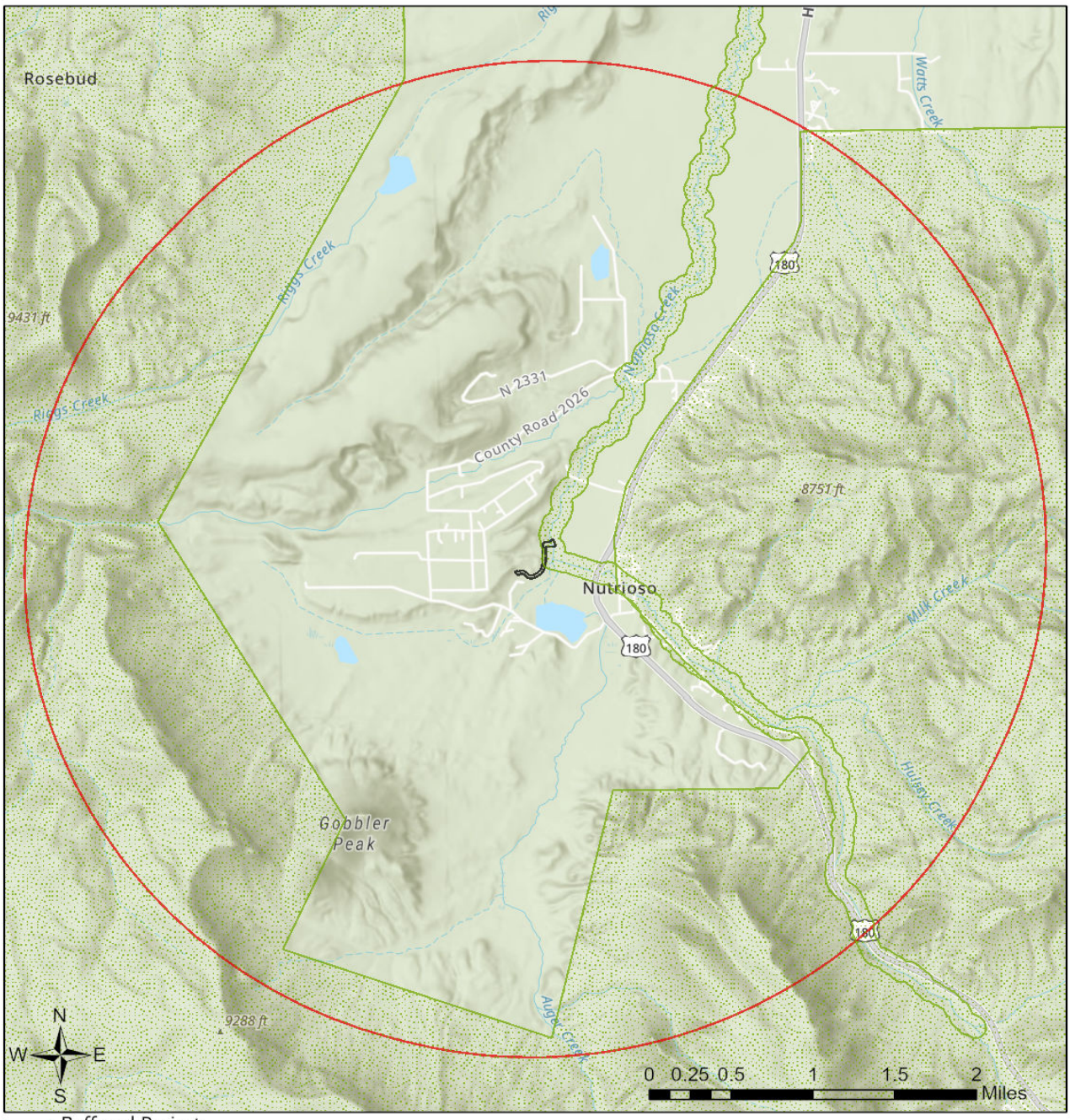
Township/Range(s): T7N, R30E

USGS Quad(s): NUTRIOSO

Esri, NASA, NGA, USGS, FEMA

scudilla Mountain Domestic Water Improvement District Standpipe Project (DW038-202

Important Areas



- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Wildlife Connectivity

Project Size (acres): 5.65

Lat/Long (DD): 33.9547 / -109.2176

County(s): Apache

AGFD Region(s): Pinetop

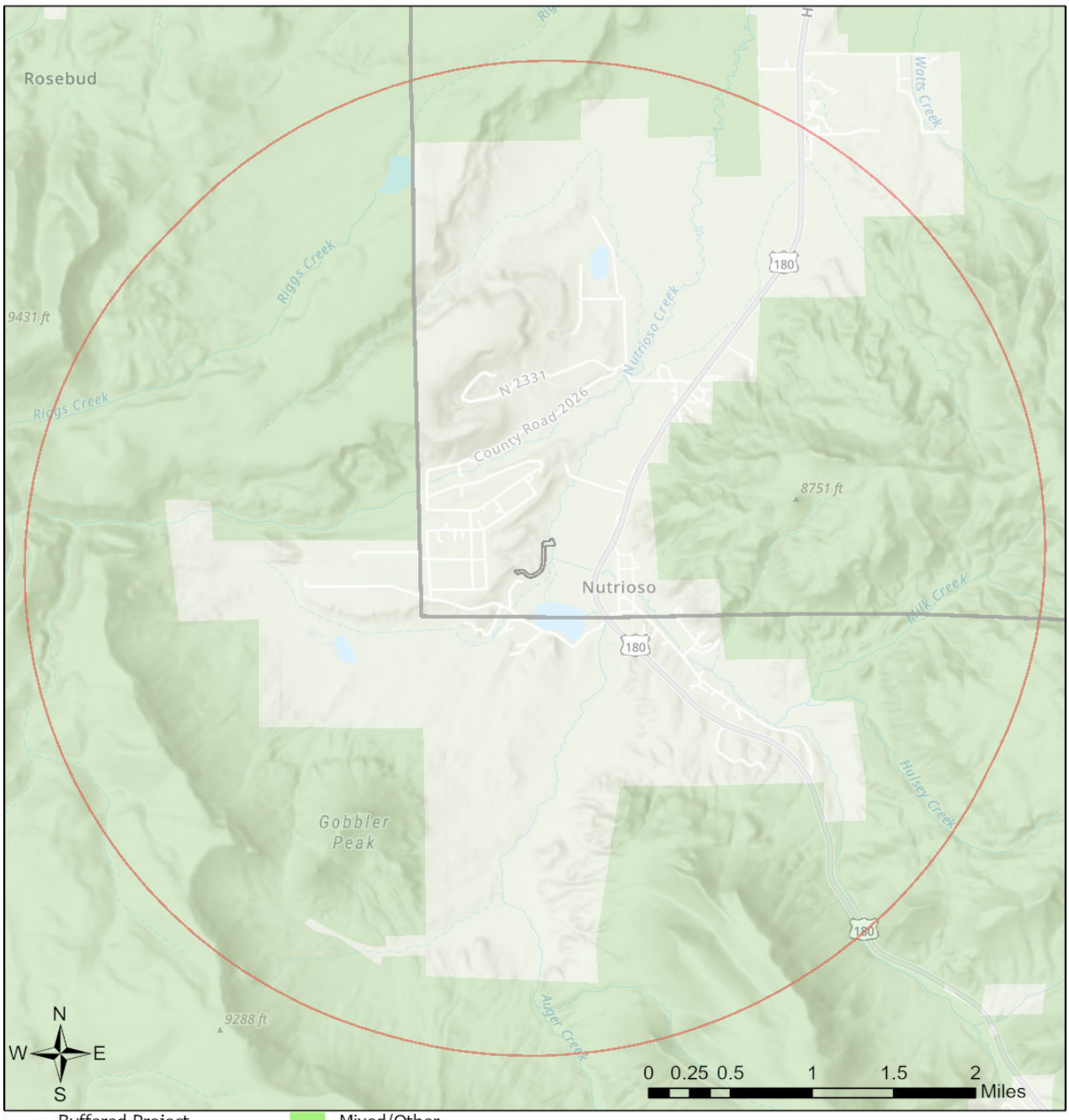
Township/Range(s): T7N, R30E

USGS Quad(s): NUTRIOSO

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

scudilla Mountain Domestic Water Improvement District Standpipe Project (DW038-202

Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 5.65

Lat/Long (DD): 33.9547 / -109.2176

County(s): Apache

AGFD Region(s): Pinetop

Township/Range(s): T7N, R30E

USGS Quad(s): NUTRIOSO

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

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Accipiter atricapillus	American Goshawk	SC	S	S		2
Asio otus	Long-eared Owl					2
Astragalus nutriosensis	Nutrioso Milk-vetch	SC			SR	
Canis lupus baileyi	Mexican Wolf	LE,XN		S		1
Circus hudsonius	Northern Harrier					2
Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	SC, BGA	S	S		
Lepidomeda vittata	Little Colorado Spinedace	LT		S		1
Microtus montanus	Montane Vole					2
Packera hartiana	Hart's Groundsel	SC			SR	
Psiloscops flammeolus	Flammulated Owl					2
Salix bebbiana	Bebb's Willow		S			
Selasphorus platycercus	Broad-tailed Hummingbird					2
Strix occidentalis lucida	Mexican Spotted Owl	LT		S		1
Zapus hudsonius luteus	New Mexico Meadow Jumping Mouse	LE	S			1

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
CH for Zapus hudsonius luteus	New Mexico Jumping Mouse Designated Critical Habitat					
Nutrioso Creek middle - USFS Boundary upstream to confluence with Hulsey Creek	Conservation Opportunity Area					
Nutrioso Rudd	Conservation Opportunity Area					

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Accipiter atricapillus	American Goshawk	SC	S	S		2
Aechmophorus clarkii	Clark's Grebe					2
Aechmophorus occidentalis	Western Grebe					2
Anaxyrus microscaphus	Arizona Toad	SC		S		2
Anodonta californiensis	California Floater	SC	S			1
Aquila chrysaetos	Golden Eagle			S		2
Asio otus	Long-eared Owl					2
Buteo regalis	Ferruginous Hawk	SC		S		2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Buteogallus anthracinus	Common Black Hawk					2
Callospermophilus lateralis	Golden-mantled Ground Squirrel					2
Canis lupus baileyi	Mexican Wolf	LE,XN		S		1
Cardellina rubrifrons	Red-faced Warbler					2
Catharus ustulatus	Swainson's Thrush					2
Catostomus discobolus	Bluehead Sucker	PS		S		2
Catostomus sp. 3	Little Colorado Sucker	CCA	S	S		2
Chordeiles minor	Common Nighthawk					2
Cinclus mexicanus	American Dipper					2
Coccothraustes vespertinus	Evening Grosbeak					2
Contopus cooperi	Olive-sided Flycatcher	SC				2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1
Cyrtonyx montezumae	Montezuma Quail					3
Dumetella carolinensis	Gray Catbird		S			3
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE		S		1
Empidonax wrightii	Gray Flycatcher					2
Euderma maculatum	Spotted Bat	SC	S	S		2
Eugenes fulgens	Rivoli's Hummingbird					2
Falco mexicanus	Prairie Falcon					2
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1
Falco sparverius	American Kestrel					2
Glaucidium gnoma californicum	Northern Pygmy-owl					2
Gymnorhinus cyanocephalus	Pinyon Jay	UR		S		2
Haemorhous cassinii	Cassin's Finch					2
Haliaeetus leucocephalus	Bald Eagle	SC	S	S		1
Icterus bullockii	Bullock's Oriole					2
Idionycteris phyllotis	Allen's Lappet-browed Bat	SC	S	S		2
Lasiurus cinereus	Hoary Bat					2
Lepidomeda vittata	Little Colorado Spinedace	LT		S		1
Megascops kennicottii	Western Screech-owl					2
Melanerpes lewis	Lewis's Woodpecker					2
Microtus longicaudus	Long-tailed Vole					3
Microtus montanus	Montane Vole					2
Myadestes townsendi	Townsend's Solitaire					2
Myotis auriculus	Southwestern Myotis					2
Myotis thysanodes	Fringed Myotis	SC				2
Myotis yumanensis	Yuma Myotis	SC				2
Neotamias cinereicollis	Gray-collared Chipmunk					2
Neotamias minimus	Least Chipmunk		S			2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Neotoma mexicana mexicana	Mexican Woodrat					2
Neotoma stephensi	Stephen's Woodrat					2
Nyctinomops macrotis	Big Free-tailed Bat	SC				2
Oreohelix houghi	Diablo Mountainsnail					2
Passerculus sandwichensis	Savannah Sparrow					2
Patagioenas fasciata	Band-tailed Pigeon					2
Peucedramus taeniatus	Olive Warbler					3
Pooecetes gramineus	Vesper Sparrow					2
Psiloscops flammeolus	Flammulated Owl					2
Rallus limicola	Virginia Rail					3
Rana chiricahuensis	Chiricahua Leopard Frog	LT		S		1
Rana pipiens	Northern Leopard Frog		S	S		1
Setophaga graciae	Grace's Warbler					2
Setophaga nigrescens	Black-throated Gray Warbler					2
Sorex navigator	Western Water Shrew		S			2
Strix occidentalis lucida	Mexican Spotted Owl	LT		S		1
Sylvilagus nuttallii pinetis	A Southwestern Cottontail					3
Tadarida brasiliensis	Brazilian Free-tailed Bat					2
Zapus hudsonius luteus	New Mexico Meadow Jumping Mouse	LE	S			1

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Cervus elaphus	Elk					
Meleagris gallopavo	Wild Turkey					
Odocoileus hemionus	Mule Deer					
Patagioenas fasciata	Band-tailed Pigeon					
Puma concolor	Mountain Lion					
Sciurus aberti	Abert's Squirrel					
Tamiasciurus hudsonicus mogollonensis	Red Squirrel					
Zenaida macroura	Mourning Dove					

Project Type: Water Use, Transfer, and Channel Activities, Water delivery and supply line or effluent delivery line (operated by municipality or water company), New lines or expansion of existing lines

Project Type Recommendations:
Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at https://www.invasivespeciesinfo.gov/unitedstates/az.shtml and the Arizona Native Plant Society https://aznps.com/invas for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at https://imap.natureserve.org/imap/services/page/map.html.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select “See What’s Here” for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches.

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

Project Location and/or Species Recommendations:
HDMS records indicate that one or more native plants listed on the **Arizona Native Plant Law and Antiquities Act** have been documented within the vicinity of your project area. Please contact:
Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373
https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf starts on page 44

Analysis indicates that your project is located in the vicinity of an identified **Conservation Opportunity Area (COA)**. While there are many areas in Arizona that present abundant conservation opportunities, COAs are specific areas on the landscape that the Department identified as having the greatest potential for conservation efforts. COAs were identified using species and habitat data, the presence of unique landscape features, and Departmental expertise. COAs range in size, scope, and focal species and/or habitats and are strictly a non-regulatory conservation tool for the public and our conservation partners to consider. For more information regarding this particular COA near your project area and the Department's suggestions for potential conservation efforts, please visit the COA profile at https://awcs.azgfd.com/conservation-opportunity-areas.

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at https://www.fws.gov/office/arizona-ecological-services or:

Phoenix Main Office
9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office
201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office
SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

APPENDIX D

Sample Letter to Resource Agencies

ESCUDILLA MOUNTAIN
DOMESTIC WATER IMPROVEMENT DISTRICT

December 19, 2024

[Name and Address of Resource Agency]

RE: Escudilla Mountain Domestic Water Improvement District Standpipe Project (DW-038-2025) Environmental Information Document

Dear [Contact Name]:

The Escudilla Mountain Domestic Water Improvement District (EMDWID) is proposing to construct a standpipe to provide a local domestic water source for residents within the EMDWID, along with equipping an existing well, and installing new waterline to connect the new standpipe with the existing well. The EMDWID encompasses approximately 496 acres of privately-owned land within Section 31, Township 7 North, Range 30 East, Gila and Salt River Baseline and Meridian. The EMDWID serves a portion of the unincorporated community of Nutrioso, located in Apache County, Arizona. The 76 properties within the EMDWID include a mix of vacant parcels, unimproved parcels used for camping, and developed parcels used by both full-time and seasonal residents. Current water demand is estimated at 310,000 gallons/year with a projected future demand estimated at up to 3,467,500 gallons/year. Currently, there are no municipal water services within the EMDWID and residents must either source water from private wells or haul water in from other areas. Construction of the proposed project would result in the temporary disturbance of up to 5.7 acres, with a permanent disturbance area of up to 0.21 acres associated with the well site and standpipe area. The timeline for construction is anticipated to require up to 12 weeks, beginning in spring of 2025.

The existing well (Well #55-565311), located on approximately 0.06 acres of EMDWID-owned land (Apache County Parcel #102-64-080) east of Nutrioso Creek, was originally drilled in 1997 as an exempt well for domestic purposes but never put into production. Current production of this well averages 18.65 gallons/minute. The proposed project would install a perimeter chain link fence and equip the well with a pump, filtration system, and power source. Power would be generated either on-site via installation of solar panels, or via interconnection with an adjacent electrical distribution line. Construction vehicles and equipment would access the well site from United States Highway 191 (US 191) through the privately-owned Apache County Parcel # 102-45-002E via existing unimproved private roads. Construction of the perimeter fence may temporarily disturb the area up to 20 feet around the well parcel.

The standpipe would be located on an up to 0.15-acre portion of the southeastern portion of a 3.75-acre private parcel (Apache County Parcel #102-64-057) on the north side of County Road 2225 (Tanner Trail). The standpipe area would be leased from the private landowner. The standpipe area would be graded and leveled to accommodate construction of a graveled driveway with a turnaround off County Road 2225 (Tanner Trail) to access the standpipe.

The well would be connected to the standpipe via an approximately 0.43-mile (2,270 linear feet) waterline. The waterline would cross Nutrioso Creek south and west of the well site along a 20-foot-wide easement at the property line between privately-owned Apache County Parcels #102-64-042 and #102-64-041, and then follow the County Road 2225 (Tanner Trail) easement to the standpipe location.

Contact
602-570-5591
lorie.knobbe@gmail.com
www.emdwid.com

Address
PO Box 371
Nutrioso, AZ
85932-0371

The waterline would be installed across Nutrioso Creek either via directional boring under the creek or by suspending the waterline above the creek. The waterline would be installed via trenches, which would consist of digging at a minimum depth of 76 inches and a width of 36 inches to allow adequate room for installation. If directional boring is used for the Nutrioso Creek crossing, installation would require additional excavation on either side of the creek to place the waterline below the grade of the creek. Following installation, trenches would be backfilled with the excavated soils and crushed rock/gravel, compacted, and reseeded with a native vegetation seed mix where necessary. The construction disturbance area would be approximately 50 feet wide along the length of the installation route and up to 100 feet wide at the Nutrioso Creek crossing.

The proposed project is requesting funds from the DWSRF administered by the WIFA. WIFA's environmental review process includes preparation of the attached Environmental Information Document, as well as solicitation of comments from all potentially concerned parties.

The EMDWID is requesting your agency's review of the enclosed Environmental Information Document. Please provide correspondence back to my attention either in writing or email with a statement of whether the project has any impact to your agency, or any mitigation suggestions your agency may have regarding the project to be included in upcoming project design.

Please respond within 30 days. If you need any further information or have any questions regarding the project, please contact me at (602) 317-1865.

Please direct your written or email response to:

Meggan Dugan, Principal Environmental Planner
SWCA Environmental Consultants
1750 S Woodlands Village Blvd, Suite 200
Flagstaff, Arizona 86001
mdugan@swca.com

and please copy this response to:

Lindsay Mills
Environmental Program Specialist
Water Infrastructure Finance Authority of AZ.
3300 N Central Ave. Suite 1050, Phoenix, AZ 85012
LMills@azwifa.gov

Thank you for your attention to this matter.

Respectfully,

David Knobbe
Escudilla Mountain DWID Board Chairman
david.knobbe@yahoo.com

cc: Lindsay Mills, WIFA

Contact
602-570-5591
lorie.knobbe@gmail.com
www.emdwid.com

Address
PO Box 371
Nutrioso, AZ
85932-0371