Environmental Assessment

for the

Town of Chino Valley, Arizona

Municipal Water System Improvement Project

U.S. Environmental Protection Agency

Region 9

75 Hawthorne Street

San Francisco, California 94105

November 2016

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ACRONYMS

ADEQ	Arizona Department of Environmental Quality
APE	Area of potential effect
AQCR	Air quality control region
BMP	Best management practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2	Carbon dioxide
CWS	Community Water System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
GCR	General Conformity Rule
GHG	Greenhouse gas
GPD	Gallons per day
GPM	Gallons per minute
HDMS	Heritage Data Management System
HP	Horsepower
IPaC	Information for Planning and Conservation
LF	Linear feet
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NOx	Oxides of nitrogen
PCPI	Per capita personal income
PM_{10}	Particulate matter less than 10 microns in diameter
$PM_{2.5}$	Particulate matter less than 2.5 microns in diameter
ppm	Parts per million
PSI	Pounds per square inch
PSPF	Production, Storage, and Pressure Facility
SHPO	State Historic Preservation Officer
SWPP	Stormwater Pollution Prevention Plan
USDA-NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
USFWS	U.S. Fish and Wildlife Service

SECTION A.
PROPOSED PROJECT AND FUNDING STATUS

1. Project Purpose and Need

Public Health Concerns and Inadequate System or System Components

The Town of Chino Valley is in Yavapai County, Arizona (Figure 1). The existing water distribution configuration for the Town is generally classified as a branched or tree type system. The lengthy dead-end water lines associated with this type of system are commonly associated with operational problems related to system reliability and water quality. The Perkinsville Road water line has approximately 1.75 miles of 12-inch dead-end water main and serves 20 water service customers.

The configuration of the current distribution system provides only one direction of available water flow to the customers along the dead-end line. If a portion of that line must be shut down for maintenance or other reasons, the customers between that point and the end of the line are without water service.

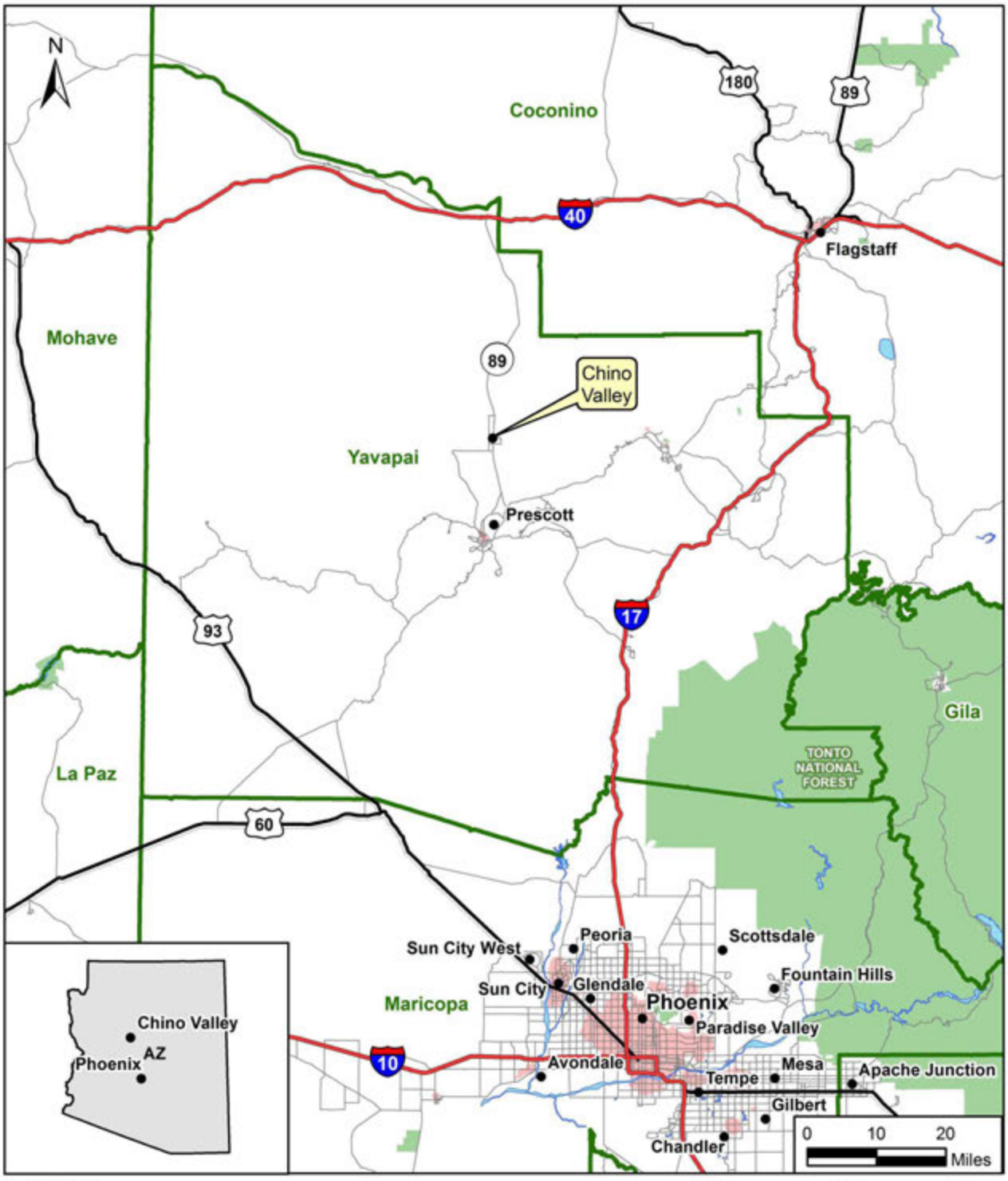
Water does not circulate in dead-end water lines, but remains stagnant until used, leading to sediment accumulation. Bacterial growth can also occur in dead-end water lines, as it is difficult to maintain adequate chlorine levels, and dead-end water lines tend to have the highest concentrations of disinfection byproducts. Without the implementation of remediation practices such as flushing, exceedances of state and federal drinking water standards would be expected to occur in these water lines. Because water quality is a public health concern, a substantial amount of labor and natural resources are committed to maintaining water quality in this line at an acceptable level.

The purpose of this project is to create a looped water distribution system, and it is needed to address the system reliability and water quality issues. This project is consistent with Goal 2 (Protecting America's Waters—protect and restore waters to ensure that drinking water is safe and sustainably managed, and that aquatic ecosystems sustain fish, plants, wildlife, and other biota, as well as economic, recreational, and subsistence activities) and Objective 2.1 (Protect Human Health—achieve and maintain standards and guidelines protective of human health in drinking water supplies, fish, shellfish, and recreational waters, and protect and sustainably manage drinking water resources) of the *Fiscal Year 2014-2018 EPA Strategic Plan* (USEPA 2014). Increasing system reliability through the implementation of this project is expected to protect America's waters and human health in accordance with EPA's goals.

2. Project Description

Project Summary

The Town of Chino Valley proposes to add new water main pipelines (see Figure 2) to create loops in the water distribution system, improving water service reliability and redundancy and reducing the resources needed to maintain acceptable water quality. A looped drinking water distribution system consists of connected pipe loops throughout the area to be served. Looped systems keep water moving, reducing many of the problems associated with water stagnation in dead-end lines. In a looped system, water can reach any service customer from two directions,



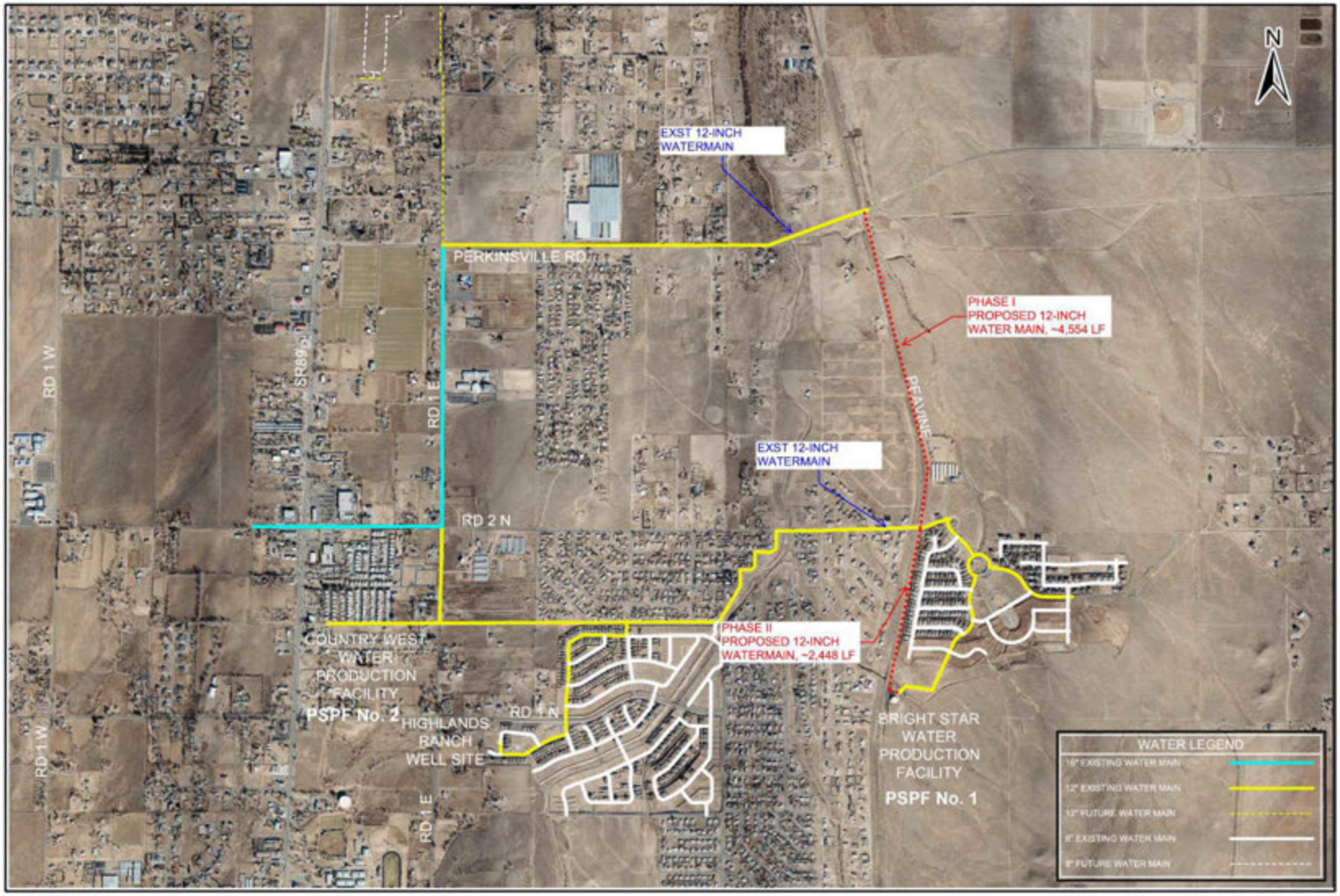
LEGEND

- County Boundary
- Interstate
- U.S. Route
- Road
- Surface Water
- Urban Area
- National Park/Forest

General Location

Chino Valley, Arizona

Figure 1



LEGEND

Proposed Water Main (Phases I and II)

Project Details

Chino Valley, Arizona

Figure 2

creating redundancy so that if one portion of the system must be taken off line, customers will still have water service. Changing a looped system to a branched system increases the reliability for customers. Figure 3 illustrates the differences between a branch distribution system (on the left) and a looped distribution system (on the right).

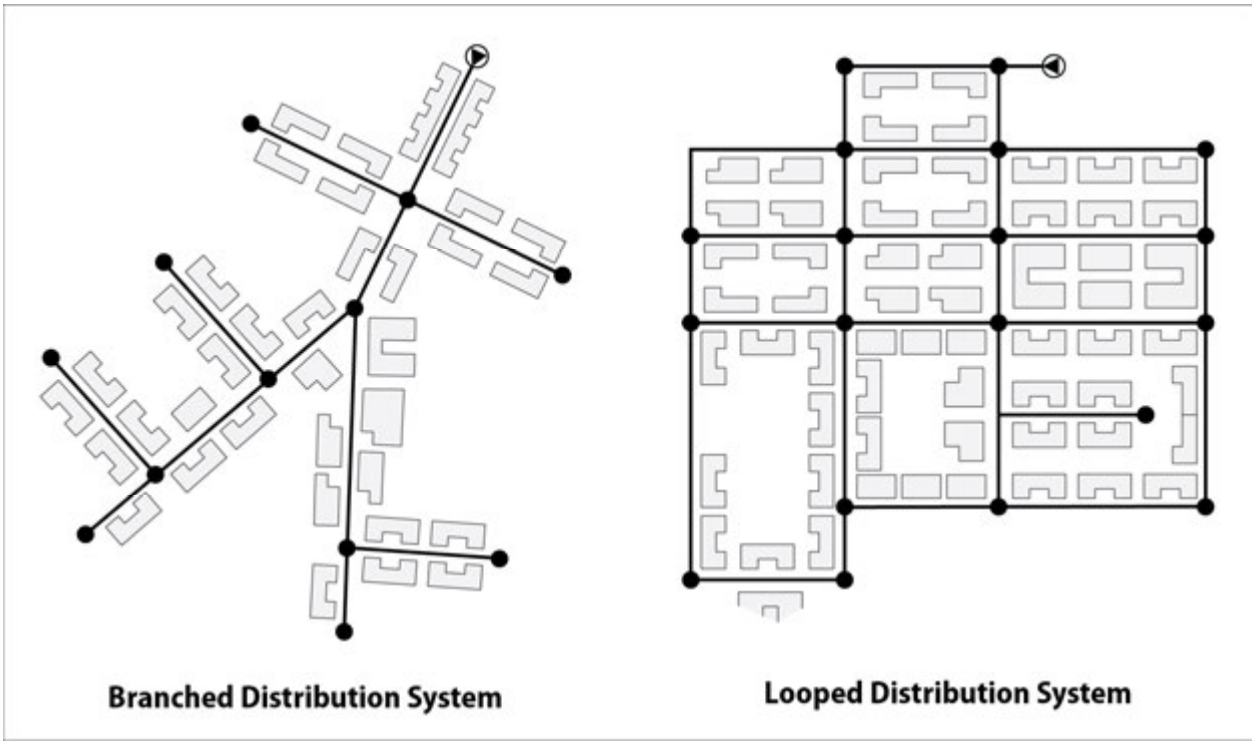


Figure 3. Graphic Representation of a Branched Distribution System (Left) and a Looped Distribution System (Right).

The project would be implemented in two phases. Phase I would create a water system loop in the northern section of the system by installing approximately 4,554 linear feet (LF) of 12-inch water main from the existing terminus at Perkinsville Road to the 12-inch water main at Road 2 North (see Figure 2). Phase II would create another loop in the system by installing approximately 2,448 LF of 12-inch water main from the connection point at Road 2 North (see Figure 2) to Production, Storage, and Pressure Facility (PSPF) No. 1 (Figure 4: Bright Star Water Production Facility).

Planning Area Description

The planning area for consideration of environmental consequences is the north-south oriented area between Perkinsville Road and the existing water production facility, approximately following the Peavine Trail alignment. Areas within a reasonable distance (approximately ½ mile) of this area are also considered. The current and planned water distribution facilities are shown on Figure 2.

Planning Period

Project design has not commenced. It is anticipated that implementation of Phase I would occur in late 2016, pending receipt of funding, followed by implementation of Phase II.

LEGEND

Proposed Water Main

Existing Water Main

Production, Storage, and Pressure Facility No. 1 (Bright Star Water Production Facility)

Chino Valley, Arizona

Figure 4

Description of Project Construction Phases

Phase I would commence at Road 2 North in Chino Valley, Arizona and follow the Peavine Trail alignment north to Perkinsville Road. The Peavine Trail follows an old railroad, and the proposed main would be constructed along the eastern side of the old railroad alignment. No construction would disturb the Peavine Trail or the railroad bed. Phase II would commence at the terminus of Phase I on Road 2 North and follow the east side of the Peavine Trail south to existing PSPF No. 1.

Owner and Operator of the Facilities

The Town of Chino Valley owns and operates the Community Water System (CWS 13-137).

Location of the Facilities

CWS 13-137 extends from PSPF No. 1 (see Figure 4) at the eastern end of Road 2 North to PSPF No. 2 (Country West Water Production Facility; see Figure 5) at the intersection of State Route 89 and Road 2 North, north along Road 1 East to Perkinsville Road, and east along Perkinsville Road to the Peavine Trail alignment. A water line extends west off Road 1 East along Road 2 North.

3. Relevant Design Parameters

Water mains of CWS 13-137 are 12-inch lines at and between the two water production facilities, in residential areas served, and along a portion of Road 1 East. A 16-inch water main extends along Road 2 North west of Road 1 East and from Road 2 North north to Perkinsville Road. Phase I proposes 4,554 LF of 12-inch water main, and Phase II proposes 2,448 LF of 12-inch water main.

4. Project Cost

Proposed Total Project Cost

Phase I of the proposed water system improvements is estimated to cost $576,550.

Phase II of the proposed project is estimated to cost $216,400.

The total cost of the project is estimated to be $792,950. This total cost includes a 10 percent engineering fee of $63,436 (with $46,124 for Phase I and $17,312 for Phase II) and a 15 percent contingency sum of $95,154 (with $69,186 for Phase I and $25,968 for Phase II).

Portion of Total Project Cost Funded by the U.S. Environmental Protection Agency (EPA)

The Town of Chino Valley received a congressional appropriation in Fiscal Year 2010 for $485,000 to cover water and wastewater improvements. The Town received a waiver from EPA to the 45 percent local matching requirement because that requirement would have placed a high financial burden on the Town's rate payers.

LEGEND

Existing Water Main

Production, Storage, and Pressure Facility No. 2 (Country West Water Production Facility)

Chino Valley, Arizona

Figure 5

SECTION B.
EXISTING DRINKING WATER SYSTEM

1. Description of Distribution System

The existing 12-inch waterline extending along Perkinsville Road has approximately 20 water service customers and is a dead-end main approximately 1.75 miles long branching from a 16-inch main that runs along Road 1 East. The system is approximately 10 years old and is constructed of 6-inch to 16-inch, class 250, ductile iron, and C-900 polyvinyl chloride pipe.

Water from PSPF No. 1 is distributed first along a 12-inch water line to a residential community directly north of PSPF No. 1, then out to the rest of the water distribution system through the 12-inch line along Road 2 North.

2. Water Demand: Average, Peak

The system's average daily demand is 188,000 gallons per day (GPD), and the peak daily demand is 300,000 GPD.

3. Surface Water Source

Surface water is not used as a source of potable water in the Town of Chino Valley.

4. Ground Water Source

The Basin and Range aquifers are the source of ground water for the Town of Chino Valley as shown on Figure 6. PSPF No. 1, shown on Figures 2 and 4, has one production well capable of producing 1,100 gallons per minute (GPM) (or 1,584,000 GPD). PSPF No. 2, shown on Figures 2 and 5, has one production well capable of producing 44 GPM (63,360 GPD).

5. Water Storage

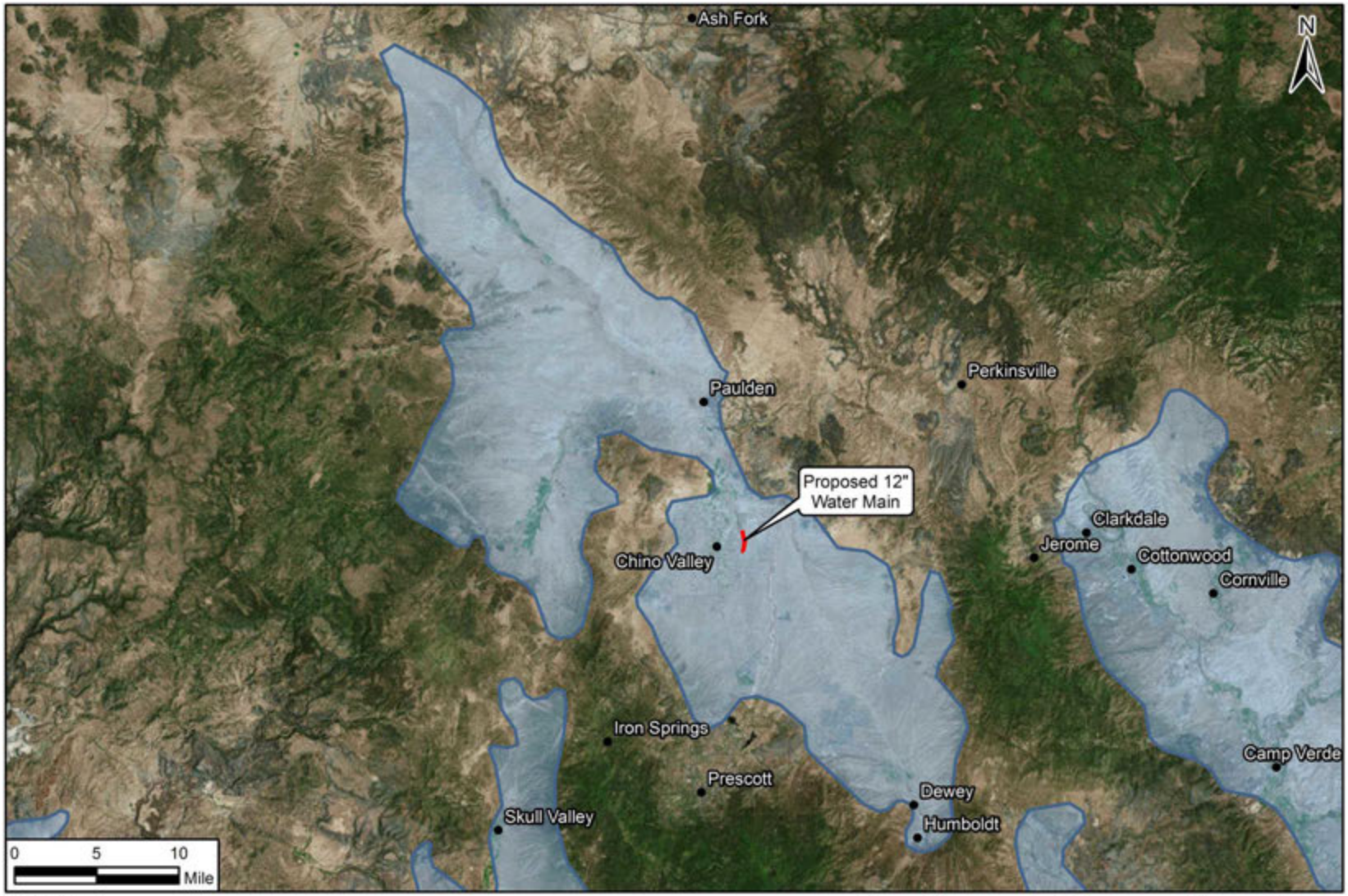
The water produced from PSPF No. 1 is stored in a 1-million-gallon, steel, aboveground storage facility. The water produced from PSPF No. 2 is stored in a 165,000-gallon storage facility.

6. Raw Water Characteristics

The Town of Chino Valley's water production, storage, pressure and distribution infrastructure is well maintained and is in good to excellent condition. Through a comprehensive maintenance program including facility inspection, water distribution system flushing, and maintenance and water quality monitoring programs, the system consistently meets EPA and Arizona Department of Environmental Quality (ADEQ) water quality and facility condition compliance standards. The Town of Chino Valley Municipal Water System complies with all state and federal laws regarding water quality (ADEQ 2016a).

7. Service Area

CWS 13-137 serves a population of 1,950 residents through 614 service connections in the Town of Chino Valley.



LEGEND

Project Area

Basin and Range Aquifer

Basin and Range Aquifers

Chino Valley, Arizona

Figure 6

Source: USGS 2000.

SECTION C.
NEED FOR PROPOSED PROJECT

1. Description of Need

Additional water lines are needed to create a looped water distribution system from Perkinsville Road to Road 2 North and from Road 2 North to PSPF No.1. Installing these new lines would eliminate the dead-end line along Perkinsville Road and create a loop in the southern end of the water distribution system. Water quality in the Perkinsville Road line would be improved by eliminating water stagnation and reducing water service downtime to customers served by the Perkinsville Road line and in the southern end of the water distribution system. From the customer's perspective, system reliability would be improved. Maintenance needs, such as line flushing, would also be reduced in the Perkinsville Road line.

If the proposed project is not implemented, the dead-end water line in CWS 13-137 is projected to continue requiring frequent flushing and maintenance to maintain water quality at the same high level that is provided in the rest of the system. The health of the water service customers along the water line would remain a concern due to the water quality issues typically associated with dead-end water lines. Water service to those customers in the residential community immediately north of PSPF No. 1 would continue to be interrupted intermittently during water line servicing.

SECTION D.
ANALYSIS OF ALTERNATIVES

1. No Action

Under the no-action alternative, the water system infrastructure project would not be funded or implemented. The issues associated with system reliability and water quality would continue to affect the dead-end portions of the water distribution system.

2. New Construction Alternatives

Only one construction alternative, as detailed in Section A, has been proposed by the Town of Chino Valley. No other construction alternative will meet the scope of the project.

3. Preferred Alternative

The preferred alternative is the proposed project described in Section A.

SECTION E.
EXISTING ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

1. Existing Environment

Public Health Problems Due to Water Quality

The Town of Chino Valley Municipal Water System complies with all state and federal laws regarding water quality (ADEQ 2016a). However, public health is a concern because of water quality degradation in the dead-end water line at Perkinsville Road.

Water does not circulate in dead-end water lines, but remains stagnant until used, leading to sediment accumulation. Bacterial growth can occur in dead-end water lines, as it is difficult to maintain adequate chlorine levels, and dead-end water lines tend to have the highest concentrations of disinfection byproducts. Poor water quality is a public health concern.

Water Quality Problems

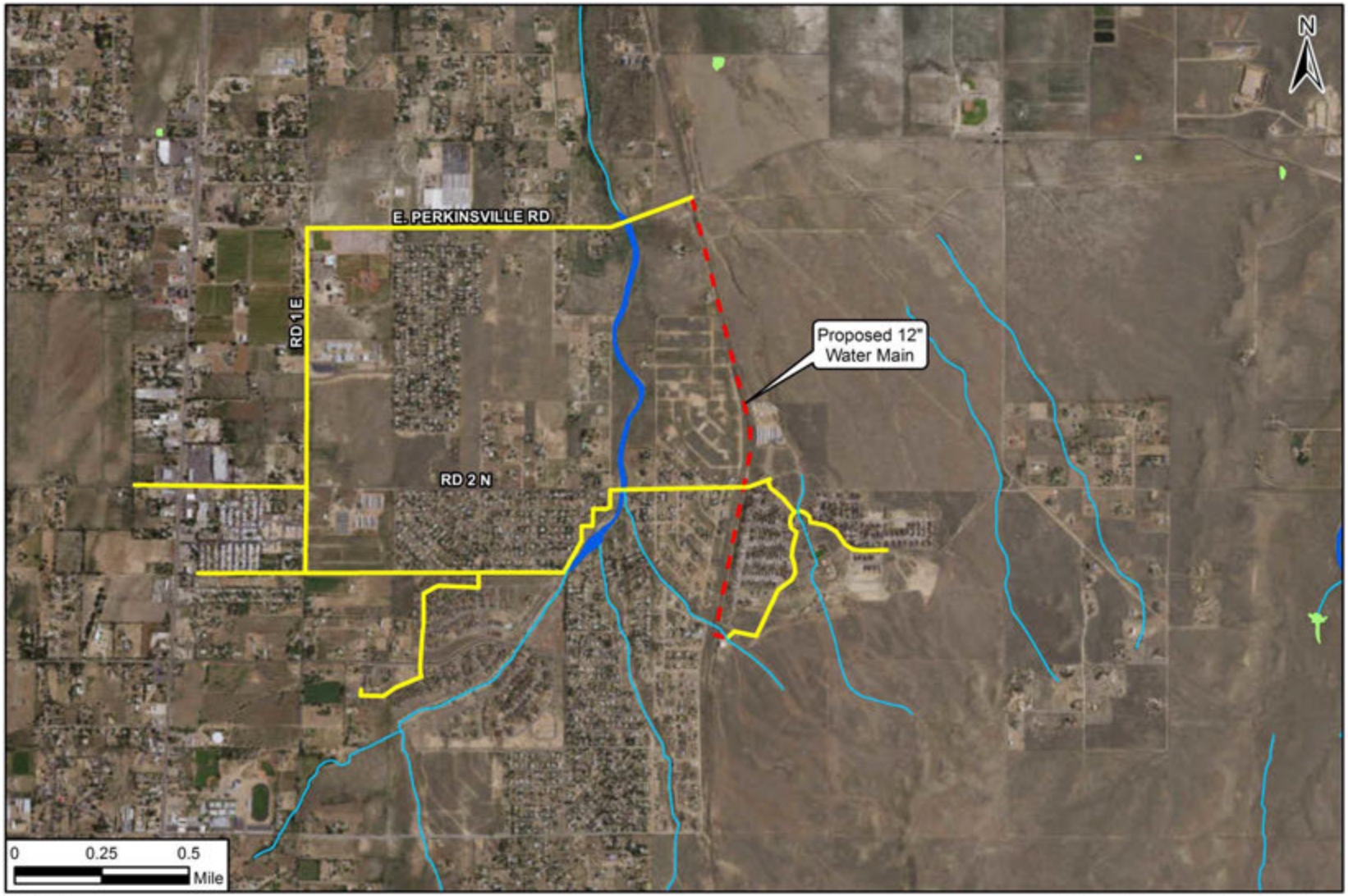
Sediment accumulation, bacterial growth, inadequate chlorine concentration, and high concentration of disinfection byproducts are water quality problems associated with dead-end water lines. Without remediation practices (e.g., flushing of dead-end water lines), impacts of increased bacterial growth and inadequate chlorine concentrations in these lines would include exceedances of state and federal drinking water quality standards for microorganisms. Impacts of high concentrations of disinfection by-products in dead-end water lines without remediation would include exceedances of state and federal drinking water standards for disinfection byproducts (e.g., total trihalomethanes and haloacetic acids) (Galvin 2011).

Surface & Ground Water Hydrology

No perennial surface waters are in the project area (see Figure 7).

Chino Valley is near the boundary of the Colorado Plateaus physiographic province to the north and the Basin and Range physiographic province to the south (Robson and Banta 1995). The Basin and Range aquifers of southern Arizona and western Utah are in the unconsolidated sediments in the region and underlie the Chino Valley.

The Basin and Range aquifers are the principal source of ground water in western Utah and southern Arizona (Robson and Banta 1995). The aquifers are dispersed but present in about 120 alluvium-filled basins interspersed between ranges of mountains in the region. About 150 million acre-feet of recoverable ground water is in storage in the upper 100 feet of the saturated sediments of the basins.



LEGEND

- Proposed Water Main
- Existing Water Main
- Ephemeral Stream
- Wash
- Intermittent Pond

Surface Waters

Chino Valley, Arizona

Figure 7

Source: USGS 2016b.

Drinking Water Sources and Supply

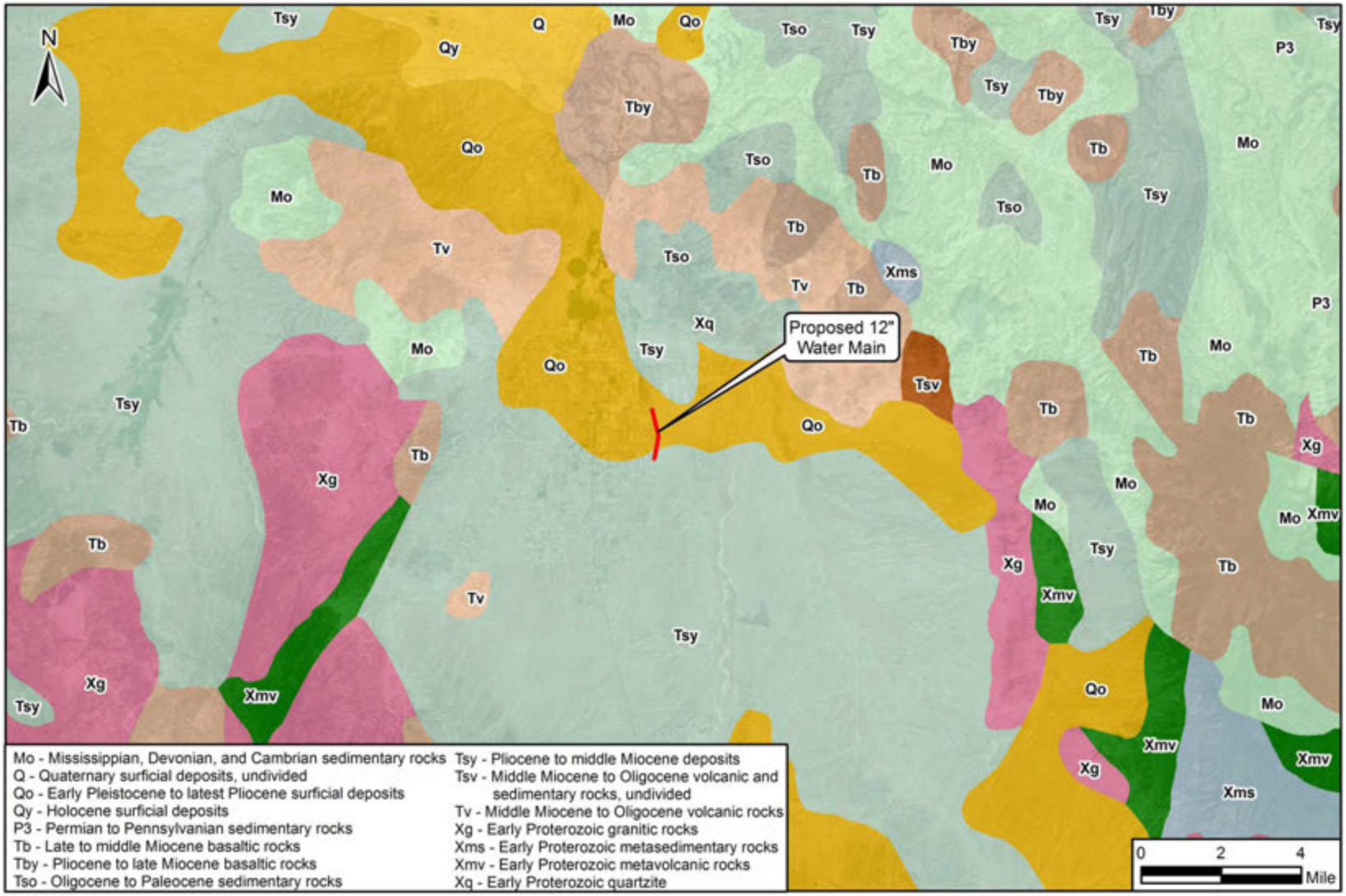
CWS 13-137 provides service through two PSPFs. PSPF No. 1 is the primary production facility for the system and consists of one production well capable of producing 1,100 GPM or 1,584,000 GPD. The water from this well is pumped into a 1-million-gallon, steel, aboveground storage facility. The storage facility feeds to a Flowtronex™ booster station capable of producing 2,500 GPM and maintaining pressure of 65 pounds per square inch (PSI) throughout the system. Well No. 1, associated with PSPF No. 1, is the primary production well and is equipped with a 125-horsepower (HP) submersible pump able to produce 1,100 GPM.

PSPF No. 2 is the secondary production facility for the system and consists of one production well capable of producing 44 GPM or 63,360 GPD. The water from this well is pumped to a 165,000-gallon storage facility that feeds the 30-HP triplex booster system that provides pressure to the distribution system at 65 PSI. Well No. 2, associated with PSPF No. 2, is the secondary well and is equipped with a 5-HP submersible pump able to produce 44 GPM. All water is pumped from groundwater sources in the Basin and Range aquifers.

Physiography, Topography, Geology & Soils

Chino Valley is in the Basin and Range physiographic province at an elevation of about 4,700 feet above mean sea level. The valley floor surface features are composed of a mixture of sedimentary and volcanic materials—gravel, sand, clay, and volcanic rocks. These materials filled structural depressions (basins) created by large scale movement along faults, such as the Big Chino fault adjacent to Big Black Mesa. Other faults are the primary influence on present-day topography in the region (Woodhouse et al. 2002). The basin fill materials interlayer with each other in complex patterns (see Figure 8) but are generally late Cenozoic alluvium underlain by Paleozoic sedimentary rock (Wirt et al. 2004).

Native soils in Chino Valley include three types of mixed alluvium soils characterized by 0 to 8 percent slopes with depth to water table and depth to restrictive features of more than 80 inches (U.S. Department of Agriculture Natural Resources Conservation Service [USDA-NRCS] 2016). The Abra gravelly sandy loam has loam sub-horizons and is well-drained (Hydrologic Soil Group B). The Lonti gravelly loam, typical of fan terraces, has gravelly clay and very gravelly sandy clay loam sub-horizons and is less well-drained (Hydrologic Soil Group C). The project area soils are shown on Figure 9. The Lynx soils, typically of 1 to 5 percent slopes found in drainageways and alluvial fans, consist of loam with a clay loam sub-horizons, and are also classified as Hydrologic Soil Group C. The project area was previously disturbed for railroad installation, and more recently conversion of that railroad bed to a recreational path. Because portions of the project area are developed and previously disturbed, characteristic soil horizons, are not expected in much of the project area.



LEGEND

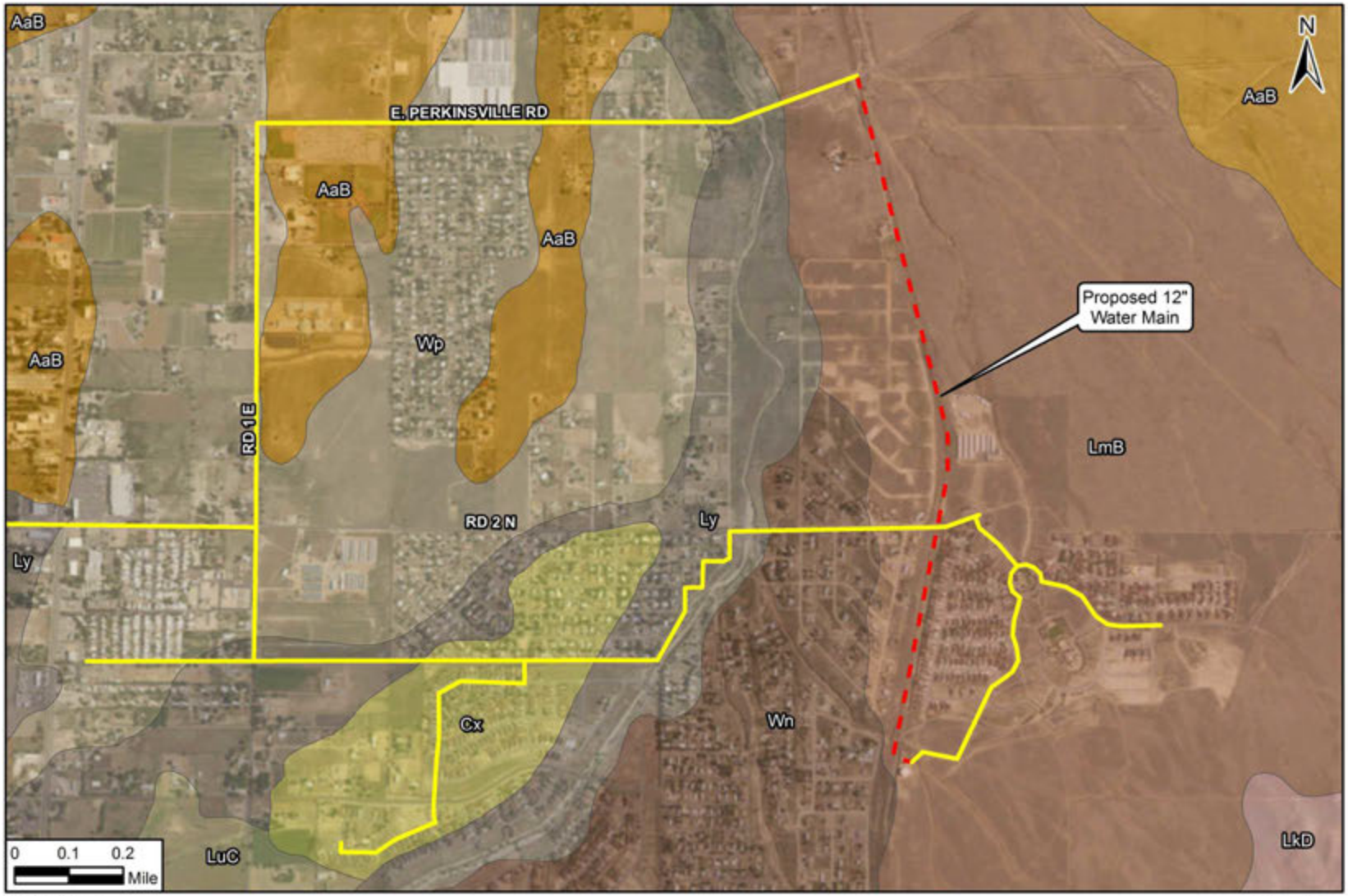
Project Area

Area Geology

Chino Valley, Arizona

Figure 8

Source: USGS 2005.



LEGEND

- Proposed Water Main
- Existing Water Main

AaB	Abra gravelly sandy loam, 0 to 8 percent slopes	Ly	Lynx soils
Cx	Cordes sandy loam	Wn	Wineg-Abra complex
LkD	Lonti gravelly sandy loam, 15 to 30 percent slopes	Wp	Wineg and Poley soils
LmB	Lonti gravelly loam, 0 to 8 percent slopes		
LuC	Lonti-Wineg complex, 3 to 15 percent slopes		

Soils

Chino Valley, Arizona

Figure 9

Source: USDA-NRCS 2016.

Federally Endangered & Threatened Species

The U.S. Fish and Wildlife Service (USFWS) reports one bird, one mammal, one reptile, and four fish as federally listed species potentially occurring in the project area (USFWS 2016a, 2016e) (see Appendix A). The fish species are not of concern because of the lack of surface waters in the project area. Information on the other species is provided. None of the species' habitat requirements are met in the proposed project area.

- Yellow-billed cuckoo (*Coccyzus americanus*; Threatened) (USFWS 2016b):
  - The species uses wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. They breed throughout much of the eastern and central United States and winter almost entirely in South America.
- Black-footed ferret (*Mustela nigripes*; Experimental population, non-essential[A]) (USFWS 2016c):

  Black-footed ferrets are found surviving only on prairie dog colonies (Prairie Wildlife 2016). Prairie dogs make up more than 90 percent of their diet. The remaining portion is composed of mice, voles, rabbits, and small birds. The population of black-footed ferrets in Yavapai County is experimental, with individuals introduced to prairie dog colonies in an attempt to replenish wild populations.
- Northern Mexican gartersnake (*Thamnophis eques megalops*; Threatened) (USFWS 2016d):
  - Northern Mexican gartersnakes live in riparian areas, hiding in cattails, willows, aquatic plants and bulrush (CABQ 2016). They eat tadpoles, minnows and other small fish.

The Heritage Data Management System (HDMS), maintained by the Arizona Game and Fish Department and part of Arizona's Natural Heritage Program, provides an online tool for reviewing current information on Arizona's plant and wildlife species location and status to aid in the environmental decision making process (AZGFD 2016). The HDMS was used to review the Town of Chino Valley's proposed water line extension project that would be partially funded under the EPA's Special Appropriation Act Projects grant program. Species listed in the HDMS as potentially occurring in the general project area are listed in Table 1 with an assessment of the potential for each species to occur in the project area.

A report for the project area was generated through the USFWS's Information for Planning and Conservation (IPaC) online system (see Appendix A). The system provides background information on listed species in an area of interest. A USFWS list of threatened and endangered species was generated for the project area (Appendix A). It was determined through review of the species listed for the Chino Valley area that the project area does not offer suitable or critical habitat for any of the protected species that could occur in the area, or the species are not listed as occurring in the project area proper, so the project would have no effect on listed species, and formal consultation with the USFWS under Section 7 of the Endangered Species Act is not required.

[A] This designation indicates a species population that has been reintroduced to an area outside its current range, but within its historical range, for the purpose of conservation and recovery of the species, but where that reintroduced population is not essential to the continued existence of the species.

Table 1
Arizona Species in the Area of Concern

Common Name	Scientific Name	Notes
Arizona Bell's vireo	*Vireo bellii arizonae*	Inhabits lowland riparian areas, with willows, mesquite and seepwillows. No suitable habitat in the project area.
Bald eagle	*Haliaeetus leucocephalus*	Bald eagles inhabit areas with high water-to-land edge. No suitable habitat in the project area.
Common nighthawk	*Chordeiles minor*	Not a species of special concern. No protective measures are in place for the species. Nests on the ground. **Could be present during breeding season in the project area.**
Ferruginous hawk	*Buteo regalis*	Inhabits open scrublands and woodlands, grasslands, and semi-desert grassland. Nests on cliffs, trees, utility structures, farm buildings, haystacks, and at ground level. **Could be present during breeding season in the project area.**
Gila woodpecker	*Melanerpes uropygialis*	Nest in cavities, often in saguaro cactus. No suitable nest sites are in the project area.
Lincoln's sparrow	*Melospiza lincolnii*	Breeds in bogs, wet meadows, and riparian thickets, mostly in northern and montane areas. Winters in brushy areas, thickets, hedgerows, understory of open woodlands, forest edges, clearings, and scrubby areas. No suitable habitat in the project area.
Mississippi kite	*Ictinia mississippiensis*	There has been one general sighting for Yavapai County near Camp Verde. Unlikely to be in the project area.
Pacific wren	*Troglodytes pacificus*	Associated with old-growth forests. No suitable habitat in the project area.
Savannah sparrow	*Passerculus sandwichensis rufofuscus*	Inhabits a variety of open habitats, marshes, and grasslands. Breeds in habitats with short to intermediate vegetation height, intermediate vegetation density, and a well-developed litter layer. **Could be present during breeding season in the project area.**
Western (Arizona) grasshopper sparrow	*Ammodramus savannarum ammolegus*	Prefers large expanses of intermediate height grass for nesting. Nests built on the ground. **Could be present during breeding season in the project area.**
Western burrowing owl	*Athene cunicularia hypugaea*	Occurs locally in open areas. Often associated with burrowing mammals. Sometimes in open areas such as vacant lots near human habitation and golf courses. **Presence or absence should be determined prior to ground disturbance.**

Archeological and Architectural Cultural Resources

Per Section 106 of the National Historic Preservation Act (NHPA), the area of potential effect (APE) for this project is defined as the surfaces and depths that would be disturbed by excavation and water line installation activities. This includes 4,554 LF from Perkinsville Road to Road 2 North, and 2,448 LF from Road 2 North to PSPF No. 1. The width of disturbance would be minimized to the extent feasible and would not be expected to exceed 50 feet from either side of the center line. The total estimated area of disturbance would be approximately 10 acres (approximately 5 acres of disturbance for water line installation and no more than 5 acres for equipment staging). No project-related activities would occur outside of the APE.

A records search of the APE and surrounding areas was done through the Arizona Cultural Resource Inventory (known as AZSITE) of the Institute for Social Science Research at Arizona State University. The study area of the records search included a 1-mile buffer around the APE for archaeological resources and a 100-foot buffer for above-ground/built environment resources.

The records search found that one survey was done in the APE (Agency Reference # 5286.ASM/AZSITE Rf.1536, Indermill 1995) and two National Register of Historic Places (NRHP)-eligible historic-era resources were recorded as adjacent to the APE (AZSITE 9158 and 9159). Two surveys have been done within 1 mile of the APE (Agency Reference 71387.ASM and 4184.ASM), and two historic-era built environment resources that are listed as not evaluated for the NRHP are recorded within 1 mile of the APE (AZSITE 9151 and 104827). Table 2 lists the previous cultural resource surveys in the project study area and Table 3 lists the previously recorded archaeological sites in the project study area.

Table 2
Previous Cultural Resource Surveys in the Project Study Area

Report #	Report Title/Description	Author/Company	Date	Proximity to APE
5286.ASM	The Peavine Trail Corridor: An Archaeological Survey and Cultural Resource Inventory of 5.7 Miles of the Santa Fe, Prescott and Phoenix Railway Line and Jerome Junction, Arizona.	Indermill, R.H./RHI.	1995	In the APE
4184.ASM	Cultural Resource Survey for the Yavapai Substation and Transmission Line Facilities Project	Bruder, S., Kristopher, S., Darrington P., Rogge, A.E,/ Dames & Moore Intermountain Cultural Resources Services.	1994	Within 1 mile
71387.ASM	A Cultural Resources Inventory (Class I and III surveys) of 168 acres, 65.2 hectare parcel in the Chino Hills Subdivision in the Town of Chino Valley in Yavapai County, Arizona	Heuett, M.L./Cultural & Environmental Systems, Tucson, Arizona.	2004	Within 1 mile

Note: APE=area of potential effect

Table 3
Previously Recorded Archaeological Sites in the Project Study Area

Site Number	Site Type	Resource Description	Recorder (Company)/ Date Recorded	NRHP Eligibility (Criterion)	Proximity to APE
AZ N:N:3:32 (ASM); AZSITE 9159	H	Santa Fe, Prescott and Phoenix Rail Line: middle and late historic (1891-present)-grade segments salvaged in 1992-1993.	Indermill, R. Glidden, C., Morgan, C., Hamblin, A.: 1994	E (A)	Not in the APE
AZ N:3:33 (ASM); AZSITE 9158	H	Santa Fe, Prescott and Phoenix Rail Line-Jerome Junction Townsite	Indermill, R. Glidden, C., Morgan, C., Hamblin, A.: 1994	E	Not in the APE
AZ N:N:3:31 (ASM), AZSITE 9151	H	United Verde & Pacific Railroad: railroad grade segments.	Shepard, K., Darrington, G., Savage, R.: 1994	NE	Not in the APE
AZ N:3:71 (ASM): AZSITE 104827	H	Historic Refuse: middle-late historic discard scatter and four features consisting of building materials and refuse.	Heuett, M.: 2004	NE	Not in the APE

Note: P=Prehistoric, H=Historic, NE=Not Evaluated, E=Eligible, APE=area of potential effect

The entire APE was surveyed in 1995 as part of *The Peavine Trail Corridor: An Archaeological Survey and Cultural Resource Inventory of 5.7 Miles of the Santa Fe, Prescott and Phoenix Railway Line and Jerome Junction, Arizona*. No structures were identified within 100 feet of the APE.

EPA determined that the appropriate finding under Section 106 was "no historic properties affected" because there are no identified cultural resources in the APE and the project would not affect those identified resources adjacent to the APE. EPA conveyed this finding of effect to the Arizona State Historic Preservation Office (SHPO) in a May 26, 2016 letter, and the SHPO concurred with this finding on June 16, 2016 (see Appendix B).

Air Quality

Criteria Air Pollutants. EPA Region 9 and the Arizona Department of Environmental Quality, Air Quality Division regulate air quality in Arizona. EPA established primary and secondary National Ambient Air Quality Standards (NAAQS) (Title 40 of the *Code of Federal Regulations* [CFR] part 50) that specify acceptable concentration levels of six criteria air pollutants: particulate matter (measured as both particulate matter less than 10 microns in diameter [PM_{10}] and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]), sulfur dioxide, carbon monoxide (CO), oxides of nitrogen (NOx), ozone, and lead. Short-term NAAQS (i.e., 1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, and long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt standards more stringent than those established under the federal program; the state of Arizona/Yavapai County has adopted the federal standards.

Federal regulations designate air quality control regions (AQCR) in violation of the NAAQS as *nonattainment areas*. Federal regulations designate AQCRs with levels below the NAAQS as *attainment areas. Maintenance areas* are AQCRs that have previously been designated as

nonattainment and were redesignated to attainment for a probationary period through implementation of maintenance plans. Yavapai County (and, therefore, all areas associated with the proposed project) is in the Northern Arizona Intrastate Air Quality Control Region AQCR (AQCR 270) (40 CFR 81.270). EPA designated Yavapai County as an attainment area for all NAAQS (USEPA 2016a). Only ozone is monitored for the 8-hour standard in the Chino Valley area. The latest data is for 2013, 2014, and 2015, and it indicates that ozone levels were 0.065 parts per million (ppm), 0.077 ppm, and 0.067 ppm, respectively, in those years. Only the 2014 monitored concentration exceeded the air quality standard of 0.075 ppm. The proposed project would be in a region EPA designated as an attainment area for all criteria pollutants, and the General Conformity Rule (GCR) that applies to all federal actions taken in designated nonattainment or maintenance areas to ensure federal actions compliance with the NAAQS, does not apply. For informational purposes only, emissions were estimated for a model 1-year construction project. Those emissions, greater than those expected for the proposed project, would not exceed the de minimis thresholds established for air basins subject to the GCR (see Table 4 and Appendix C).

Table 4
Summary of Construction Emissions Estimates

	Air Pollutants						
	CO	**NOx**	**VOC**	**SOx**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
De minimis (tons per year) (attainment area/non-attainment or maintenance area)	100/50	100/50	100/50	100/50	100/50	100/50	27,563
Exceeds de minimis threshold?	No	No	No	No	No	No	No

CO=carbon monoxide, NOx=nitrogen oxides, VOC=volatile organic compounds, SOx=sulfur oxides, PM_{10}=Particulate matter less than 10 microns in diameter, $PM_{2.5}$=particulate matter less than 2.5 microns in diameter, CO_2=carbon dioxide
The CO_2 value includes other greenhouse gases converted to CO_2 equivalents

Greenhouse Gases and Climate Change. Greenhouse gases (GHG) are components of the atmosphere that trap heat relatively near the surface of the earth and therefore contribute to the greenhouse effect and climate change. Most GHGs occur naturally in the atmosphere, but increases in their concentration result from human activities, such as the burning of fossil fuels. Global temperatures are expected to continue to rise as human activities continue to add carbon dioxide (CO_2), methane, nitrous oxide, and other greenhouse (or heat-trapping) gases to the atmosphere. Whether rainfall will increase or decrease remains difficult to project for specific regions (USEPA 2016b). The Council on Environmental Quality (CEQ) recently released draft guidance on when and how federal agencies should consider GHG emissions and climate change in National Environmental Policy Act (NEPA) analyses. The draft guidance includes a presumptive effects threshold of 27,563 tons per year (25,000 metric tons per year) of CO_2 equivalent emissions from a federal action (CEQ 2010). Emissions were estimated for a model 1-year construction project. Those emissions, greater than those expected for this smaller project, would not exceed the CEQ threshold (see Table 4 and Appendix C).

Environmental Justice Information

Conditions, Minority & Low Income Areas (include median family income)

Income. Yavapai County income levels are lower than state and national levels. The county's per capita personal income (PCPI) of $25,068 is 98 percent of the Arizona PCPI of $25,537 and 88

percent of the United States PCPI of $28,555. The county's median family income of $53,626 is 91 percent of the state median family income of $59,088 and 82 percent of the national median family income of $65,443. The Town of Chino Valley's income levels are lower than county, state and national levels, with a PCPI of $21,538 and a median family income of $47,527 (U.S. Census Bureau 2015a).

*Environmental Justice***.** Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, was issued by President Clinton on February 11, 1994. The EO requires that federal agencies take into consideration disproportionately high and adverse environmental effects of governmental decisions, policies, projects, and programs on minority and low-income populations.

Per CEQ environmental justice guidance, minority populations should be identified where either the minority population of the affected area exceeds 50 percent or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). The U.S. Census Bureau identifies minority populations as Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and other Pacific Islander, persons of two or more races, and persons of Hispanic or Latino origin.

Per CEQ guidance, poverty thresholds established by the U.S. Census Bureau are used to identify low-income populations (CEQ 1997). Poverty status is reported as the number of persons or families with income below a defined threshold level. As of 2014, the U.S. Census Bureau defined the poverty threshold level as a $12,071 annual income or less for an individual and a $24,008 annual income or less for a family of four (U.S. Census Bureau 2015b).

The EJSCREEN was used for this environmental justice analysis to identify minority and low-income populations. EJSCREEN is an environmental justice mapping and screening tool developed by EPA (and available on the internet) to provide a nationally consistent dataset and approach that combines environmental and demographic indicators in maps and reports (EPA 2015). Using the tool, a 1-mile radius was drawn around the proposed Chino Valley water line extension project site, generating a report on the populations within this boundary. The report (in Appendix D) shows the boundary map and lists selected demographic and environmental indicators in the defined boundary, and provides the state, regional, and national averages for each indicator for comparison.

The EJSCREEN report for demographic indicators shows that jn the defined project boundary the population is composed of 13 percent minorities; this is lower than the state average of 42 percent, the EPA regional average of 57 percent, and the United States average of 36 percent. The percent of the population in the defined project boundary identified as low income (i.e., living below the poverty threshold) is 41 percent, above the state average of 37 percent, the EPA regional average of 35 percent, and the United States average of 34 percent. The indicators for those linguistically isolated or with less than a high-school education is lower for the project area compared to the state, EPA region, and United States averages, with the exception of those with less than a high-school education, which is the same as the United States (see Appendix D).

Land Use & Development, Percent Impervious Cover, Pollutant Sources

Land along the Peavine Trail alignment is zoned as public land. All land east of the Peavine Trail alignment in the proposed project boundary is zoned as single-family residential, as is land west of the Peavine Trail alignment and south of Perkinsville Road for about two-thirds of the distance

to Road 2 North. The remainder of the land west of the Peavine Trail alignment in the proposed project boundary is zoned as multiple-family residential/light commercial land use (Figure 10).

Very little development is in the proposed Phase I project boundary or on land near the proposed project area. Scattered residences and small commercial operations border the Peavine Trail alignment between Perkinsville Road and Road 2 North. Residential development is along the proposed Phase II alignment between Road 2 North and PSPF No.1 (see Figure 2).

Identification of Floodplains and Wetlands

As shown on Figure 11, the project area is not in a Federal Emergency Management Agency-designated 100- or 500-year floodplain (ADEQ 2016b). No wetlands are in the project area (see Figure 12).

2. Direct Impacts

Direct impacts of the project on the environment would be expected for air quality, noise, soils, economic environment, transportation, and utilities (i.e., the Town of Chino Valley CWS). No impacts would be expected to result to land use, climate, topography, geology, surface and ground water resources (including floodplains and wetlands), stormwater, biological resources, cultural resources, environmental justice, protection of children, hazardous materials and toxic substances, or safety and occupational health. Table 5 summarizes the expected environmental and human health effects of the proposed action

3. Secondary Impacts of Future Growth and Development

This project is not expected to induce future growth and development because it would not increase system capacity or provide water service to currently un-served areas. Future growth in the Town of Chino Valley and Yavapai County is expected to create additional demand for potable water resources. Expansion of CWS 13-137 could become necessary to meet the water supply demand of an increased population.

4. Cumulative Impacts

Cumulative effects on environmental resources result from the incremental effects of an action when combined with other past, present, and reasonably foreseeable future projects in the area. Cumulative effects can result from individually minor but collectively substantial actions taken over time. In accordance with NEPA, a discussion is required of cumulative effects that could result from projects proposed or anticipated in the foreseeable future.

The Town of Chino Valley is planning a new pipeline construction project that would be adjacent to the proposed project. This pipeline project is partially funded by the Economic Development Administration (EDA). The EDA project would install approximately 5,000 LF feet of 12-inch diameter water main pipeline along Jerome Junction Road. Construction of the pipeline is expected to occur between December 2016 and June 2017 and may be concurrent with the proposed project's construction activities. See Figure 13 for details of the EDA funded project.

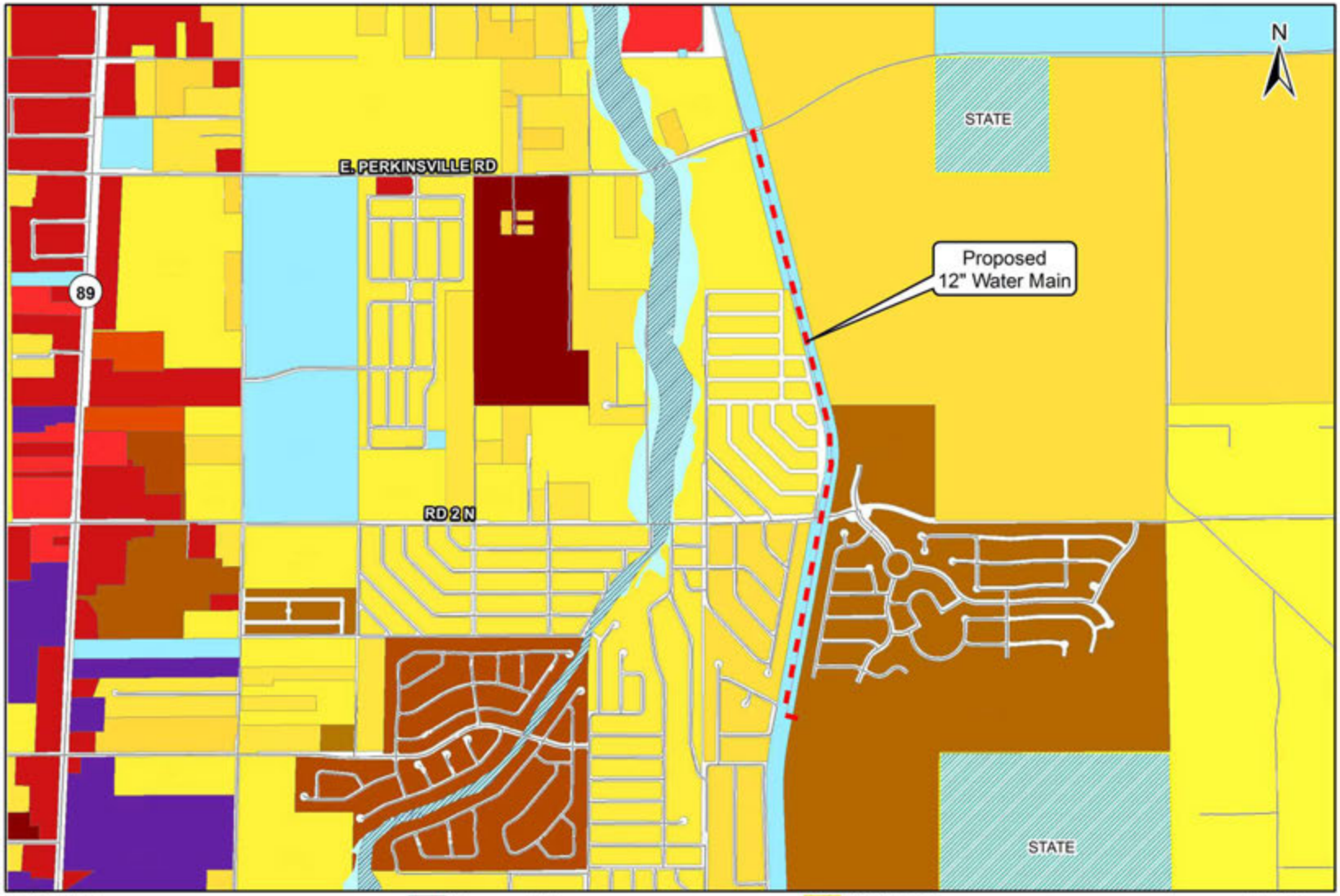
Cumulative effects are possible for those resource areas that the project could adversely affect. The proposed project could have an adverse effect on air quality, noise, and soils.

Cumulative impacts on air quality from construction activities cause temporary increases in air pollutants. Once construction is completed, emissions return to baseline levels, so construction projects may cause short-term, but not long-term cumulative impacts on air quality. Combined,

the proposed project (approximately 7,002 LF) and the EDA project (approximately 5,000 LF) would result in the construction of an estimated 12,002 LF. Conservatively assuming a doubling of the expected air pollutant emissions from the proposed project to represent the cumulative emissions, the de minimis thresholds still would not be exceeded. Also, because both projects are in a region that EPA has designated as an attainment area for all criteria pollutants, the GCR does not apply.

Construction noise is generally loud enough to be annoying within 800 feet from the construction site. If another source of loud noise is within 1,600 feet of the construction site, the two noise sources can overlap. The EDA project is in a sparsely populated area, and its construction noise combined with the construction noise of the proposed project is not expected to disturb residents and other sensitive noise receptors.

Cumulative impacts on soils are site-specific. Other ground-disturbing projects on the same site as the proposed project or relatively near it, are not known to be planned, so no cumulative impacts on soils would be expected.

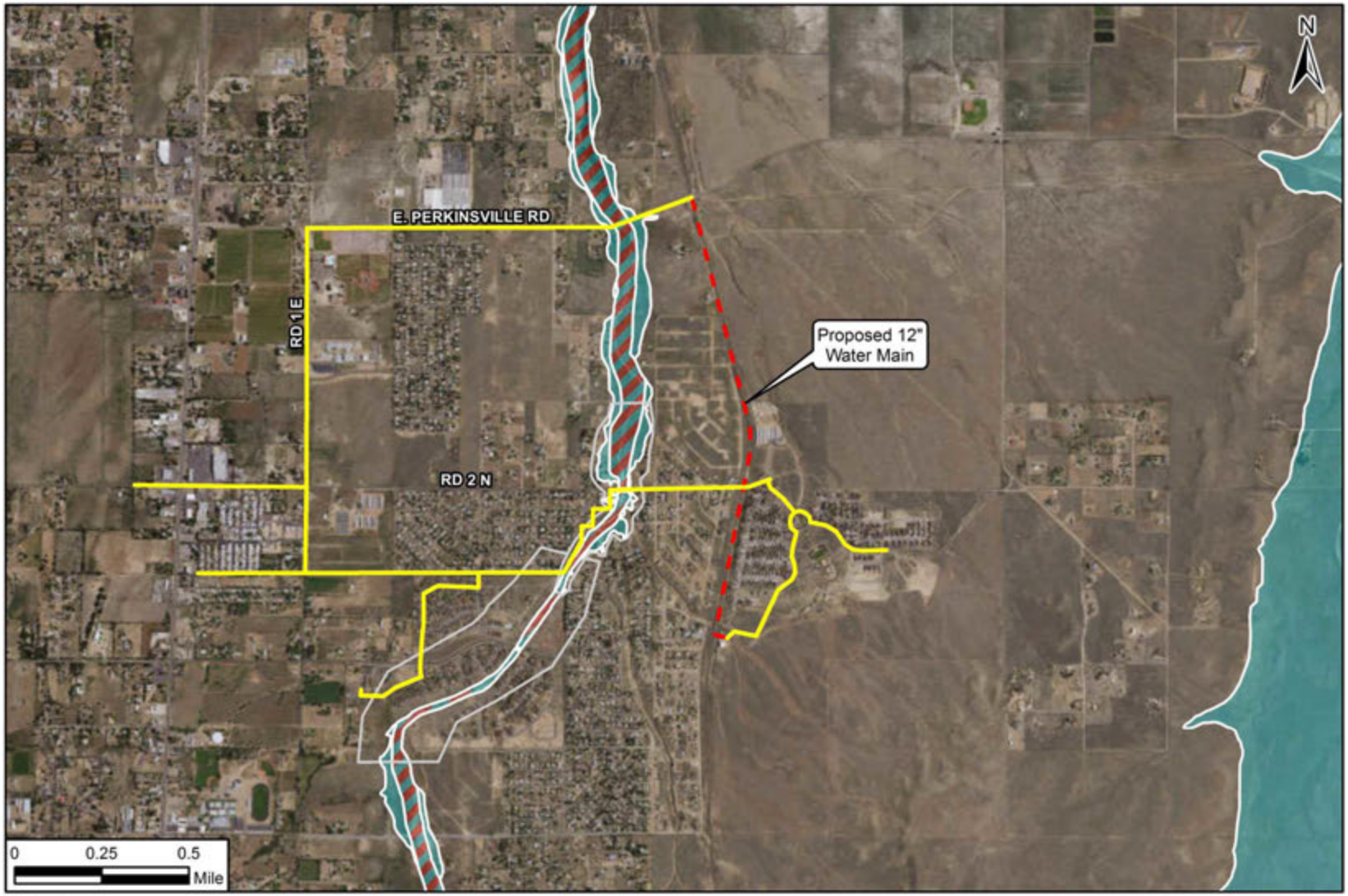


Land Use

Chino Valley, Arizona

Figure 10

Source: Yavapai County GIS 2016.



LEGEND

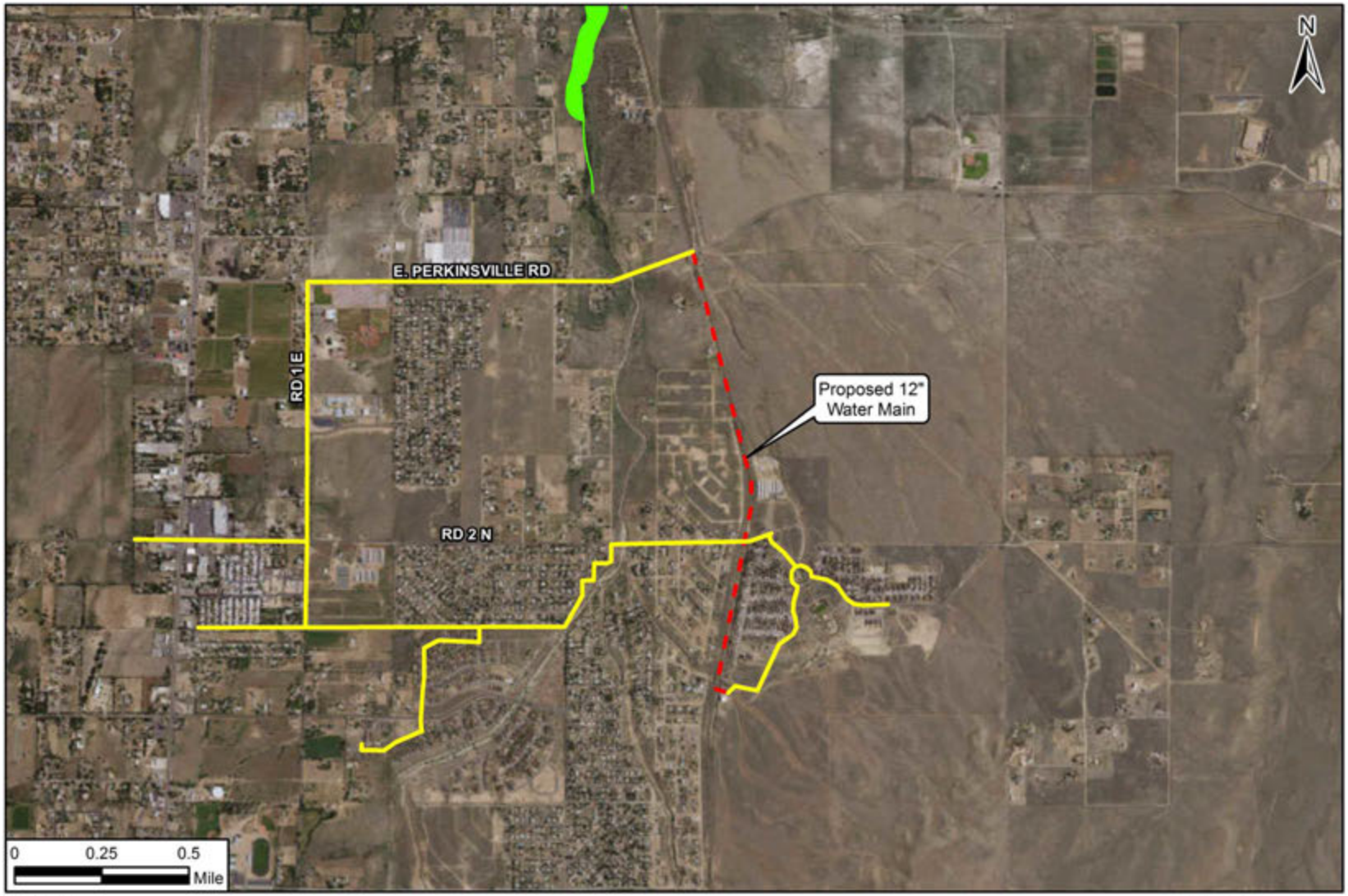
- Proposed Water Main
- Existing Water Main
- Regulatory Floodway
- 100-Year Floodplain

Floodplains

Chino Valley, Arizona

Figure 11

Source: FEMA 2016.



LEGEND

Proposed Water Main

Existing Water Main

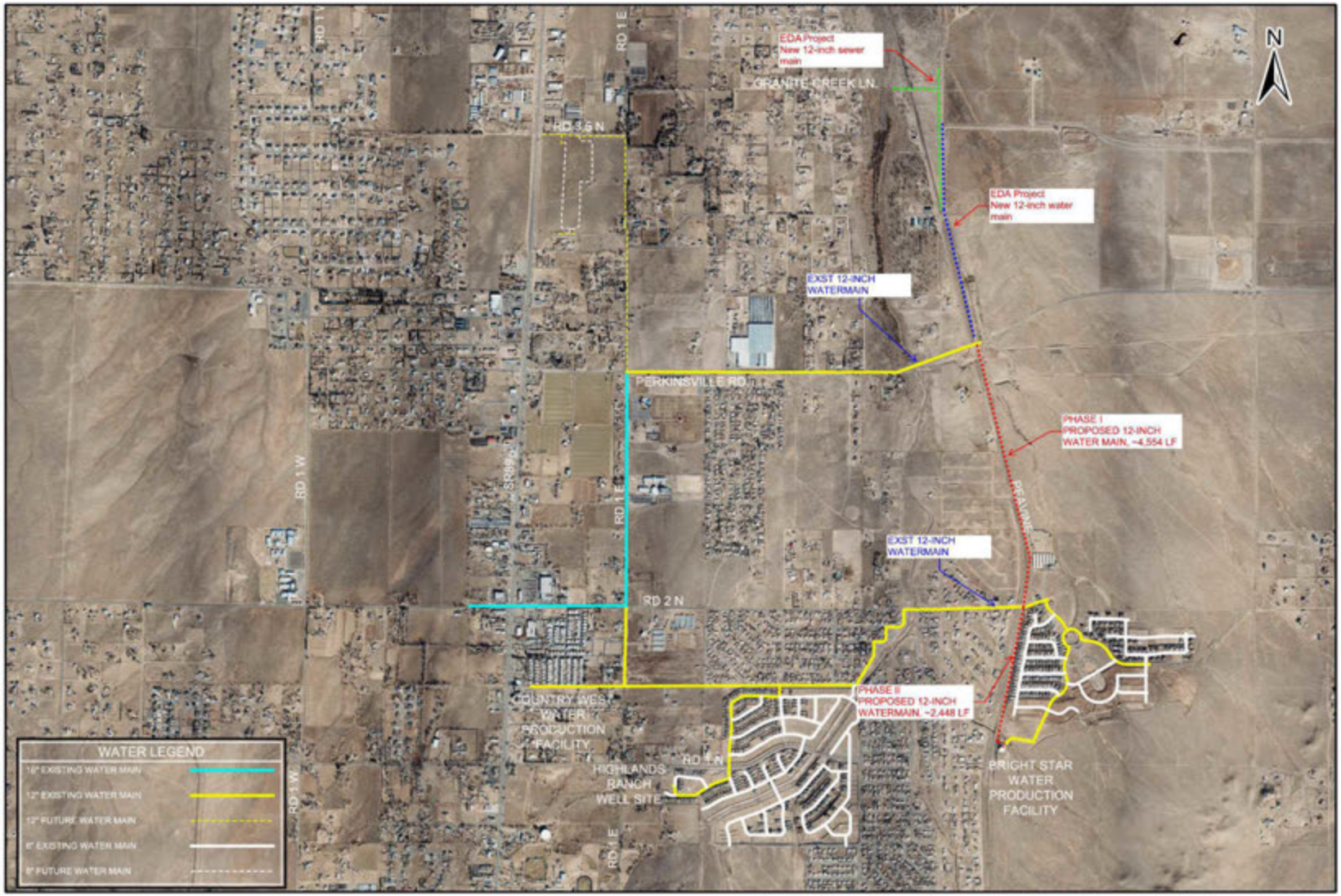
NWI Wetland

Wetlands

Chino Valley, Arizona

Figure 12

Source: USFWS 2016d.



EDA Project Master Water Map

Chino Valley, Arizona

Figure 13

Table 5
Summary of Potential Environmental Effects

Resource Area	Environmental Effects of Proposed Action	Environmental Effects of No-Action Alternative	Note
Land Use	No effect	No effect	Land use would not be affected by the proposed action.
Climate	No effect	No effect	No change in the local or regional climate would result from implementing the proposed action, and climate change would not have a discernible effect on the project.
Air Quality	Short-term minor adverse effect	No effect	Minor amounts of air pollutants would be emitted from vehicles used during installation of the water line. Dust from vehicles and ground disturbance could be minimized by using dust control best management practices (BMP). The effects would end upon completion of construction.
Noise	Short-term minor adverse effect	No effect	Construction noise would be associated with the project. The effects would end on completion of construction.
Earth Resources—Topography	No effect	No effect	No topographic changes would result from implementing the proposed action.
Earth Resources—Soils	Short-term minor adverse effect	No effect	Some soil disturbance would occur during water line installation. The disturbance would be limited to the narrow area to the east of the Peavine Trail and old railroad alignments where the water line would be installed. Disturbed soil would be stabilized after construction, as necessary.
Earth Resources—Geology	No effect	No effect	No changes in the local geology would result from implementing the proposed action.
Water Resources—Groundwater	No effect	No effect	Groundwater would be unaffected by the proposed action. No additional demand on groundwater resources would be created from implementing to proposed project. No pollutants would be introduced into groundwater during project implementation.
Water Resources—Surface waters	No effect	No effect	No surface waters are near the proposed project. Because the project involves disturbance of greater than 1 acre, a Stormwater Pollution Prevention Plan (SWPPP) and associated BMPs may be implemented to minimize soil erosion and stormwater runoff from the project locations.

Table 5
Summary of Potential Environmental Effects

Resource Area	Environmental Effects of Proposed Action	Environmental Effects of No-Action Alternative	Note
Water Resources—Wetlands	No effect	No effect	There are no wetlands in the project area. No wetlands would be affected by implementing the proposed action.
Water Resources—Floodplains	No effect	No effect	There are no floodplains in the project area. The floodplain west of the proposed project alignment would not be affected by implementing the proposed action.
Water Resources—Stormwater	No effect	No effect	No increase in the quantity of stormwater would be expected from implementing the proposed action. The proposed project would not increase the amount of impervious ground. No change in the quality of stormwater would result from the project. Because the project involves disturbance of greater than one acre, a SWPPP may be prepared and associated BMPs may be implemented to minimize stormwater runoff from the project locations.
Biological Resources—Flora	No effect	No effect	No adverse effects on local flora would result from implementing the proposed action. Some vegetation would likely be disturbed during construction, but the disturbance would not appreciably affect flora populations or viability.
Biological Resources—Fauna	No effect	No effect	No adverse effects on local fauna would result from implementing the proposed action. Ground disturbance associated with construction would not have an appreciable effect on local fauna populations or viability. A pre-construction survey of habitat determined suitable for the western burrowing owl would be done.
Biological Resources—Protected species	No effect	No effect	No adverse impacts on protected species would be expected from implementing the proposed action. There is no habitat in the project area suitable for federal protected species potentially occurring in the region.
Cultural Resources	No effect	No effect	No effects on cultural resources would be expected from implementing the proposed action. Consultation with the Arizona SHPO has confirmed this determination.

Table 5
Summary of Potential Environmental Effects

Resource Area	Environmental Effects of Proposed Action	Environmental Effects of No-Action Alternative	Note
Socioeconomics—Economic environment	Short-term minor beneficial effect	No effect	Beneficial effects to the regional economy would be expected. The expenditures and employment associated with the proposed action would increase regional employment, income, and sales volume in the local construction industry and related industries. The economic benefits would be short-term, lasting for the duration of construction.
Socioeconomics—Environmental justice	No effect	No effect	Because the proposed action would have no substantially adverse effects, it would not disproportionately affect low-income or minority populations. The short-term effects of the proposed action would affect all populations equally.
Socioeconomics—Protection of children	No effect	No effect	No environmental health risks and safety risks that could disproportionately affect children are associated with the proposed project.
Transportation	Short-term minor adverse effect	No effect	The small number of trucks needed to deliver the system components and equipment to implement the project, and trips associated with personal vehicles for construction workers, would not affect the flow of area traffic or road conditions appreciably.
Infrastructure and Utilities (PWS)	Long-term minor beneficial effect	No effect	Residents along Perkinsville Road would have a more reliable source of potable water on completion of the proposed project. The looped water line would minimize system down time and interruptions.
Hazardous and Toxic Materials and Waste	No effect	No effect	No hazardous or toxic substances would be transported, used, stored, or disposed of during project implementation. Any lubricants, oils, or petroleum products used would be those for normal equipment operation and maintenance.
Safety and Occupational Health	No effect	No effect	No change in safety or occupational health would result from implementing the proposed action. All contractors would be required to comply with normal industry standards of safety or occupational health during project implementation, and the public would be excluded from the project area during construction.

5. No-Action Alternative

Under the no-action alternative, the proposed project would not occur, so none of the adverse or beneficial effects associated with implementation of the selected alternative would result. All resource areas would remain as they are, the water distribution system would remain in the same condition it is currently in, and compared to that baseline, there would be no effects on any resource area.

6. Unavoidable Adverse Impacts

The effects described above—minor impacts primarily on air quality, noise, soils—are unavoidable impacts associated with construction projects. None of these impacts are significant.

7. Minimization of Adverse Impacts

Because the project would be undertaken in an arid environment, runoff, erosion, and soil loss associated with stormwater would not be expected. Because the project is expected to disturb at least an acre of total area, the construction contractor would be required to obtain a Stormwater Construction General Permit (AZPDES CGP 2013) in compliance with the ADEQ requirements. Implementation of the conditions of the permit, which may include preparation of a SWPPP and erosion and sediment control plan that incorporate BMPs accepted by ADEQ for stormwater control, would minimize the possibility of erosion and sediment runoff from the project.

8. Mitigation

Mitigation measures that would be implemented to address adverse impacts associated with project implementation are:

- Because the project would involve ground disturbance greater than an acre, the Town of Chino Valley would obtain coverage under the Arizona Pollutant Discharge Elimination System Construction General Permit (AZPDES CGP 2013). This permit may require the preparation of a SWPPP that would identify BMPs to minimize erosion and stormwater runoff.
- The Town of Chino Valley would do a survey of suitable habitat for the western burrowing owl, in accordance with the January 2009 Burrowing Owl Project Clearance Guidance for Landowners issued by the Arizona Game and Fish Department.

9. Cross-cutter Environmental Laws and Coordination and Consultation Process

Archeological and Historic Preservation Act

Consultation with Arizona SHPO has been done. Copies of letters sent to the Arizona SHPO and Native American tribes with a cultural affiliation in the area of interest are in Appendix B. On June 16, 2016, the Arizona SHPO concurred with the finding of no historic properties affected.

Clean Air Act

No significant adverse effects on air quality would be expected. Short-term minor adverse effects would be expected. The short-term effects would be from airborne dust and construction equipment emissions. An evaluation of the project under the GCR is not required because the proposed project would be in an area that is in attainment for all criteria pollutants.

All construction activities combined would generate emissions of CO_2 well below the CEQ threshold for greenhouse gas effect. The project would not result in a change in operational GHG emissions. Greenhouse gas and climate change effects would be minor and short term.

Coastal Barrier Resources Act

The project would not affect coastal barrier resources because the project area contains no coastal resources.

Coastal Zone Management Act

Because the project would not occur in a state coastal zone, no adverse effects on the coastal zone would result.

Endangered Species Act

The project would not be expected to adversely affect any federal- or state-listed species. Species of concern in the project area are listed in Appendix A (USFWS 2016a). Because the project area does not offer suitable or critical habitat for any of the protected species that could occur in the area, or the species are not listed as occurring in the project area, the project would have no effect on listed species, and formal consultation with the USFWS under Section 7 of the Endangered Species Act is not required.

Environmental Justice

The proposed action of improving flow and removing a dead-end water line from CWS 13-137 may positively affect any environmental justice populations (covered by EO 12898) in the project area because of improved water system reliability and fewer service interruptions.

Floodplain Management

The project would have no adverse effects on floodplains because there are no floodplains in the project area.

Protection of Wetlands

The project would have no adverse effects on wetlands because there are no wetlands in the project area.

Farmland Protection Policy Act

The project would have no adverse effects on farmlands because there are no protected farmlands in the project area (see Figure 14).

Fish and Wildlife Coordination Act

The project would have no adverse effects on protected fish and wildlife because there is no protected species habitat in the project area.

National Historic Preservation Act

The project would have no adverse effects on cultural resources. See the Arizona SHPO correspondence in Appendix B.

Safe Drinking Water Act

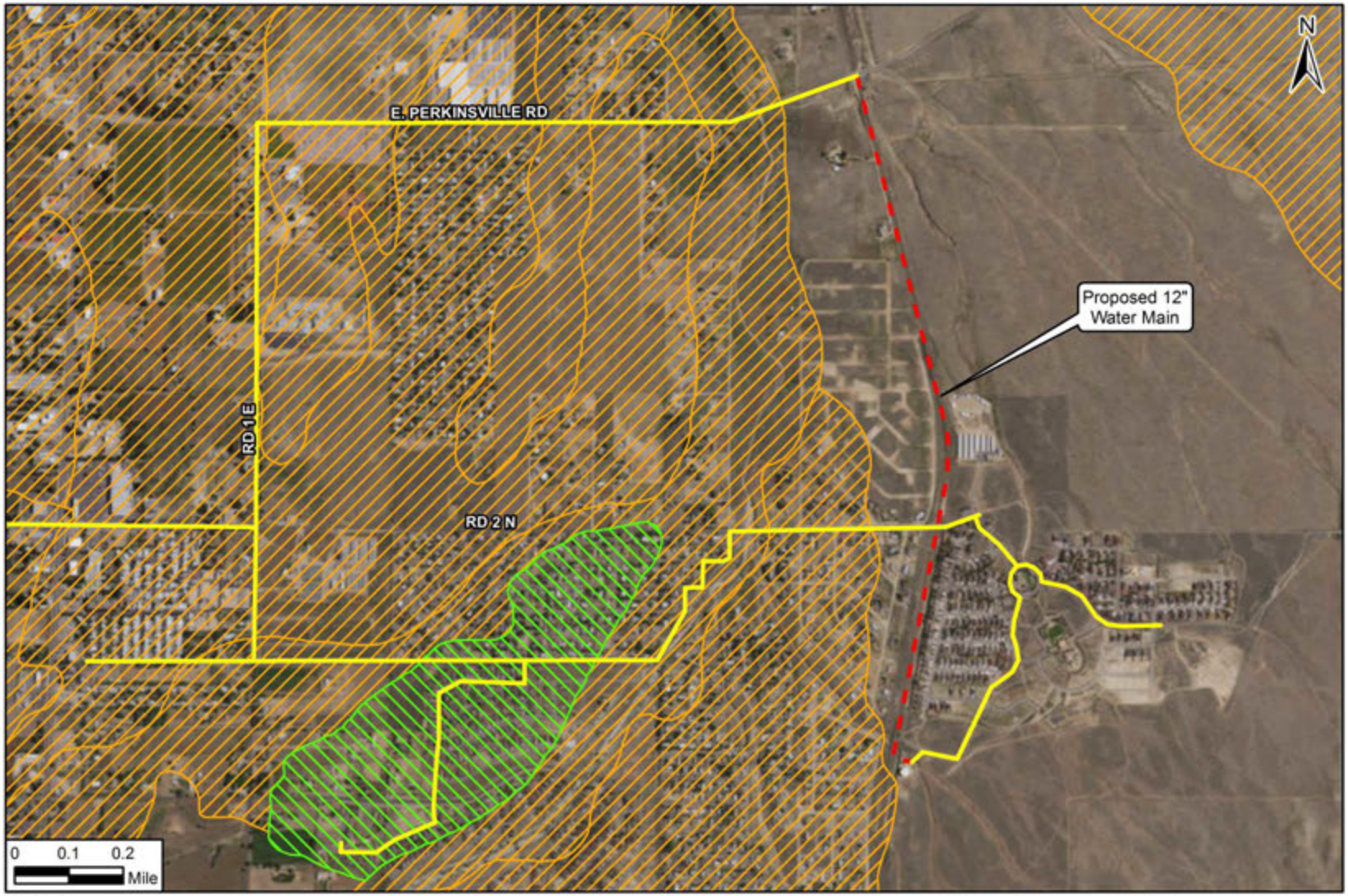
The project would have no adverse effects on drinking water supplies. No additional demand on the water supply would result from implementing the proposed project because there is no population increase or additional water usage associated with the project.

Wild and Scenic Rivers Act

The project would have no adverse effects on wild and scenic rivers because there are no wild and scenic rivers in the project area. The nearest designated river is more than 40 miles from the project area.

Essential Fish Habitat

The project would have no adverse effects on essential fish habitat because there is no essential fish habitat in the project area.



LEGEND

Proposed Water Main
Existing Water Main
Farmland of Unique Importance
Prime Farmland if Irrigated

Protected Farmlands

Chino Valley, Arizona

Figure 14

Source: USDA-NRCS 2016.

SECTION F.
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APPENDIX A

U.S. Fish and Wildlife Service Consultation
IPaC Search Results and Species List

United States Department of the Interior

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PHONE: (602)242-0210 FAX: (602)242-2513
URL: www.fws.gov/southwest/es/arizona/;
www.fws.gov/southwest/es/EndangeredSpecies_Main.html

Consultation Code: 02EAAZ00-2016-SLI-0570 July 22, 2016
Event Code: 02EAAZ00-2016-E-00801
Project Name: Chino Valley Water System Improvement

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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 one or more delineated United States Geological Survey 7.5 minute quadrangles with which your project polygon intersects. Each quadrangle covers, at minimum, 49 square miles. Please refer to the species information links found at http://www.fws.gov/southwest/es/arizona/Docs_Species.htm or http://www.fws.gov/southwest/es/arizona/Documents/MiscDocs/AZSpeciesReference.pdf for a quick reference, 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" (e.g., downstream). If the Federal action agency determines that the action may jeopardize a *proposed* species or 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: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF.

In addition to species listed under the Act, we 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 (BGEPA) (16 U.S.C. 668 *et seq.*). Both laws prohibit the take of covered species. The list of MBTA-protected birds is in 50 CFR 10.13 (for an alphabetical list see http://www.fws.gov/migratorybirds/RegulationsPolicies/mbta/MBTANDX.HTML). The Service's Division of Migratory Birds is the lead for consultations under these laws (Southwest Regional Office phone number: 505/248-7882). For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following web site: http://www.fws.gov/migratorybirds/mbpermits.html. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g. cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/southwest/es/arizona/CellTower.htm

Although bald eagles (*Haliaeetus leucocephalus*) are no longer listed under the Act, they are protected under both the BGEPA and the MBTA. If a bald eagle nest occurs in or near the proposed project area, our office should be contacted. An evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles (see http://www.fws.gov/southeast/es/baldeagle/) and the Division of Migratory Birds consulted if necessary. The National Bald Eagle Management Guidelines provide recommendations to minimize potential project impacts to bald eagles (see http://www.fws.gov/midwest/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf).

Activities that involve streams and/or wetlands are regulated by the U.S. Army Corps of Engineers (Corps). 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.

If your action is on Indian 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.

The State of Arizona protects some species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department (AGFD) for animals and Arizona Department of Agriculture for plants to determine if species protected by or of concern to the State may occur in your action area. The AGFD has an Environmental Review On-Line Tool that can be accessed at http://www.azgfd.gov/hgis/. We also recommend that you coordinate with the AGFD regarding your project.

For additional communications regarding this project, please refer to the consultation Tracking Number in the header of this letter. We appreciate your concern for threatened and endangered species. If we may be of further assistance, please contact Brenda Smith at 928/556-2157 for projects in Northern Arizona, our general Phoenix number (602/242-0210) for central Arizona, or Jean Calhoun at 520/670-6150 (x223) for projects in southern Arizona.

Sincerely,

/s/

Steven L. Spangle

Field Supervisor

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Chino Valley Water System Improvement

Official Species List

Provided by:

Arizona Ecological Services Field Office
2321 WEST ROYAL PALM ROAD, SUITE 103
PHOENIX, AZ 85021
(602) 242-0210
http://www.fws.gov/southwest/es/arizona/
http://www.fws.gov/southwest/es/EndangeredSpecies_Main.html

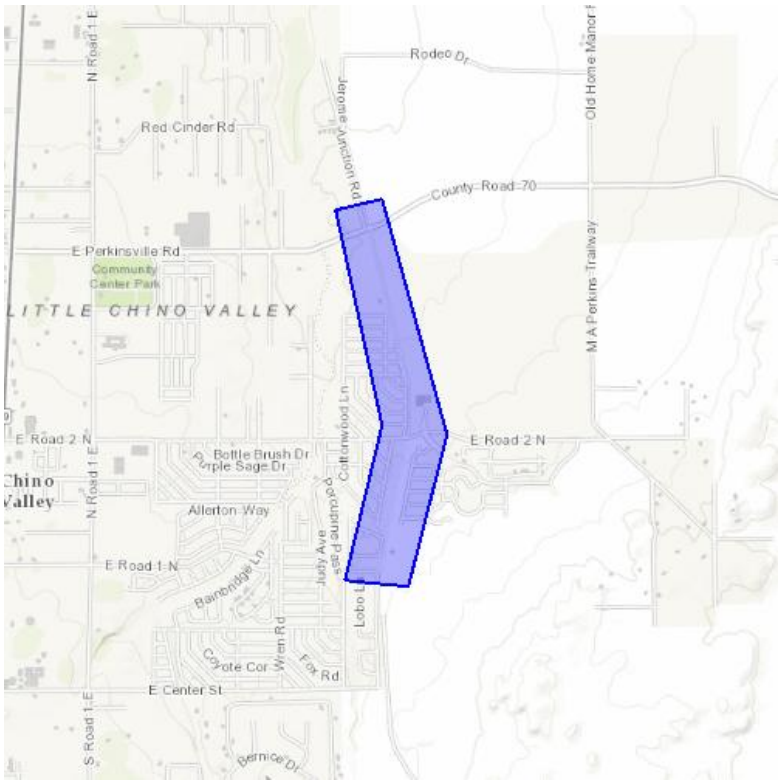
Consultation Code: 02EAAZ00-2016-SLI-0570
Event Code: 02EAAZ00-2016-E-00801

Project Type: DREDGE / EXCAVATION

Project Name: Chino Valley Water System Improvement
Project Description: Lay new water line

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-112.42700777307618 34.77406091201247, -112.42240002087783 34.76040466190759, -112.42511046119034 34.75164566251236, -112.42953752051108 34.75194259186547, -112.42691517007188 34.7609650592164, -112.43026030249894 34.77339299736982, -112.42700777307618 34.77406091201247)))

Project Counties: Yavapai, AZ

Endangered Species Act Species List

There are a total of 6 threatened or endangered species on your 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. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Yellow-Billed Cuckoo *(Coccyzus americanus)* Population: Western U.S. DPS	Threatened	Proposed	
Headwater chub *(Gila nigra)*	Proposed Threatened		
Loach minnow *(Tiaroga cobitis)* Population: Entire	Endangered	Final designated	
Roundtail chub *(Gila robusta)* Population: Lower Colorado River Basin DPS	Proposed Threatened		
spikedace *(Meda fulgida)* Population: Entire	Endangered	Final designated	
Northern Mexican gartersnake *(Thamnophis eques megalops)*	Threatened	Proposed	

Critical habitats that lie within your project area

There are no critical habitats within your project area.

APPENDIX B

Letters to Agencies and Native American Tribes

SHPO - 2016 - 0652 (131336)
ARIZONA STATE HISTORIC PRESERVATION OFFICE

NHPA

RECEIVED
MAY 31 2016
ARIZONA STATE HISTORIC PRESERVATION OFFICE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 26, 2016

James Garrison, State Historic Preservation Officer
State Historic Preservation Office
Arizona State Parks
1100 W. Washington Street
Phoenix, AZ 85007

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona

Dear Mr. Garrison,

The U.S. Environmental Protection Agency (EPA) is proposing to provide grant funding to the Town of Chino Valley in Yavapai County to expand the town's drinking water system (see enclosure 1). To comply with the substantive requirements of section 106 of the National Historic Preservation Act (NHPA) and implementing regulations at Title 36 Code of Federal Regulations (CFR) Part 800 for this undertaking, EPA has (1) described the proposed undertaking, (2) defined the area of potential effects (APE) for the undertaking, (3) provided data on the identification of historic properties, and (4) provided the Agency's finding of "no historic properties affected." This letter initiates EPA's section 106 consultation with your office on this undertaking and documents the measures that EPA proposes to take to comply with the substantive requirements of section 106 and its implementing regulations. EPA is concurrently completing efforts associated with the National Environmental Policy Act (NEPA).

Description of the Undertaking

The Town of Chino Valley proposes to use EPA's Special Appropriation Act Projects (SAAP) grant funds to extend the Town's drinking water system from its current terminus at Perkinsville Road to the water production facility south of Road 2 North (see enclosure 1). The existing 12-inch waterline has approximately 20 water service customers and is a dead-end main approximately 1.75 miles long. The proposed extension would create a looped water system, providing water service redundancy and improved reliability. The project would be split into two phases. Phase I would extend the water line from the terminus at Perkinsville Road to Road 2 North and would complete the water system loop as stated above. Phase II would extend the water main from the connection point at Road 2 North to the water production facility. Details on these phases (7,002 linear feet [lf] total) are provided in Table 1 and depicted on the attached APE map (enclosure 2). The APE can be located on the Chino Valley North Quadrangle (Arizona-Yavapai Co.) 7.5-minute U.S. Geological Survey topographic map. Construction activity would involve digging trenches along the proposed routes to lay the water lines. The lines would be located east of the Peavine Trail that runs from north of Perkinsville Road south to Road 2 North. The trail would not be

disturbed by the construction. The proposed location is adjacent to a railroad grade and was previously disturbed when the Santa Fe Railway was constructed. Staging areas will likely be located near the water line terminus on Perkinsville Road or near Road 2 North along the proposed path of the water line. No existing facilities would be disturbed by the construction. Construction equipment to be used would likely include backhoes, excavators, loaders, dump trucks, haul trucks, water trucks, utility pickup trucks, and hand-held construction equipment and tools. The water lines are 30 inches in width and would be installed at a depth of 4–6 feet below ground surface. Excavation for the proposed SAAP grant-funded replacement mains would not extend below this depth and would be no wider than 4 feet.

Table 1. Proposed SAAP-grant-funded Water Line Installation Locations

Location	Description of Phase
Perkinsville Road south to Road 2 North	Install approximately 4,554 lf of 12-inch water main to complete a system loop
Road 2 North south to the water production facility	Install approximately 2,448 lf of 12-inch water main to connect the loop to the water production facility

Area of Potential Effect

To comply with the substantive requirements of section 106 of the NHPA for this undertaking, EPA has defined the APE as the surfaces and depths that would be disturbed by excavation and water line installation activities. This includes 4,554 lf from Perkinsville Road to Road 2 North, and 2,448 lf from Road 2 North to the water production facility. The APE and width of disturbance would be minimized to the extent feasible and would not be expected to exceed 50 feet from either side of the center line. The total estimated area of disturbance would be approximately 10 acres (i.e., approximately 5 acres for water line installation and no more than 5 acres for equipment staging). No project-related activities would occur outside of the APE. A view of the northern portion of the APE, looking south toward the old Santa Fe railroad alignment and Peavine Trail alignment from E. Perkinsville Road, is shown in Figure 1.

Identification of Historic Properties

EPA has conducted a records search of the APE and surrounding areas via Arizona's Cultural Resource Inventory (known as AZSITE), which is managed by the Arizona State Museum (ASM) at the University of Arizona in Tucson (AZSITE Invoice No. 6815; see enclosure 3). The study area of the records search included a 1-mile buffer around the APE for archaeological resources and a 100-foot buffer around the APE for aboveground/built environment resources. Results of the records search are provided in enclosure 3.

The records search revealed that one survey has been conducted within the entire project APE (Agency Reference No. 5286.ASM/AZSITE 1536) and that two historic-era resources eligible for the National Register of Historic Places (NRHP) have been recorded as adjacent to the APE (AZSITE 9158/AZ N:3:33(ASM) and AZSITE 9159/AZ N:3:32(ASM)). Two additional surveys have been conducted within 1 mile of the APE (Agency Reference No. 71387.ASM and No. 4184.ASM) and two historic-era built environment resources that are listed as not evaluated for the NRHP are recorded within 1 mile of the APE (AZSITE 9151/AZ N:3:31(ASM) and AZSITE 104827/AZ N:3:71(ASM)). Table 2 lists the previous surveys within the project study area, and Table 3 lists the previously recorded historic-era resources within the project study area.

and Phoenix Railway Line and Jerome Junction, Arizona.[A] No structures were identified within 100 feet of the APE.

Discussions with Potentially Interested Parties

EPA contacted the Hopi Tribe, Chemehuevi Indian Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Hualapai Tribe, Salt River Pima-Maricopa Indian Community, Yavapai-Apache Nation, and Yavapai-Prescott Indian Tribe to identify if there were any cultural resources in the project location. EPA received one response the Yavapai-Prescott Indian Tribe stating they had n concerns. Copies of letters sent to the tribes and response are included as enclosure 4.

Finding of Effect

Consistent with substantive portions of section 106 of NHPA (36 CFR 800.4[d][1]), EPA has applied the criteria for evaluation of adverse effects and found that this proposed undertaking will not affect historic properties ("no historic properties affected"). NRHP-eligible site AZ N:3:32 (ASM)/AZSITE 9159 (railroad grade) is east of the APE, and NRHP-eligible site AZ N:3:33 (ASM)/AZSITE 9158 (Town site) is west and east of the APE and will be avoided by the project. No cultural resources are known to exist within the APE. Archaeological material uncovered during ground-disturbing activities within the APE would not have sufficient integrity to be considered historic properties because of the previously disturbed nature of the soils. As no new construction would be above ground, there would be no impact on the visual setting.

We look forward to receiving your concurrence on the APE and on our finding of "no historic properties affected" on this undertaking. Please provide any comments and concerns you have within 30 days. EPA will consider them and provide formal responses to comments. Given the schedule associated with the water main replacements and infrastructure improvements, EPA plans to proceed with this undertaking after 30 days from the confirmed receipt of this correspondence if no objections are received.

If you have questions or comments, please do not hesitate to contact me at:

Howard Kahan, Environmental Scientist
Tribal Water Section
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (WTR-3-4)
San Francisco, CA 94105-3901
Phone: (415) 972-3143
E-mail: kahan.howard@epa.gov

[A] While this survey can provide important information about the Project area, the survey may no longer constitute adequate representation of the archaeology of the area and may be considered inadequate under current state standards for archaeological investigations. The Arizona Historic Preservation Office recommends updating surveys over ten years old to ensure the most current information is available to local, state, and federal agencies for decision making purposes (Arizona Historic Preservation Office 2016 http://azstateparks.com/SHPO/downloads/SHPO_5_Old_Survey.pdf). The SHPO may require a survey of the APE, especially since 2 NRHP eligible sites are adjacent and within the APE.

Thank you for your time and consideration.

Sincerely,

Howard Kahan, Environmental Scientist
Tribal Water Section

No Historic Properties Affected

Mary Ellen Walsh 6/16/14
Arizona State Historic Preservation Office
Arizona State Parks Board

Enclosures:

Enclosure 1: Location Map
Enclosure 2: APE Map
Enclosure 3: Results of AZSITE Records Search (Confidential)
Enclosure 4: Native American Notification Letters

Chino Valley Tribal Contact List: ARIZONA STATE HISTORIC PRESERVATION OFFICE (SHPO) TRIBAL LEADERSHIP AND CULTURAL RESOURCE DIVISION CONTACT LIST (Updated 02-16-16)

TRIBE	CHAIR/PRESIDENT/GOVERNOR	CULTURAL RESOURCE DIVISION CONTACTS
Chemehuevi Indian Tribe of the Chemehuevi Reservation, California	Charles F. Wood, Chair Shirley Smith, Vice-Chair Chemehuevi Tribal Council P.O. Box 1976 Havasu Lake, CA 92363 Phone: 760/858-4219 or 4301 Fax: 760/858-5400 www.Chemehuevi.net	June Leivas, Director Cultural Resource Center culturalcenter@chemehuevi .net 760/858-1115
Colorado Indian Tribes of the Colorado River Indian Reservation, Arizona and California (CRIT) **THPO**	Dennis Patch, Chair Sylvia Homer, Vice-Chair Colorado River Tribal Council 26600 Mohave Road Parker, AZ 85344 Phone: 928/669-9211	David Harper, THPO Hill-Poolaw, President Ginger Scott, Curator Mohave Elders Committee Colorado River Indian Tribes Museum Phone: 928/669-9211 1007 Arizona Ave. Parker, AZ 85344 Phone: 928/669-5822 Fax: 928/669-1925 crit.museum@yahoo.com
Fort Mojave Indian Tribe of Arizona, California and Nevada	Timothy Williams, Chair Shan Lewis, Vice-Chair Fort Mojave Tribal Council 500 Merriman Avenue Needles, CA 92363 Phone: 760/629-4591 Fax: 760/629-5767	Linda Otero, Director lotero@fortmojave.com Joe Scerato Ahamakav Cultural Society Tribal Cultural Preservation Officer Fort Mojave Indian Tribe 760/629-1651 P.O. Box 5990 (10225 S Harbor Avenue) Mojave Valley, AZ 86440 Phone: 928/768-4475 Fax: 928/768-7996
Hopi Tribe of Arizona	Herman G. Honanie, Chair Hhonanie@hopi.nsn.us Alfred Lomahquahu, Jr., Vice-Chair The Hopi Tribe	Leigh Kuwanwisiwma, Director Lkuwanwisiwma@hopi.nsn.us Hopi Cultural Preservation Office P.O. Box 123 Kykotsmovi, AZ 86039

Chino Valley Tribal Contact List: ARIZONA STATE HISTORIC PRESERVATION OFFICE (SHPO) TRIBAL LEADERSHIP AND CULTURAL RESOURCE DIVISION CONTACT LIST (Updated 02-16-16)

	P.O. Box 123 Kykotsmovi, AZ 86039 Phone: 928/734-3000 or 3102 Fax: 928/734-2435	Phone: 928/734-3611
Hualapai Indian Tribe of the Hualapai Indian Reservation, Arizona **THPO**	Sherry J. Counts, Chair [Vacant], Vice-Chair Hualapai Tribal Council P.O. Box 179 Peach Springs, AZ 86434 Phone: 928/769-2216 Fax: 928/769-2343	Dawn Hubbs, Acting Tribal Historic Preservation Officer Department of Cultural Resources Hualapai Tribe P.O. Box 310 (878 W. Route 66) Peach Springs, AZ 86434 Phone: 928/769-2223 or 2234 Fax: 928/769-2235
Salt River Pima-Maricopa Indian Community of the Salt River Reservation, Arizona (SRPMIC)	Delbert Ray, Sr., President Martin Harvier, Vice-President Salt River Pima-Maricopa Indian Community 10005 E Osborn Road Scottsdale, AZ 85256 Phone: 480/362-7400	Shane Anton, Cultural Programs Manager Cultural and Environmental Services Salt River Pima-Maricopa Indian Community 10005 E Osborn Road Scottsdale, AZ 85256 shane.anton@srpmic-nsn.gov Phone: 480/362-6325 Cell: 480/452-2561 Fax: 480/362-5729
Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona	Thomas Beauty, Chair Robert Jackson, Sr., Vice Chair RJackson@YAN-tribe.org Yavapai-Apache Nation 2400 W Datsi Street Camp Verde, AZ 86322 Phone: 928/567-3649 Fax: 928/567-3994	Vincent Randall, Director (NAGPRA, Historian) Apache Cultural Program Camp Verde Tribal Building 2400 W Datsi Street Camp Verde, AZ 86322 Phone: 928/649-6960 Gertrude Smith, Director Yavapai Cultural Program Tribal Building 2400 W Datsi Street Camp Verde, AZ 86322 Phone: 928/649-6963 Fax: 928/567-8583
Yavapai-Prescott	Ernest Jones, Sr., President ejones@ypit.com Robert Ogo,	Linda Ogo, Director, Cultural Research Department

Chino Valley Tribal Contact List: ARIZONA STATE HISTORIC PRESERVATION OFFICE (SHPO) TRIBAL LEADERSHIP AND CULTURAL RESOURCE DIVISION CONTACT LIST (Updated 02-16-16)

Indian Tribe of the Yavapai Reservation, Arizona (YPIT)	Vice-President bogo@ypit.com Yavapai-Prescott Indian Tribe 530 E Merritt Prescott, AZ 86301 Phone: 928/445-8790 Fax: 928/778-9445	logo@ypit.com Cultural Research Program Yavapai-Prescott Indian Tribe 530 E Merritt Prescott, AZ 86301 Phone: 928/445-8790 Ext. 135 Fax: 928/778-9445

Notes:

THPO – Tribal Historic Preservation Office. These tribes have formally assumed the responsibilities of the SHPO for Section 106 consultations involving undertakings located within their external reservation boundaries under Section 101 (d) (2) of the National Historic Preservation Act.

Agency Officials should consult with a THPO in lieu of the SHPO regarding undertakings occurring within, or affecting historic properties situated within, a THPO's reservation pursuant to 36 C.F.R. 800.2 (c) (2) (i) (A). For undertakings located on a non-THPO tribe's land, Agency Officials should consult with the SHPO and the designated tribal representative on an equal basis pursuant to 36 C.F.R. 800.2 (c) (2) (i) (B). For undertakings situated off tribal lands, Agency Officials should consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by the undertaking pursuant to 36 C.F.R. 800.2 (c) (2) (ii).

SHPO maintains and distributes this list as a courtesy to Agency and Tribal Officials, and it should be considered a starting point for consulting with Indian tribes. It is based on part from information posted at the Advisory Council on Historic Preservation's web site www.achp.gov/thpo.html and the Arizona Commission on Indian Affairs web site www.indianaffairs.state.az.us/tribes/tribes.html.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 21, 2016

Mr. Charles F. Wood, Chair
Chemehuevi Tribal Council
P.O. Box 1976
Havasu Lake, CA 92363

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Mr. Wood:

The National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act of 1966 (NHPA), as well as other laws and regulations, direct the U.S. Environmental Protection Agency (EPA) to consult with Native Americans when a federal undertaking has the potential to affect their interests or concerns. EPA would like to initiate government-to-government consultation regarding grant funding for a portion of the Town of Chino Valley's (Town) water infrastructure improvement project.

The Town was authorized to receive a Special Appropriation Act Project for water and wastewater infrastructure in 2010. The Town proposes to use the SAAP grant funds to extend the Town's water system from its current terminus at Perkinsville Road to the water production facility south of Road 2 North (see enclosure 1). The existing 12-inch waterline has approximately 20 water service customers and is a dead-end main approximately 1.75 miles long. The proposed extension would create a looped water system, providing water service redundancy and improved reliability. The project would be broken into two phases. Phase I would extend the water line from the terminus at Perkinsville Road to Road 2 North and would complete the water system loop as stated above. Phase II would extend the water main from the connection point at Road 2 North to the water production facility. Details on these phases (7,002 linear feet [lf] total) are provided in Table 1 and depicted on the attached map of the area of potential effect (APE) (enclosure 2). The APE can be located on the Chino Valley North Quadrangle (Arizona-Yavapai Co.) 7.5-minute U.S. Geological Survey topographic map.

Table 1. Potentially SAAP-Grant-Funded Water Main Replacement Locations

Location	Description of Phase
Perkinsville Road south to Road 2 North	Install approximately 4,554 lf of 12-inch water main from E. Perkinsville Rd. to Road 2 North
Road 2 North south to the water production facility	Install approximately 2,448 lf of 12-inch water main between Road 2 North and the water production facility

Construction activity would involve digging trenches along the proposed routes to lay the water lines. The lines would be located east of the Peavine Trail that runs from north of Perkinsville Road south to Road 2 North. The trail would not be disturbed by the construction. The proposed location was previously disturbed when the Santa Fe Railway was constructed. Staging areas will likely be located near the water line terminus on Perkinsville Road or near Road 2 North along the proposed path of the water line. No existing facilities would be disturbed by the construction. Typical construction equipment for such a project would be used—backhoes, excavators, loaders, dump trucks, haul trucks, water trucks, utility pickup trucks, and hand-held construction equipment and tools. The water lines would be installed at a depth of 4–6 feet below ground surface. Excavation for the proposed SAAP grant-funded replacement mains would not extend below this depth and would be no wider than 4 feet.

To comply with the substantive requirements of section 106 of the NHPA for this undertaking, EPA has defined the APE as the surfaces and depths that would be disturbed by excavation and water line installation activities. This includes 4,554 feet from Perkinsville Road to Road 2 North, and 2,448 feet from Road 2 North to the water production facility. The immediate APE and width of disturbance would be minimized to the extent feasible and would not be expected to exceed 50 feet from either side of the center line. The total estimated area of disturbance would be approximately 10 acres (i.e., approximately 5 acres for water line installation and no more than 5 acres for equipment staging). No project-related activities would occur outside of the APE.

A records search also has been conducted of the APE and surrounding areas via Arizona's Cultural Resource Inventory (known as AZSITE), which is managed by the Arizona State Museum (ASM) at the University of Arizona in Tucson (AZSITE Invoice No. 6815). The study area of the records search included a 1-mile buffer around the APE for archaeological resources and a 100-foot buffer around the APE for aboveground/built environment resources.

The records search revealed that one survey has been conducted within the entire project APE (Agency Reference No. 5286.ASM/AZSITE 1536) and that two historic-era resources eligible for the National Register of Historic Places (NRHP) have been recorded as adjacent to the APE (AZSITE 9158/AZ N:3:33(ASM) and 9159/AZ N:3:32(ASM)). AZSITE 9158/AZ N:3:33(ASM) is the Santa Fe, Prescott and Phoenix Rail Line-Jerome Junction Town Site and 9159/AZ N:3:32(ASM) is the Santa Fe, Prescott and Phoenix Rail Line. In addition, two surveys have been conducted within 1 mile of the APE (Agency Reference No. 71387.ASM and No. 4184.ASM) and two historic-era built environment resources that are listed as not evaluated for the NRHP are recorded within 1 mile of the APE (AZSITE 9151/AZ N:3:31(ASM) and AZSITE 104827/AZ N:3:71(ASM)). No cultural resources were identified within the immediate APE.

None of the above recorded cultural resources are expected to be impacted by the project given the restriction of ground-disturbing activities to previously disturbed soils.

EPA would value your participation in identifying any issues or concerns that the tribe has regarding this proposed project. We particularly invite your comments regarding potential impacts on cultural resources or areas of traditional cultural importance within the area of the project. We also would appreciate notification if the project lies outside your area of interest and

you do not wish to consult or be contacted about this project in the future. You can contact me at:

Howard Kahan, Environmental Scientist
Tribal Water Section
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (WTR-3-4)
San Francisco, CA 94105-3901
Phone: (415) 972-3143
E-mail: kahan.howard@epa.gov

Written comments may be sent to the above address or via e-mail by May 22, 2016. Thank you for your consideration of these matters.

Sincerely,

Howard Kahan, Environmental Scientist
Tribal Water Section

Cc: Ms. Shirley Smith, Vice-Chair, Chemehuevi Tribal Council
Ms. June Leivas, Director Cultural Resource Center

Enclosures:
Enclosure 1: Location Map
Enclosure 2: APE Map
Enclosure 3: Results of AZSITE Records Search (CONFIDENTIAL)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 21, 2016

Mr. Dennis Patch, Chair
Colorado River Tribal Council
26600 Mohave Road
Parker, AZ 85344

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Mr. Patch:

The National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act of 1966 (NHPA), as well as other laws and regulations, direct the U.S. Environmental Protection Agency (EPA) to consult with Native Americans when a federal undertaking has the potential to affect their interests or concerns. EPA would like to initiate government-to-government consultation regarding grant funding for a portion of the Town of Chino Valley's (Town) water infrastructure improvement project.

The Town was authorized to receive a Special Appropriation Act Project for water and wastewater infrastructure in 2010. The Town proposes to use the SAAP grant funds to extend the Town's water system from its current terminus at Perkinsville Road to the water production facility south of Road 2 North (see enclosure 1). The existing 12-inch waterline has approximately 20 water service customers and is a dead-end main approximately 1.75 miles long. The proposed extension would create a looped water system, providing water service redundancy and improved reliability. The project would be broken into two phases. Phase I would extend the water line from the terminus at Perkinsville Road to Road 2 North and would complete the water system loop as stated above. Phase II would extend the water main from the connection point at Road 2 North to the water production facility. Details on these phases (7,002 linear feet [lf] total) are provided in Table 1 and depicted on the attached map of the area of potential effect (APE) (enclosure 2). The APE can be located on the Chino Valley North Quadrangle (Arizona-Yavapai Co.) 7.5-minute U.S. Geological Survey topographic map.

Table 1. Potentially SAAP-Grant-Funded Water Main Replacement Locations

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Howard Kahan, Environmental Scientist
Tribal Water Section
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (WTR-3-4)
San Francisco, CA 94105-3901
Phone: (415) 972-3143
E-mail: kahan.howard@epa.gov

Written comments may be sent to the above address or via e-mail by May 22, 2016. Thank you for your consideration of these matters.

Sincerely,

Howard Kahan, Environmental Scientist
Tribal Water Section

Cc: Ms. Sylvia Homer, Vice-Chair, Colorado River Tribal Council
Mr. David Harper, Tribal Historic Preservation Officer

Enclosures:
Enclosure 1: Location Map
Enclosure 2: APE Map
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 21, 2016

Mr. Timothy Williams, Chair
Fort Mojave Tribal Council
500 Merriman Avenue
Needles, CA 92363

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Mr. Williams:

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Phone: (415) 972-3143
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Howard Kahan, Environmental Scientist
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Cc: Shan Lewis, Vice-Chair, Fort Mojave Tribal Council
Linda Otero, Director, Ahamakav Cultural Society

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 21, 2016

Mr. Herman G. Honanie, Chair
The Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Mr. Honanie:

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Cc: Alfred Lomahquahu, Jr., Vice-Chair
Leigh Kuwanwisiwma, Director, Hopi Cultural Preservation Office

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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San Francisco, CA 94105

April 21, 2016

Ms. Sherry J. Counts, Chair
Hualapai Tribal Council
P.O. Box 179
Peach Springs, AZ 86434

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Ms. Counts:

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Cc: Ms. Dawn Hubbs, Acting Tribal Historic Preservation Officer

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 21, 2016

Mr. Delbert Ray, Sr., President
Salt River Pima-Maricopa Indian Community
10005 E Osborn Road
Scottsdale, AZ 85256

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

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Cc: Mr. Martin Harvier, Vice-President
Mr. Shane Anton, Cultural Programs Manager

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April 21, 2016

Mr. Thomas Beauty, Chair
Yavapai-Apache Nation
2400 W Datsi Street
Camp Verde, AZ 86322

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Mr. Beauty:

The National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act of 1966 (NHPA), as well as other laws and regulations, direct the U.S. Environmental Protection Agency (EPA) to consult with Native Americans when a federal undertaking has the potential to affect their interests or concerns. EPA would like to initiate government-to-government consultation regarding grant funding for a portion of the Town of Chino Valley's (Town) water infrastructure improvement project.

The Town was authorized to receive a Special Appropriation Act Project for water and wastewater infrastructure in 2010. The Town proposes to use the SAAP grant funds to extend the Town's water system from its current terminus at Perkinsville Road to the water production facility south of Road 2 North (see enclosure 1). The existing 12-inch waterline has approximately 20 water service customers and is a dead-end main approximately 1.75 miles long. The proposed extension would create a looped water system, providing water service redundancy and improved reliability. The project would be broken into two phases. Phase I would extend the water line from the terminus at Perkinsville Road to Road 2 North and would complete the water system loop as stated above. Phase II would extend the water main from the connection point at Road 2 North to the water production facility. Details on these phases (7,002 linear feet [lf] total) are provided in Table 1 and depicted on the attached map of the area of potential effect (APE) (enclosure 2). The APE can be located on the Chino Valley North Quadrangle (Arizona-Yavapai Co.) 7.5-minute U.S. Geological Survey topographic map.

Table 1. Potentially SAAP-Grant-Funded Water Main Replacement Locations

Location	Description of Phase
Perkinsville Road south to Road 2 North	Install approximately 4,554 lf of 12-inch water main from E. Perkinsville Rd. to Road 2 North
Road 2 North south to the water production facility	Install approximately 2,448 lf of 12-inch water main between Road 2 North and the water production facility

Construction activity would involve digging trenches along the proposed routes to lay the water lines. The lines would be located east of the Peavine Trail that runs from north of Perkinsville Road south to Road 2 North. The trail would not be disturbed by the construction. The proposed location was previously disturbed when the Santa Fe Railway was constructed. Staging areas will likely be located near the water line terminus on Perkinsville Road or near Road 2 North along the proposed path of the water line. No existing facilities would be disturbed by the construction. Typical construction equipment for such a project would be used—backhoes, excavators, loaders, dump trucks, haul trucks, water trucks, utility pickup trucks, and hand-held construction equipment and tools. The water lines would be installed at a depth of 4–6 feet below ground surface. Excavation for the proposed SAAP grant-funded replacement mains would not extend below this depth and would be no wider than 4 feet.

To comply with the substantive requirements of section 106 of the NHPA for this undertaking, EPA has defined the APE as the surfaces and depths that would be disturbed by excavation and water line installation activities. This includes 4,554 feet from Perkinsville Road to Road 2 North, and 2,448 feet from Road 2 North to the water production facility. The immediate APE and width of disturbance would be minimized to the extent feasible and would not be expected to exceed 50 feet from either side of the center line. The total estimated area of disturbance would be approximately 10 acres (i.e., approximately 5 acres for water line installation and no more than 5 acres for equipment staging). No project-related activities would occur outside of the APE.

A records search also has been conducted of the APE and surrounding areas via Arizona's Cultural Resource Inventory (known as AZSITE), which is managed by the Arizona State Museum (ASM) at the University of Arizona in Tucson (AZSITE Invoice No. 6815). The study area of the records search included a 1-mile buffer around the APE for archaeological resources and a 100-foot buffer around the APE for aboveground/built environment resources.

The records search revealed that one survey has been conducted within the entire project APE (Agency Reference No. 5286.ASM/AZSITE 1536) and that two historic-era resources eligible for the National Register of Historic Places (NRHP) have been recorded as adjacent to the APE (AZSITE 9158/AZ N:3:33(ASM) and 9159/AZ N:3:32(ASM)). AZSITE 9158/AZ N:3:33(ASM) is the Santa Fe, Prescott and Phoenix Rail Line-Jerome Junction Town Site and 9159/AZ N:3:32(ASM) is the Santa Fe, Prescott and Phoenix Rail Line. In addition, two surveys have been conducted within 1 mile of the APE (Agency Reference No. 71387.ASM and No. 4184.ASM) and two historic-era built environment resources that are listed as not evaluated for the NRHP are recorded within 1 mile of the APE (AZSITE 9151/AZ N:3:31(ASM) and AZSITE 104827/AZ N:3:71(ASM)). No cultural resources were identified within the immediate APE.

None of the above recorded cultural resources are expected to be impacted by the project given the restriction of ground-disturbing activities to previously disturbed soils.

EPA would value your participation in identifying any issues or concerns that the tribe has regarding this proposed project. We particularly invite your comments regarding potential impacts on cultural resources or areas of traditional cultural importance within the area of the project. We also would appreciate notification if the project lies outside your area of interest and

you do not wish to consult or be contacted about this project in the future. You can contact me at:

Howard Kahan, Environmental Scientist
Tribal Water Section
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (WTR-3-4)
San Francisco, CA 94105-3901
Phone: (415) 972-3143
E-mail: kahan.howard@epa.gov

Written comments may be sent to the above address or via e-mail by May 22, 2016. Thank you for your consideration of these matters.

Sincerely,

Howard Kahan, Environmental Scientist
Tribal Water Section

Cc: Mr. Robert Jackson, Sr., Vice Chair
Mr. Vincent Randall, Director, Apache Cultural Program

Enclosures:
Enclosure 1: Location Map
Enclosure 2: APE Map
Enclosure 3: Results of AZSITE Records Search (CONFIDENTIAL)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 21, 2016

Mr. Ernest Jones, Sr., President
Yavapai-Prescott Indian Tribe
530 E. Merritt
Prescott, AZ 86301

Subject: Section 106 Consultation Regarding the U.S. Environmental Protection Agency Special Appropriation Act Projects Grant Funding of a Water Infrastructure Improvement Project for the Town of Chino Valley, Arizona
Region 9 Tracking number: 10-485

Dear Mr. Jones, Sr.:

The National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act of 1966 (NHPA), as well as other laws and regulations, direct the U.S. Environmental Protection Agency (EPA) to consult with Native Americans when a federal undertaking has the potential to affect their interests or concerns. EPA would like to initiate government-to-government consultation regarding grant funding for a portion of the Town of Chino Valley's (Town) water infrastructure improvement project.

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The records search revealed that one survey has been conducted within the entire project APE (Agency Reference No. 5286.ASM/AZSITE 1536) and that two historic-era resources eligible for the National Register of Historic Places (NRHP) have been recorded as adjacent to the APE (AZSITE 9158/AZ N:3:33(ASM) and 9159/AZ N:3:32(ASM)). AZSITE 9158/AZ N:3:33(ASM) is the Santa Fe, Prescott and Phoenix Rail Line-Jerome Junction Town Site and 9159/AZ N:3:32(ASM) is the Santa Fe, Prescott and Phoenix Rail Line. In addition, two surveys have been conducted within 1 mile of the APE (Agency Reference No. 71387.ASM and No. 4184.ASM) and two historic-era built environment resources that are listed as not evaluated for the NRHP are recorded within 1 mile of the APE (AZSITE 9151/AZ N:3:31(ASM) and AZSITE 104827/AZ N:3:71(ASM)). No cultural resources were identified within the immediate APE.

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EPA would value your participation in identifying any issues or concerns that the tribe has regarding this proposed project. We particularly invite your comments regarding potential impacts on cultural resources or areas of traditional cultural importance within the area of the project. We also would appreciate notification if the project lies outside your area of interest and

you do not wish to consult or be contacted about this project in the future. You can contact me at:

Howard Kahan, Environmental Scientist
Tribal Water Section
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (WTR-3-4)
San Francisco, CA 94105-3901
Phone: (415) 972-3143
E-mail: kahan.howard@epa.gov

Written comments may be sent to the above address or via e-mail by May 22, 2016. Thank you for your consideration of these matters.

Sincerely,

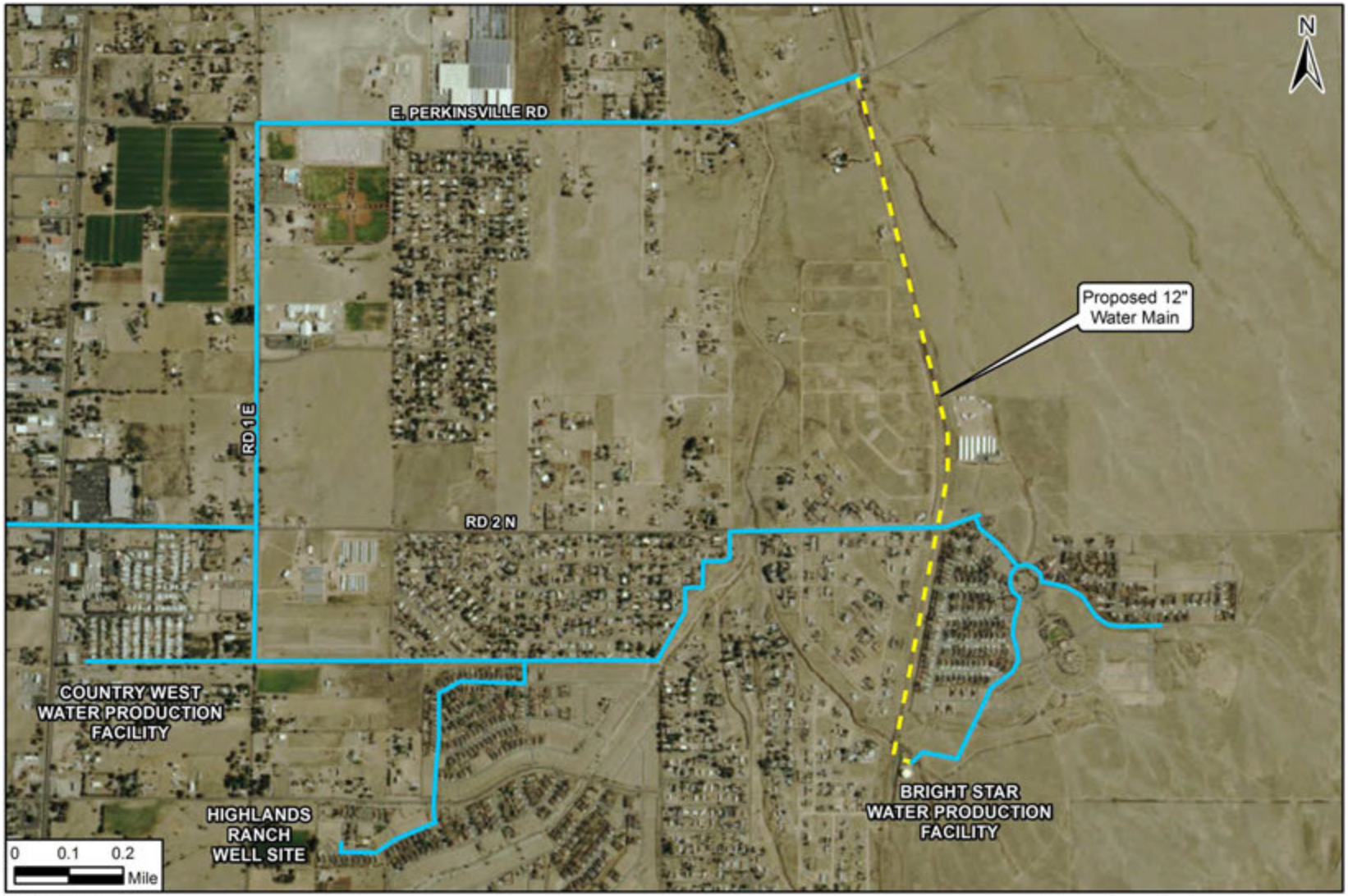
Howard Kahan, Environmental Scientist
Tribal Water Section

Cc: Mr. Robert Ogo, Vice-President
Ms. Linda Ogo, Director, Cultural Research Department

Enclosures:
Enclosure 1: Location Map
Enclosure 2: APE Map
Enclosure 3: Results of AZSITE Records Search (CONFIDENTIAL)

The following three Enclosures were included with the letters to the Native American Tribes

Enclosure 1: Location Map



LEGEND

Proposed Water Main

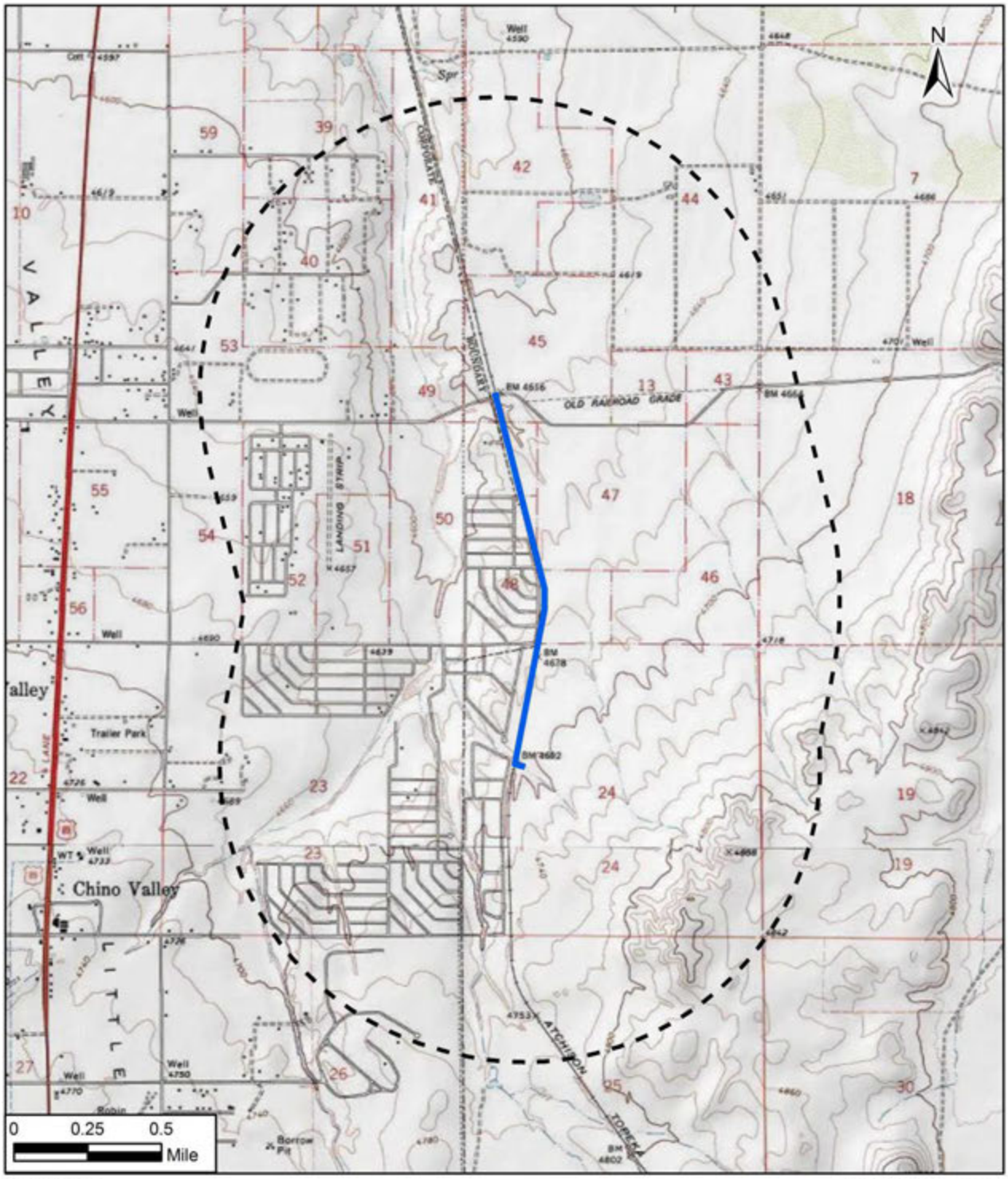
Existing Water Main

Project Location

Chino Valley, Arizona

Enclosure 1

Enclosure 2: APE Map



LEGEND

Project Area

Project Area 1-Mile Radius

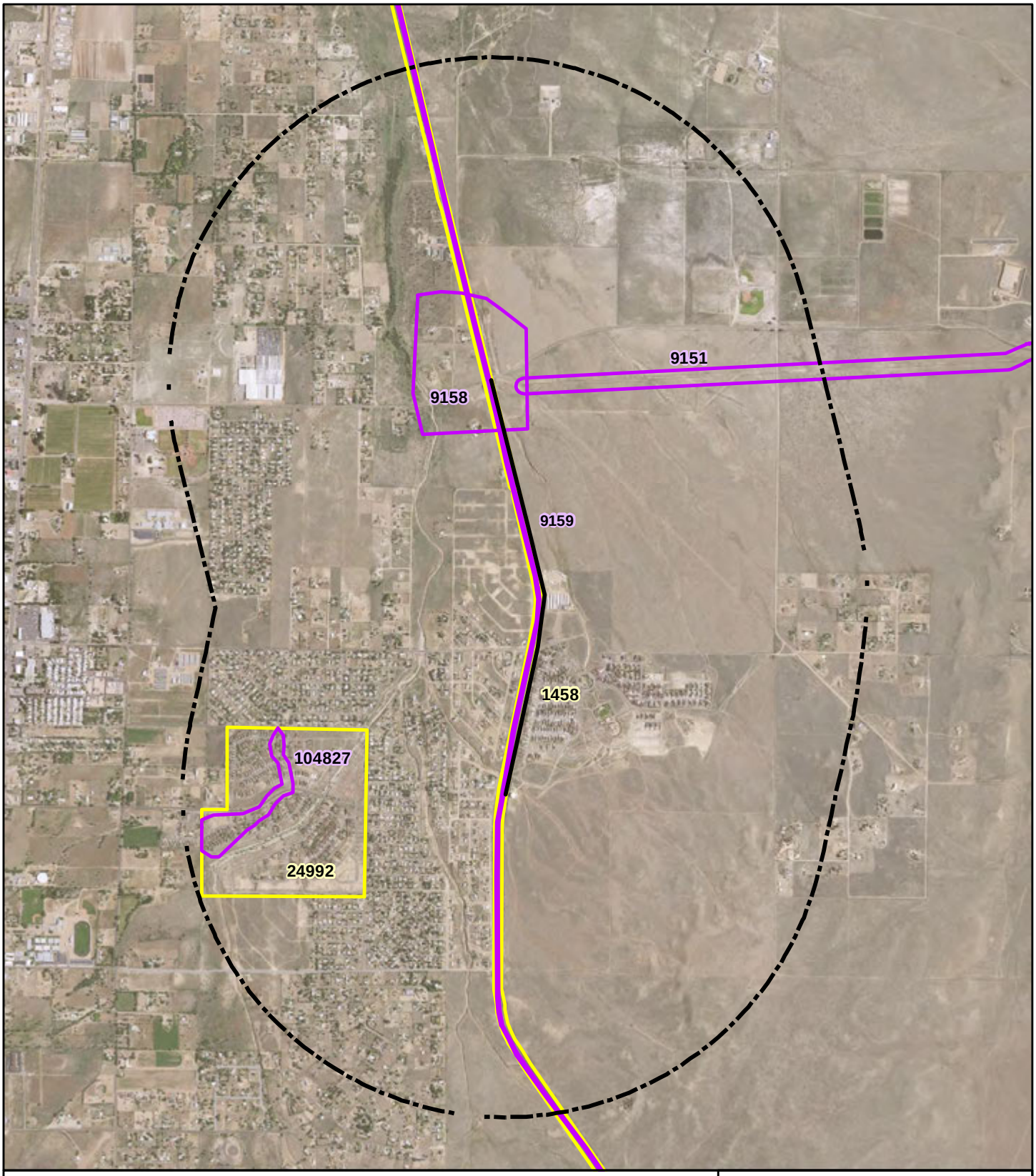
APE Map

Chino Valley, Arizona

Enclosure 2

Source: USGS Topo Quadrangles (Chino Valley North, Chino Valley South).

Enclosure 3: Results of AZSITE Records Search (CONFIDENTIAL)



Legend

- Pipeline
- 1-mile Buffer
- Previous Survey
- Recorded Site

N

0 1,000 2,000

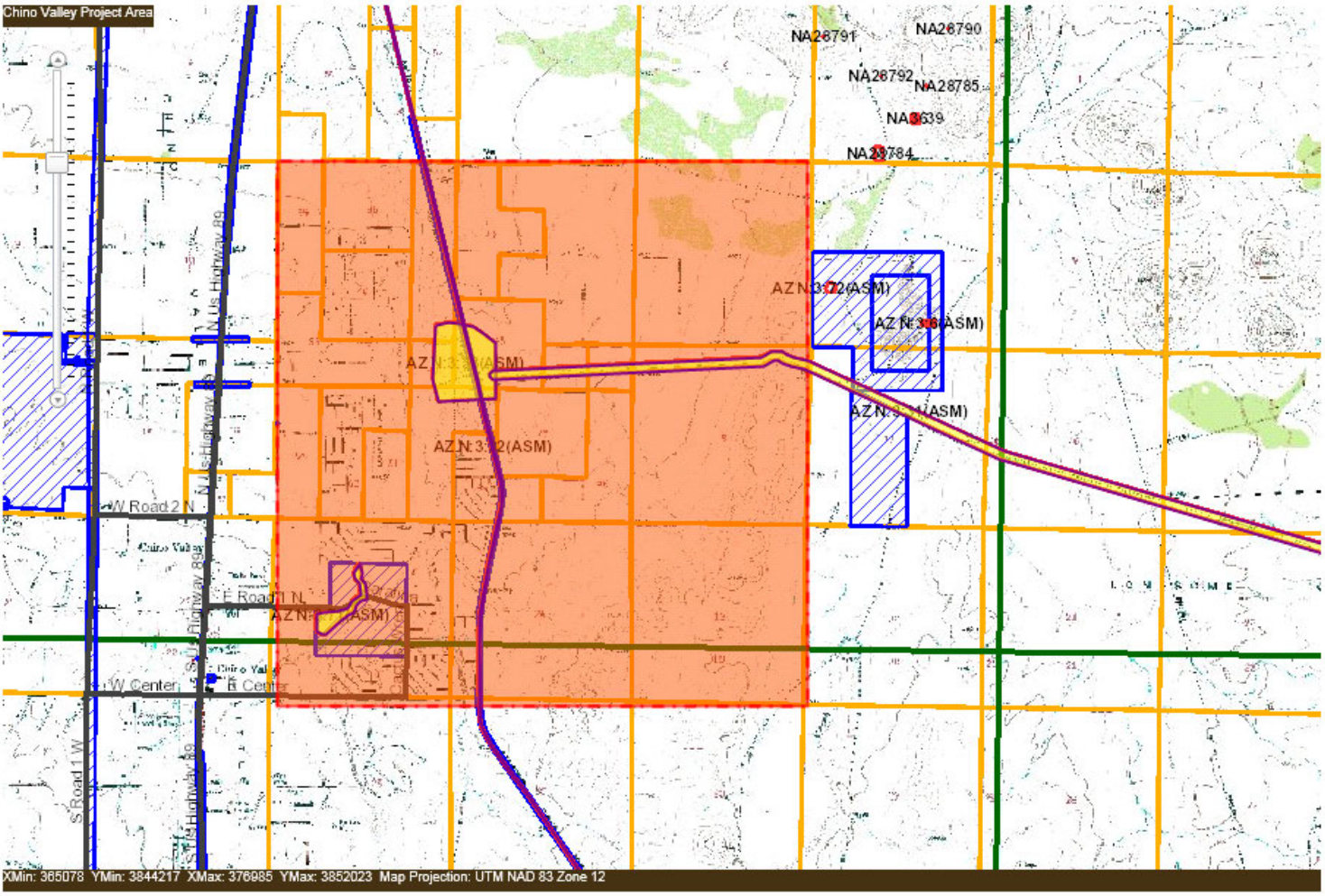
Feet

Previously Recorded Archeological Resources and Surveys within 1-mile of the Project

Yavapai County, AZ

TETRA TECH

R:\Temp\Chino\maps\Previously_Recorded_Sites_Surveys.mxd

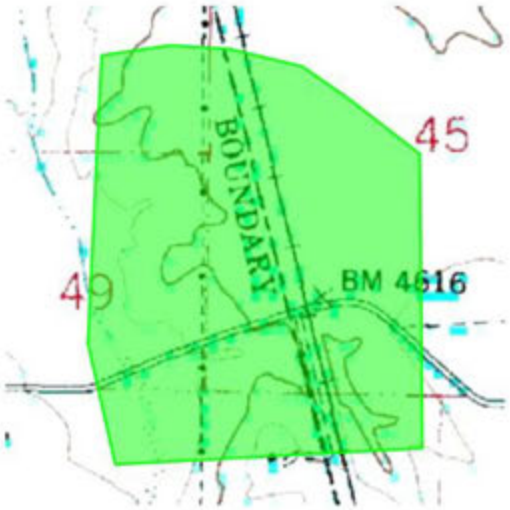


Azsite Print Map
https://azsite3.asurite.ad.asu.edu/azsite_staging/Map/Print.htm
2/25/2016 11:22 AM - Screen Clipping

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SITE NUMBER: AZ N:3:33(ASM)

SITE INFORMATION



Site Number: AZ N:3:33(ASM)

Site Name: SANTA FE, PRESCOTT AND PHOENIX RAIL LINE

Alternate Name: Jerome Junction townsite

Agency Assigning Number: ASM

AZSITE Number: 9158

How Was Location Determined: EXIST

Accuracy of Location:

Site Location is Plottable: Not Recorded

Initial Recorder: INDERMILL, R.; GLIDDEN, C.; MORGAN, C.; HAMBLIN, A.

Institution: RHI

Initial Recording Date: 9/5/94

Data Entry Person:

Date Entered: 1/22/1997 12:00:00 AM

Date this Record Uploaded into AZSITE:

Date Site Boundary was Last Updated:

Site has been Excavated/Tested: Not Recorded

Site has been Destroyed: Not Recorded

Owner:

Owner Address:

Property Address:

Resource Street Address:

City-County-Zip Code:

Setting

Open Air: Yes

Rockshelter: No

Cave: No

Deposition: Not Recorded

Dimensions in Meters: X

Recorded Artifact Types

Prehistoric Ceramics: Not Recorded

Chipped Stone: Not Recorded

Shell: Not Recorded

Human Remains: Not Recorded

Glass: Present

Ground Stone: Not Recorded

Faunal Remains: Present

Historic Ceramics: Present

Historic Wood: Present

Fire Cracked Rock: Not Recorded

Plant Remains: Not Recorded

Metal: Present

OTHER SITE NUMBERS:

Alternate Site Number	Agency	Remarks
AZ N:3:33(ASM)		

TOWNSHIP, RANGE, SECTION

O Baseline = Gila/Salt Basline

baseline	township	Township_Direction	range	Range_Direction	section	Section_Quarter

CENTER POINT UTMS:

NAD83UTMZ12

east	north	USGS Quad Name
369238	3848788	CHINO VALLEY NORTH

NATIONAL REGISTER STATUS:

Recommendation	Whose_Opinion	Date_of_Opinion	Authoritative Agency	Reference	Event	Person	Artistic	Research	SHPONumber
Eligible Individually	SHPO	7/14/2005		2000	1	0	0	0	SHPO-2005-1321
Considered Eligible	RECORDER	9/5/94			0	0	0	0	

TEMPORAL COMPONENTS:

Component	remarks	Time_Period	siteuse
late historic		AD1900-1950	

CULTURAL AFFILIATIONS:

Affiliation	remarks
Euro-American	
Mexican-American	

HISTORIC DISTRICT:

SITE REFERENCES:

Agency_Ref_num	AZSITE_Ref_Num	Authors	citation
5286.ASM	1536	Indermill (1995)	Indermill, Roc H. 1995 The Peavine Trail Corridor: An Archaeological Survey and Cultural Resource Inventory of 5.7 Miles of the Santa Fe, Prescott and Phoenix Railway Line and Jerome Junction, Arizona. Flagstaff, Arizona: RHI.

SITE HISTORY:

Activity	remarks	AZSITE_Proj_Num	Project_End_Date	Site_Condition	Collections_
Survey		1458			0

FEATURES:

Feature_Type	remarks	frequency
other	ONE FUEL-OIL SYSTEM DESCRIBED AS FOLLOWS: THE COURSED RUBBLE WALLS OF THE FUEL OIL-RECEIVING PIT WERE BUILT OF TAPEATS SANDSTONE BLOCKS LAID IN PORTLAND CEMENT MORTAR. THESE WALLS ARE AT LEAST THREE COURSES AND 25 INCHES DEEP. THE INSIDE OF THE PIT MEAS	1
scatter trash	A SPARSE SCATTER OF ABOUT 20 GLASS AND CERAMIC SHERDS INCLUDING ONE RIM SHERD OF A WHITEWARE VESSEL HAVING AN UNDERGLAZE TRANSFER-PRINT OF LATTICE AND FLORAL DESIGN. THIS VESSEL MAY HAVE BEEN A VASE OR COFFEE SERVICE. THE BOTTLE GLASS INCLUDED BODY SHER	1
other	THERE WERE AT LEAST THREE HISTORIC PLANTINGS OF SOUTHERN CATALPA TREES. TWO SURVIVE. ONE PLANTING OF THREE TREES STANDS IMMEDIATELY NORTH OF THE FUEL OIL-RECEIVING PIT. ONE TREE MAY BE DEAD. A NEARBY SPOIL-PILE OF SMALL BOULDERS SUGGESTS THAT THE AREA	4
corral	LIVESTOCK CHUTE (RAMP) BUILT IN 1949 BY A "SANTA FE" (SFP&P) CREW. THE ADJOINING CORRAL WAS BUILT BY MEMBERS OF THE PERKINS FAMILY ON THEIR RANCH IN ABOUT 1949.	1
other	STACKS OF MORE THAN 100 RAILROAD TIES PRESUMABLY LEFT BEHIND AFTER THE 1992-1993 SALVAGE OPERATION.	1
scatter trash	THIS SPARSE, DISBURSED SCATTER OF HISTORIC TRASH EXTENDS NORTHWARD FOR ABOUT 870 FT. FROM THE INTERSECTION OF PERKINSVILLE ROAD AND THE	1

	SFP&P LINE. RAILROAD AVENUE FORMS ITS WESTERN BOUNDARY; THE SFP&P ROADBED FORMS ITS EASTERN EDGE. THE WIDTH OF THIS S	
soil control structure	THERE ARE TWO EXAMPLES OF EROSION-CONTROL DEVICES. RIPRAP, MADE OF BASALT COBBLES (CINDERS) AND BROKEN TONES, WAS BUILT ONTO THE SIDE-SLOPE OF THE SFP&P ROADWAY AND THE SOUTHWESTERNLY DRAINAGE INTO COPPER WASH. THIS RIPRAP MEASURES APPROX. 201'. A GROU	2
communication system linear	THE UVP&P ERECTED A SINGLE TELEGRAPH LINE PARALLEL TO ITS RAIL IN 1894 TO CONNECT JEROME JUNCTION TO JEROME. THIS POLE LINE WAS SALVAGED BEFORE 1983. A TELEPHONE SYSTEM MAY HAVE AUGMENTED THIS TELEGRAPH SYSTEM.	1
historic structure	THE JEROME JUNCTION TOWNSITE WAS OCCUPIED FROM 1894 TO ABOUT 1920-1923. THE UVP&P OWNED THE HOTEL, 2 STORES, A SCHOOLHOUSE (ALSO USED AS A CHURCH), A POST OFFICE BUILDING, 2 SALOONS, ITS AGENT'S HOUSE, 15 OTHER HOUSES, 1 BUNKHOUSE, 30+ OUTHOUSES AND SHEDS	1

DIAGNOSTICS:

Diagnostics	remarks	frequency

ANALYZED FAUNAL REMAINS:

IngCount	ID_Certainty	Class	Order	Family	Genus	Species	Name	Component	Notes

Site Remarks THE SITE OF JEROME JUNCTION (A.K.A. JUNCTION AND COPPER; AZ N:3:33) CONSISTS OF THE RUINS OF A RAILROAD STATION AND A TOWN. THIS STATION WAS SHARED BY THE SANTA FE, PRESCOTT AND PHOENIX RAILWAY (SFP&P) AND THE UNITED VERDE AND PACIFIC RAILWAY (UV&P) FROM 1894 UNTIL THE UV&P WAS ABANDONED IN 1920. MOST OF THE RAILROAD YARD WAS LOCATED WITHIN THE PEAVINE TRAIL TOWNSITE OCCUPIED ADJACENT LAND WHICH IS OUTSIDE THE PROJECT AREA AND NOW PRIVATELY OWNED. THE MAIN TRACK OF THE SFP&P LINE EXTENDED THROUGH THIS YARD. THIS OVERLAP CONSISTUTES 10.1 ACRES (4 HA), ALL WITHIN THE PROJECT AREA. THIS OVERLAP WAS SURVEYED, BUT NO RECONNAISSANCE OR ARHCAEOLOGICAL SURVEY WAS CONDUCTED ON THE 83.9 ACRES OF JEROME JUNCTION LOCATED ON PRIVATE PROPERTY. THIS SITE BOUNDARY, AND THE UTMS WERE EXTRAPOLATED FROM THE CHIEF ENGINEER'S (1914) STATION, TRACKS AND STRUCTURES MAP OF JEROME JUNCTION JEROME JUNCTION HAD AT LEAST 22 EXTANT FEATURES IN 1914. THE FEATURES WITHIN THE PROJECT AREA INCLUDED THREE CONSECUTIVE DEPOTS, SCALES, TRANSFER PLATFORM, LIVESTOCK CHUTE, OVERHEAD TRESTLY, COKE BINS, FUEL-OIL PUMPS AND STORAGE AND DISPENSING TANKS. THESE FEATURES WERE SALVAGED STARTING IN 1920. THE THIRD DEPOT WAS RETIRED IN 1934. THE FEATURES LOCATED ON THE SFP&P LINE WITHIN THE PROJECT AREA INCLUDE THE GRADE, ROADBED AND BALLAST. THIS SEGMENT WAS ABANDONED IN 1983, AND IT WAS SALVAGED IN 1992-1993.

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SITE NUMBER: AZ N:3:31(ASM)

SITE INFORMATION

Site Number: AZ N:3:31(ASM)

Site Name: UNITED VERDE & PACIFIC RAILROAD

Alternate Name:

Agency Assigning Number: ASM

AZSITE Number: 9151

How Was Location Determined: EXIST

Accuracy of Location:

Site Location is Plottable: Not Recorded

Initial Recorder: SHEPARD, K.; DARRINGTON, G.; SAVAGE, R.

Institution: DAMES

Initial Recording Date: 8/9/94

Data Entry Person:

Date Entered: 1/22/1997 12:00:00 AM

Date this Record Uploaded into AZSITE:

Date Site Boundary was Last Updated:

Site has been Excavated/Tested: Not Recorded

Site has been Destroyed: Not Recorded

Owner:

Owner Address:

Property Address:

Resource Street Address:

City-County-Zip Code:

Setting

Open Air: Yes

Rockshelter: No

Cave: No

Deposition: Not Recorded

Dimensions in Meters: X

Recorded Artifact Types

Prehistoric Ceramics: Not Recorded

Chipped Stone: Not Recorded

Shell: Not Recorded

Human Remains: Not Recorded

Glass: Not Recorded

Ground Stone: Not Recorded

Faunal Remains: Not Recorded

Historic Ceramics: Not Recorded

Historic Wood: Not Recorded

Fire Cracked Rock: Not Recorded

Plant Remains: Not Recorded

Metal: Present

OTHER SITE NUMBERS:

Alternate Site Number	Agency	Remarks
AR-03-09-01-691		
AZ N:3:31(ASM)		

TOWNSHIP, RANGE, SECTION

O Baseline = Gila/Salt Basline

baseline	township	Township_Direction	range	Range_Direction	section	Section_Quarter

CENTER POINT UTMS:

NAD83UTMZ12

east	north	USGS Quad Name
383517	3845443	CHINO VALLEY NORTH

NATIONAL REGISTER STATUS:

Recommendation	Whose_Opinion	Date_of_Opinion	Authoritative Agency	Reference	Event	Person	Artistic	Research	SHPONumber
Not evaluated	recorder	08/04/1994			0	0	0	0	
Not evaluated	recorder				0	0	0	0	
Not evaluated	SHPO - JM	6/26/2002			0	0	0	0	

Not evaluated	SHPO	6/26/2002		2000					SHPO-2000-3382

TEMPORAL COMPONENTS:

Component	remarks	Time_Period	siteuse

CULTURAL AFFILIATIONS:

Affiliation	remarks
Euro-American	

HISTORIC DISTRICT:

SITE REFERENCES:

Agency_Ref_num	AZSITE_Ref_Num	Authors	citation
4184.ASM	936	Bruder and others (1994)	Bruder, J. Simon, Kristopher S. Shepard, Glenn P. Darrington, andA.E. Rogge 1994 Cultural Resource Survey for the Yavapai Substation and Transmission Line Facilities Project. Dames & Moore Intermountain Cultural Resource Services Research Paper 20. Phoenix, Arizona.

SITE HISTORY:

Activity	remarks	AZSITE_Proj_Num	Project_End_Date	Site_Condition	Collections_
Survey		1247			0

FEATURES:

Feature_Type	remarks	frequency
railroad track bed		1

DIAGNOSTICS:

Diagnostics	remarks	frequency

ANALYZED FAUNAL REMAINS:

IngCount	ID_Certainty	Class	Order	Family	Genus	Species	Name	Component	Notes

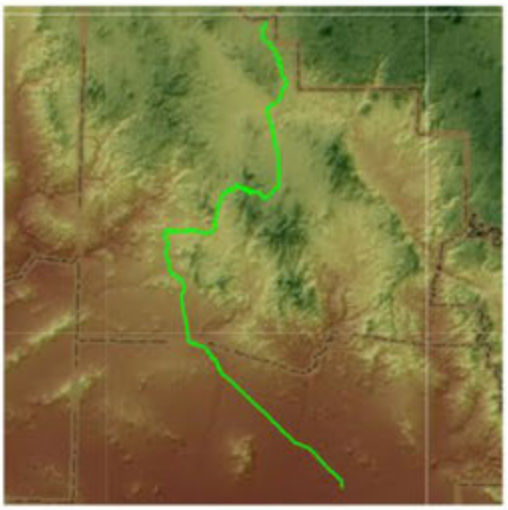
Site Remarks SITE IS RAILROAD GRADE FOR THE UNITED VERDE AND PACIFIC RAILROAD, APPROX. 26 MILES LONG. SOME SEGMENTS WITHIN THE FOOTHILLS AREA HAVE BEEN CUT INTO NUMEROUS DISCONTINUOUS STRETCHES BY DEEPLY INCISED DRAINAGES THAT HAVE WASHED AWAY ENTIRE SEGMENTS. SOME OF THE EXISTING ALIGNMENT WITHIN THE FOOTHILLS AREA WITHIN ABOUT 1 MILE OF THE EXISTING 500KV TRANSMISSION LINE IS NOW USED AS A SECTION OF FOREST ROAD 318A. THIS SECTION LACKS A BUILD UP GRADE AND IS ESSENTIALLY UNRECOGNIZABLE AS A FORMER RAILROAD ALIGNMENT. GRADE IS MORE INTACT ON THE LEVEL TERRAIN OF THE LONESOME VALLEY WEST OF THE PROJECT AREA. MUCH OF THE ROADWAY IS ON AN ELEVATED BERM RECOGNIZABLE AS A RAILROAD GRADE. EAST OF THE PROJECT AREA, THE ALIGNMENT IS EASILY FOLLOWED THROUGH THE MOUNTAINOUS TERRAIN BECAUSE IT IS

USED AS FOREST ROADS 318 AND 318A. LOCATIONS OF A DISMANTLED TRESTLE AND 2 ROCK MASONRY CULVERTS WERE NOTED. THE ALIGNMENT CONSISTS OF 3 SEGMENTS: 1: LONESOME VALLEY SEGMENT, 8.8 MI. LONG 2: FOOTHILLS SECTION, 3.5 MI. LONG, COINCIDENT WITH THIS PROJECT AREA. 3: BLACK HILLS SEGMENT, 13.7 MI. LONG, NOW ALL USED AS FOREST RDS 318 & 318A. THE RAILROAD IS IMPORTANT HISTORICALLY (NRHP CRITERION A) BUT LACKS INTEGRITY AND IS THEREFORE NOT ELIGIBLE.

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SITE NUMBER: AZ N:3:32(ASM)

SITE INFORMATION



Site Number: AZ N:3:32(ASM)

Site Name: SANTA FE, PRESCOTT, AND PHOENIX RAILWAY LINE

Alternate Name: Santa Fe, Prescot, and Phoenix Railway Line historic alignment

Agency Assigning Number: ASM

AZSITE Number: 9159

How Was Location Determined: DIGIT

Accuracy of Location:

Site Location is Plottable: Yes

Initial Recorder: INDERMILL, R.; GLIDDEN, C.; MORGAN, C.; HAMBLIN, A.

Institution: RHI

Initial Recording Date: 9/5/1994

Data Entry Person:

Date Entered: 7/2/2002 12:00:00 AM

Date this Record Uploaded into AZSITE: 8/26/2013 12:00:00 AM

Date Site Boundary was Last Updated: 2/7/2014 12:00:00 AM

Site has been Excavated/Tested: No

Site has been Destroyed: Not Recorded

Owner: Arizona State Land Department

Owner Address:

Property Address:

Resource Street Address:

City-County-Zip Code:

Setting

Open Air: Yes

Rockshelter: No

Cave: No

Deposition: Surface

Dimensions in Meters: X

Recorded Artifact Types

Prehistoric Ceramics: Not Recorded

Chipped Stone: Not Recorded

Shell: Not Recorded

Human Remains: Not Recorded

Glass: Present

Ground Stone: Not Recorded

Faunal Remains: Not Recorded

Historic Ceramics: Present

Historic Wood: Present

Fire Cracked Rock: Not Recorded

Plant Remains: Not Recorded

Metal: Present

OTHER SITE NUMBERS:

Alternate Site Number	Agency	Remarks
AZ N:7:161(ASM)	asm	This number has been combined herein.
AZ N:3:32(ASM)	asm	

TOWNSHIP, RANGE, SECTION

O Baseline = Gila/Salt Basline

baseline	township	Township_Direction	range	Range_Direction	section	Section_Quarter
G&S	14	N	1	W	2	SE4NE4NE4
G&S	18	N	2	W	36	
G&S	1	N	3	E	7	
G&S	14	N	2	W	26	
G&S	17	N	2	W	3	
G&S	15	N	1	W	30	
G&S	15	N	1	W	18	
G&S	15	N	1	W	19	
G&S	10	N	6	W	35	SE4NW4SE4
G&S	3	N	1	E	22	NE4SE4SE4
G&S	15	N	1	W	31	
G&S	14	N	1	W	18	
G&S	14	N	4	W	11	SE
G&S	14	N	4	W	14	NW

G&S	14	N	1	W	6	
G&S	14	N	1	W	7	
G&S	14	N	4	W	15	E2&NW4

CENTER POINT UTMS:

NAD83UTMZ12

east	north	USGS Quad Name
379042	3719337	ASH FORK

NATIONAL REGISTER STATUS:

Recommendation	Whose_Opinion	Date_of_Opinion	Authoritative Agency	Reference	Event	Person	Artistic	Research	SHPONumber
Considered Eligible	RECORDER	9/5/1994			0	0	0	0	
Eligible Contributor	SHPO	11/24/2010		2000	1	0	0	0	SHPO-2010-0826
Eligible Individually	SHPO	10/16/2006		2000	1	0	0	0	SHPO-2006-2221
Eligible Individually	SHPO	11/25/2003		2000	1	0	0	0	SHPO-2003-2348
Eligible Individually	SHPO	12/27/2005		2000	1	0	0	0	SHPO-2005-2724
Eligible Individually	SHPO	4/12/2003		2000	1	0	0	0	SHPO-2002-1508
Eligible Individually	SHPO	7/16/2007		2000	1	0	0	0	SHPO-2006-1401
Eligible Individually	SHPO	8/14/2008		2000	1	0	0	0	SHPO-2008-1263
Eligible Individually	SHPO	3/12/2004		2000	1	0	0	0	SHPO-2003-1595
Eligible Individually	SHPO	4/20/2009		2000	1	0	0	0	SHPO-2009-0475
Eligible Individually	SHPO	9/6/2008		2000	1	0	0	0	SHPO-2008-0888
	SHPO	9/7/2008		2000	1	0	0	0	

Eligible Individually									SHPO-2008-1090
Ineligible Individually	SHPO	3/12/2001		2000	1	0	0	0	SHPO-2001-3048
Not considered eligible	recorder	09/20/2005		13630					
Eligible Individually	SHPO	11/15/2006		2000	1	0	0	0	SHPO-2006-2439
Eligible Individually	SHPO	12/11/2008		2000	1	0	0	0	SHPO-2008-1775
Eligible Individually	SHPO	12/21/2004		2000	1	0	0	0	SHPO-2004-0858
Eligible Individually	SHPO	12/26/2002		2000	1	0	0	0	SHPO-2002-2784
Eligible Individually	SHPO	2/22/2006		2000	1	0	0	0	SHPO-2006-0296
Eligible Individually	SHPO	3/11/2005		2000	1	0	0	0	SHPO-2005-2116
Considered Eligible	recorder	9/29/2000							
Considered Eligible	recorder	2/27/2001							
Considered Eligible	recorder	07/17/2001							
Determined Eligible	SHPO - DJ	2/11/2004			-1	0	0	0	
Not evaluated	SHPO - JM	4/23/2001			0	0	0	0	
Determined Eligible	SHPO - DJ	11/25/2003			-1	0	0	0	
Not considered eligible	SHPO - DJ	6/20/2002			0	0	0	0	
Not evaluated	SHPO - DJ	12/27/2001			-1	0	0	0	
Determined Eligible	SHPO - DJ	12/4/2001			-1	0	0	0	

Not considered eligible	SHPO - DJ	12/3/2001			0	0	0	0	
Considered Eligible	Recorder	07/26/2010		19749					
Considered Eligible	Recorder	8/30/2005		12783	-1		-1	-1	
Determined Eligible	SHPO - DJ	12/26/2002			-1	0	0	0	
Not considered eligible	RECORDER	8/2001							
Determined Eligible	SHPO - JM	12/4/2003			-1	0	0	0	
Not considered eligible	Recorder	08/2001							
Considered Eligible	Recorder	07/27/2004		10694					
Considered Eligible	recorder	11/09/2001							
Considered Eligible	recorder	08/22/2002							
Eligible Individually	SHPO	10/24/2005		2000	1	0	0	0	SHPO-2005-2184
Eligible Individually	SHPO	11/2/2004		2000	1	0	0	0	SHPO-2002-0600
Eligible Individually	SHPO	12/5/2008		2000	1	0	0	0	SHPO-2008-0619
Eligible Individually	SHPO	12/9/2008		2000	1	0	0	0	SHPO-2008-1485
Eligible Individually	SHPO	2/1/2007		2000	1	0	0	0	SHPO-2001-3035
Eligible Individually	SHPO	2/27/2006		2000	1	0	0	0	SHPO-2006-0302
Eligible Individually	SHPO	3/15/2007		2000	1	0	0	0	SHPO-2007-0466
	SHPO	4/3/2009		2000	1	0	0	0	

Eligible Individually									SHPO-2009-0195
Eligible Individually	SHPO	8/5/2009		2000	1	0	0	0	SHPO-2009-0618
Eligible Individually	SHPO	9/15/2008		2000	1	0	0	0	SHPO-2008-1486
Ineligible Individually	SHPO	6/20/2002		2000	1	0	0	0	SHPO-2002-1227
Not evaluated	SHPO	8/18/2008		2000	1	0	0	0	SHPO-2008-1303
Not evaluated	SHPO	9/5/2006		2000	1	0	0	0	SHPO-2006-0880
Considered Eligible	recorder	11/16/2006		15146					
Not evaluated	recorder	4/5/2013		21274					
Not evaluated	recorder	3/13/2013		21373					
Not evaluated	recorder	1/29/2010		19845					

TEMPORAL COMPONENTS:

Component	remarks	Time_Period	siteuse
late historic		AD1900-1950	
middle historic		AD1800-1900	
recent		AD1950-present	

CULTURAL AFFILIATIONS:

Affiliation	remarks
Euro-American	

HISTORIC DISTRICT:

SITE REFERENCES:

Agency_Ref_num	AZSITE_Ref_Num	Authors	citation
5286.ASM	1536	Indermill (1995)	Indermill, Roc H. 1995 The Peavine Trail Corridor: An Archaeological Survey and Cultural Resource Inventory of 5.7 Miles

			of the Santa Fe, Prescott and Phoenix Railway Line and Jerome Junction, Arizona. Flagstaff, Arizona: RHI.
12247.ASM	7714	Fangmeier (2001)	Fangmeier, Kristin L. 2001 Cultural Resources Survey for a Traffic Signal Interconnection Project, Peoria, Maricopa County, Arizona. Project No. 01-48. Archaeological Consulting Services, Ltd.
14214.ASM	8237	Gage (2002)	Gage, Gina S. 2002 Cultural Resources Survey of Pinnacle West's Solar Electric Generating Station, Prescott, Yavapai County, Arizona. Tempe, Arizona: Archaeological Consulting Services, Ltd.
41808.ASM	8528	Punzmann and Aguila (2003)	Punzmann, Walter R. , and Lourdes Aguila 2002 Cultural Resources Survey of US 93 Between Wickenburg and the Santa Maria River (Mileposts 161.0-194.0), Maricopa and Yavapai Counties, Arizona. Archaeological Consulting Services, Ltd. Project # 99-035F.
57044.ASM	17197	Wilcox and Luhnow (2009)	Wilcox, Scott; Luhnow, Glennda 2009 Archaeological Monitoring Report for the Transwestern Pipeline Company Pheonix Expansion Project Pheonix Lateral, in Yavapai, Coconino, Maricopa, and Pinal Counties, Arizona ACS Project No. 07-208
56547.ASM	16943	Rayle and DeRosa (2008)	Rayle, C E. and S. T. DeRosa 2008 A Cultural Resource Survey for Proposed Extra Workspaces and a Revised Pipeline Right-of-Way Near Mileposts 123.0 and 123.6 Along the Phoenix Lateral Segment of Transwestern Pipeline's Phoenix Expansion Project, Maricopa county, Arizona. Archaeological Consulting Services, Tempe.
47312.ASM	10694	Schmidt and Lindly (2004)	Schmidt, Cara and John M. Lindly. 2004 A Cultural resources Survey for the Proposed Expansion of the Prescott Municipal Airport, Ernest A. Love Field, Yavapai County, Arizona. SWCA Environmental Consultants. SWCA Cultural Resources Report No. 04-274. Phoenix, Arizona.
51382.ASM	12783	Newsome (2005)	Newsome, Daniel K. 2005 Cultural Resources Inventory of approximately 2.68 miles for a 69/12kV transmission line across Arizona State Trust Land northeast of Paulden, Yavapai County, Arizona. EnviroSystems Management Report No. 05-1130. Flagstaff, Arizona.
	15146	Newsome (2006)	Newsome, Daniel K. 2006 Cultural resources inventory of approximately 2,200 acres within the proposed Granite Dells Ranch Development northeast of Prescott, Yavapai County, Arizona. Report (EnviroSystems Management (Flagstaff, Ariz.)) ; no. 1159-05. EnviroSystems Management: Flagstaff, Arizona.
52119.ASM	13630	Brown and Purcell (2005)	Brown, Sharon K. and David E. Purcell 2005 A Cultural Resources inventory of an Existing Asphalt Hot Plant, Crushed Rock Stockpile, Haul Route, and Shopping Center, in Prescott, Yavapai County, Arizona. Four Corners Research Report Number 05-190. Flagstaff, Arizona.
68803.ASM	21426	Christenson (2013)	Christenson, Andrew L. 2013 A Cultural Resource Survey of the Sundog Trunk Main Sewer Improvement Project, Prescott, Yavapai County, Arizona. Biozone, Inc., Prescott, Arizona.
68390.ASM	21373	Touchin (2012)	Touchin, Jewel 2013 A Class III Cultural Resources Survey along US 60, Bell Road, Dysart Road, and Litchfield Road in the City of Surprise, Maricopa County, Arizona. Report no. 2013-004. Jacobs Engineering Group, Inc., Phoenix, Arizona.
67929.ASM	21274	Heliman (2013)	Heilman, Jill 2013 A Cultural Resource Survey Along 67th Avenue Between Glendale Avenue and Cholla Street in the City of Glendale, Maricopa County, Arizona. Report no. 13-444. EcoPlan Associates, Mesa, Arizona.
63150.ASM	19845	Heilman (2010)	Heilman, Jill 2010 Cultural Resource Survey for the 99th Avenue Fiber Optic Cable Line between Olive Avenue and Bell Road in

			Maricopa County, Arizona. EcoPlan Associates, Inc., Mesa, Arizona.
62962.ASM	19749	Turner (2010)	Turner, Korri Dee 2010 Continued archaeological monitoring with the area bounded by 7th Avenue, 19th Avenue, Interstate 17, and Harrison Street (Phase B) for the Replacement of a Water Main and Fire Hydrants, Phoenix, Maricopa County, Arizona. Project Report No. 2010-009. Jacobs Engineering Group, Inc., Phoenix, Arizona.

SITE HISTORY:

Activity	remarks	AZSITE_Proj_Num	Project_End_Date	Site_Condition	Collections_
Survey	RHI project "The Peavine Trail Corridor"	1458		The SFP&P line was salvaged of its rails, ties & hardware in 1992-93; its earthwork, frame trestle & box-culverts remain intact. Vandalism & graffiti hve been minimal.	0
survey	Yavapai County PW Office project "An Archaeological Survey for the Airport Connection Project (H5073-01C)"		9/17/1998	good. Railbed & berms largely intact. Features (culverts, trestles, etc.) mostly intact. Rail & ties have been removed	
survey	investigated only segments within the survey area; US 93: Wickenburg to the Santa Maria River Survey; Archaeological Consulting Services, Ltd.; ASM Access No. 2003-985		11/09/2001	Good. The railroad has been maintained and is currently in use.	
	ASM Accession number 2010-51.ASM No Boundary Update	24159	1/29/2010		
survey	2006-229.ASM. FANN/Prescott Survey. Four Corners Research	23719	09/20/2005		
Survey	Peoria Traffic Signals, 2001-789 .ASM, Archaeological Consulting Services, Ltd.		8/2001	Good. The railroad is being maintained and is presently in use.	
Survey	ACS, Ltd.		08/2001	The railroad is being maintained and is presently in use.	
survey	Peoria Traffic Signals, 2001-267.ASM, Archaeological Consulting Services, Ltd.	12609	8/2001	Good. The railroad is being maintained and is presently in use.	
Monitoring	ASM Accession 2008-8 - no site boundary change recorded	24900	12/8/2008		
survey	A.L.Christenson project "Granite Mountain Materials"	11029	2/27/2001	all but stubs of pile gone	
survey	surveyed only a portion of the site within the current project area (T15N R1W		07/27/2004	fair to good	

	S19); Project: Ernest A Lovefield Airport; SWCA, Inc (Phoenix, AZ); ASM Accession No. 2005-78				
survey	SR 71, MP 86.04-109.6; ARS Project No. 2001:090: Archaeological Research Services, Inc.; ASM Survey # 2001-752.ASM		07/17/2001	good to excellent condition; most segments have been well-maintained	
survey	Prescott Airport Solar Project; Archaeological Consulting Services, Ltd. (Tempe, Arizona); ASM Access No. 2003-359		08/22/2002	Good. The rails, ties, and other features have been removed, but the trackbed and remaining features are in remarkably good condition.	
survey	ASM Accession 2005-807, Envirosystems Management, Inc. Project Name: "APS Pulden 69/12 kV Transmission Line Inventory." Surveyed sections of AZ N:3:32(ASM) are located in T17N R02W S3, and T18N R02W S36.		08/30/2005	Good	
monitoring	monitored only the newly identified segment of the site within the current monitoring area (T1N R3E S7) - 11th Avenue between W. Grant and W. Sherman Streets; Project Name: ABB: 7th Ave./19th Ave./I-17/Harrison St. (continued Phase B) - Jacobs Engineering, Inc. (Phoenix, AZ)	23010	07/26/2010		
survey	ASM Accession number 2013-153 - site boundary not changed	25005	3/13/2013		
survey	T14N R2W	24772	7/7/2013		
survey	ASM Accession number 2007-61	24986	11/16/2006		
survey	ASM Accession number 2013-183 - site boundary not changed	25006	4/5/2013		

FEATURES:

Feature_Type	remarks	frequency
water control device	THERE WERE SIX TYPE 3 CREOSOTE BOX-CULVERTS WITHIN THE PROJECT AREA IN 1915. THREE OF THEM WERE REPLACED WITH TYPE 1 CONCRETE BOX-CULVERTS, ONE IN 1928 AND TWO OTHERS PERHAPS IN 1931. ONE CREOSOTE BOX-CULVERTS REMAINS. TWO OTHERS WERE NOT LOCATED.	1
other	BALLAST WAS ADDED TO THE TRACK AFTER IT WAS LAID. GRANITE DELLS MAY HAVE BEEN A SOURCE FOR THE CRUSHED GRANITE BALLAST.	1
road trail		1

	THE SFP&P RAILROAD GRADE WAS DESIGNED TO BE 18 FT. WIDE IN THE CUTS AND 14 FT. WIDE IN THE FILLS THROUGHOUT ITS LENGTH. ALL EARTHEN TRESTLES (EMBANKMENTS) ARE FILL.	
railroad track bed	Located during ASM Accession 2005-807 survey - Three pieces of the AT&SF Railroad Prescott and Phoenix Line--the branch that extends to Prescott, the branch that extends to Phoenix, and an abandoned segment.	3
water control device	THE TYPE 1 CONCRETE BOX-CULVERT IS A WITHIN-EMBANKMENT FEATURE HAVING WINGED HEAD-WALLS AND AN OVAL DRAINAGE PIPE. SEVEN OF THESE FEATURES DISPLAY A DATE PANEL ON ONE OF BOTH OF THEIR HEADERS. TWO OF THESE HEADERS WERE POURED IN 1922, ONE IN 1926, ONE I	11
communication system linear	THE SFP&P ERECTED A SINGLE TELEGRAPH LINE PARALLEL TO ITS RAIL LINE IN 1892-1893. THIS TELEGRAPH LINE CONNECTED ASF FORK TO PHOENIX IN 1894. A SECOND LINE WAS STRUNG NEXT TO THE FIRST ONE IN 1899. THIS POLE LINE WAS STANDING IN 1974, AND THE TELEGRAPH M	1
water control device	THE THREE TYPE 2 CONCRETE BOX-CULVERTS WERE BUILT TO REPLACE WOODEN FRAME TRESTLES SOMETIME AFTER 30 JUNE 1915. EACH OF THESE BOX-CULVERTS HAS FLAT HEAD-WALL AND A RECTANGULAR DRAINAGE CHANNEL.	3
other	THE EARTHEN PLATFORM FOR MOTOR CAR SET-OFF PROVIDED A SAFE PLACE WHERE AN INSPECTOR COULD SET HIS MOTOR CAR OFF THE TRACK. THESE EARTHEN PLATFORMS WERE SIDE SLOPE EXTENSIONS ADDED TO ONE OR BOTH ENDS OF THE LONGER EARTHEN TRESTLES. THE PLATFORM TOPS RAN	6
bridge	WOODEN FRAME TRESTLE BUILT IN ABOUT 7-10 DAYS IN LATE 1892. FOUR EVENLY SPACED PIERS OF PILINGS AND 2 ABUTMENTS SUPPORT THE DECK (10' W X 75' L). BOTH ABUTMENTS MADE OF 3" X 10" PLANKS. EACH CROSS-BRACED PIER SUPPORTS A 10" X 12" X 16" BEAM UPON WHICH R	1
railroad track bed	THE SFP&P ROADBED IS COMPOSED OF EARTH, GRAVEL, AND CRUSHED ROCK. THE SINGLE STANDARD-GUAGE TRACK WAS SALVAGED IN 1992-1993.	1
water control device	RIPRAP, MADE OF BASALT COBBLES (CINDERS) AND BROKEN STONES, WAS USED FOR EROSION-CONTROL IN AT LEAST ONE DRAINAGE AND ONE CUT. OTHER WATER-CONTROL DEVICES INCLUDING DIKES, DITCHES AND RAILROAD TIE CRIBS ARE SHOWN ON ONE 1915 VALUATION MAP. THESE FEATUR	2+
other	A CROSSING PLANK WAS PLACED BETWEEN THE RAILS AT GRADE-CROSSING TO FACILITATE VEHICLES AND LIVESTOCK BEING DRIVEN ACROSS THE TRACK. ALL CROSSING-PLANKS WERE CONSTRUCTED OF WOODEN PLANKS IN BASICALLY THE SAME DESIGN. THE CROSSING-PLANK TYPICALLY MEASURES	8
communication system linear	Recorded as part of ACS survey (2001-871.ASM). Wooden poles spaced 180-200 ft. apart, roughly 15 ft. tall, double crossbeams with glass insulators.	1

DIAGNOSTICS:

Diagnostics	remarks	frequency
GLASS BOTTLE SHERDS		100+
RAILROAD TIES		30+
HIST. CERAMIC SHERDS		10+
SANITARY CANS		10+
TOBACCO POCKET TINS		2+
HOLE-IN-TOP CANS		2+
GLASS INSULATOR SHERDS		65+

ANALYZED FAUNAL REMAINS:

IngCount	ID_Certainty	Class	Order	Family	Genus	Species	Name	Component	Notes

Site Remarks THE SFP&P LINE IS A 5.7 MILE LONG SEGMENT OF THE SANTA FE, PRESCOTT AND PHOENIX RAILWAY (SFP&P), WHICH WAS NICKNAMED THE PEAVINE. THIS STANDARD- GUAGE SINGLE-TRACK SEGMENT WAS BUILT IN 1892-1893. IT WAS ABANDONED IN 1983. THE SITE BOUNDARY IS CONTERMINOUS WITH THE BOUNDARY OF THE FORMER SFP&P RIGHT-OF-WAY WITHIN THE PEAVINE TRAIL CORRIDOR PROJECT AREA. THE WIDTH OF THIS RIGHT-OF-WAY VARIES FROM 150-200 FT., AND THIS SITE COVERS ALL 120 ACRES OF THE PROJECT AREA. FEATURES ON THE SFP&P LINE INCLUDE THE GRADE, ROADBED AND BALLAST, A WOODEN FRAME TRESTLE, TWO TYPES OF CONCRETE BOX-CULVERTS, ONE CREOSOTE BOX-CULVERT, EARTHEN PLATFORMS FOR MOTOR CAR SET-OFFS, AND WOODEN CROSSING-PLANKS. THERE ARE TWO ARCHAEOLOGICAL SITES WITHIN THE PROJECT AREA. THE SECOND SITE IS JEROME JUNCTION (A.K.A. JUNCTION, COPPER; AZ N:3:33), WHICH CONSISTS OF THE RUINS OF A RAILROAD STATION AND A TOWNSITE. THIS STATION WAS SHARED BY THE SFP&P AND THE UNITED VERDE AND PACIFIC RAILWAY BUILT IN 1894 TO CONNECT THE COPPER MINE AT JEROME WITH THE SFP&P LINE AT JEROME JUNCTION. MOST OF THE RAILROAD YARD WAS LOCATED WITHIN THE PROJECT AREA, BUT SOME FOTHE YARD AND ALL OF THE TOWNSITE OCCUPIED ADJACENT LAND WHICH IS NOW PRIVATELY OWNED. JEROME JUNCTION IS ESTIMATED TO HAVE COVERED 94 ACRES (38 HA)IN 1914. THE MAIN TRACK OF THE SFP&P LINE EXTENDED THROUGH THIS YARD, SO HERE THESE SITES OVERLAP ON 10.1 ACRES (4 HA) WITHIN JEROME JUNCTION. THE UTMS ARE ALL LOCATED IN IRREGULAR SECTIONS.

 UPDATE - RJK.ASM - 1/17/2002 - Yavapai Co. PW Office 1998 "An Archaeological Survey for the Airport Connector Right-of-Way North of Prescott, Arizona." Motsinger & Ziem. The railway was incorporated by Frank M. Murphy & his investors in 1891, & was completed in 1893. The line was the second route to connect Prescott w/the Atlantic & Pacific, eventually replacing the Prescott & Arizona Central, which was constructed in 1886. The arailway changed owners several times, & was eventually subsumed by the Atcheson, Topeka, & Santa Fe Railway Co.

 ALChristenson 2001 "Archaeological Survey for a Road Easement Across Arizona State Trust Land North of Skull Valley, Yavapai Co., AZ" Christenson. Trestle remnants on the Santa Fe, Prescott & Phoenix Railway. Identified on ROW & track maps as ballast deck pile trestle E-77 completed on 2-9-21. It was 159.2' long. All that remains are stubs to the piles, indicating that it had 8 bents w/6 iles per bent. Remnants of sway braces remain. This section of the SFP&P was built in 1895 & abandoned in 1962.

 UPDATE - 07/30/2002 - JC.ASM - "A Cultural Resources Survey of State Route 71 Between Aguila and Congress (Milepost 86.04 to Milepost 109.60), Maricopa and Yavapai Counties, Arizona" - Wright (2001) - This historic railroad traverses a rugged north-south route across west central Arizona, from Ash fork to Phoenix via Prescott, Congress and Wickenburg. It crosses the north end of SR 71 project area at milepost 109.54, a few hundred feet west of the SR 71/SR89 intersection. This site was previously recorded. Only the portion of the site within the project area is descibed here. It consists of a single set of standard gauge railroad tracks and wooden ties on a rock ballast railbed. The highway crossing has concrete pads on each side of and in between the tracks. Modern electrical crossing barriers and warning lights are present for both lanes of traffic. The railroad is an in-use feature that is maintained in excellent condition. Most of the tracks in the vicinity of the SR 71 crossing were stamped with a date of 1999, a few 1966 tracks were also seen. The railroad as a whole has been previously recommended as NRHP-eligible, and ARS agrees with this assessment.

 UPDATE - 06/2/2003 - NHT.ASM - "Cultural Resources Survey for a Traffic Control Interconnection Project in Peoria, Maricopa County, Arizona" - Fangmeier (2001) - This site is a railroad paralleling Grand Avenue. The tracks, located 40 ft northeast of the Grand Avenue alignment, remain in use. The entire roadbed is 50 ft wide, of which 22 ft is the ballast along the tracks. Along the northeast side of the tracks is Feature 1, a communication line. The wooden poles, spaced 180 - 200 ft apart, were roughly 15 ft tall and had double crossbeams with glass insulators. Two ceramic insulator fragmets as well as two historic whiteware fragments were noted at the base of one of the poles.

 UPDATE - 05/16/2005 - MLG.ASM - "Cultural Resources Survey For Traffic Signal Interconnection Project, Peoria, Maricopa County, Arizona"-Fangmeier (2001) - This site is a railroad paralleling Grand Avenue. The track originally operated under the Santa Fe, Prescott & Phoenix Railway Company (SFP&P), which started serving Phoenix in 1895. The line connected Presscott with Ash Fork and the main Atchison, Topeka and Santa Fe line on the north and Phoenix on the south. The line was then consolidated in the California, Arizona & Santa Fe Railway company in 1911, later to be merged in the Atchison, Topeka & Santa Fe Company in 1963. Passenger service on the line was discontinued in 1969, and the line was subsumed by the Burlington Northern Santa Fe Railroad in the mid 1990s. Two segments of the SFP&P have been recorded near Prescott. Plataue Mountain Desert Research documented a segment of the railroad just over 1,000 ft long where the rails and ties had been removed and the roadbed was being used as a two-track road. This segment was originally recorded as AZ N:7:161(ASM), but was later subsumed under the overall site number (Sharon Urban, personal communication, 2001). A, 4,300-ft segment was also recorded just east of the Prescott airport within a parcel for the proposed Yavapai County Fairgrounds. In addition to various structural features, a telephone/telegraph line was also noted, although the poles had been sawn off and only stumps remained. The rails had also been removed from this segment. Within the current project area, the tracks, located 40 ft northeast of the Grand Avenue alignment, remain in use. The entire roadbed is 50 ft wide, of which 22ft is the ballast along the tracks. Along the northeast side of the tracks is Feature 1, a communictation line. The wooden poles, spaced 180-200 ft apart, were roughly 15 ft tall and had double crossbeams with glass insulators. Two ceramic insulator fragments as well as two historic whitewire fragments were noted as the base of one of the poles. The railroad and its associated communication line are considered eligible under Criterion A for their association with the early transportation history and settlement and economic development of central Arizona since the late 1800s. According to the Christenson's (1998) ASM site card, a 10-mi section of the railroad in Limestone Canyon north of Chino Valley is listed on the National Register. The segment of railroad witin the project area is still in use and to some degree retains integrity of location, setting, and association. However, the alignment's original feeling, design, materials, and workmanship have been modified to an extent that is no longer conveys its historic character. Other segments of the alignment near the current project area have been recommened as not eligible (Thomas 2000); SHPO has concurred with this recommendation. Therefore, the segment within the current project area is recommended as noncontributing to the railroad's overall elibibility. Topographic setting: Valley floor. Vegetation: Sonoran desertscrub. Geology/Soils: Silty sand with moderate amounts of gravels.

 UPDATE – JC.ASM - 05/17/2005 – Boundary Not Updated – "Cultural Resources Survey of Pinnacle West's Solar Electric Generating Station, Prescott, Yavapai County, Arizona" – Gage (2002) - Archaeological Consulting Services, Ltd., Tempe, Arizona – surveyed only segments of the site that is within the survey area - This site consisted of a historic railroad segment that bordered the project area on the west. The original alignment, constructed between 1891 and 1895, was operated by the Santa Fe, Prescott & Phoenix Railway Company (SFP&P). The railroad was also known as the Pea Vine or Peavine due to its many twisting curves and steep challenging grades. The line connected Prescott with Ash

Fork and the main Atchison, Topeka & Santa Fe line to the north, and with Phoenix to the south. A portion of the original alignment through Limestone Canyon was abandoned in favor of an easier route through Hell Canyon in 1901. The railroad was consolidated with the California, Arizona & Santa Fe Railway Company in 1911, later to be merged in the Atchison, Topeka & Santa Fe Railway Company in 1963. Passenger service was discontinued in 1969, and the Burlington Northern Santa Fe Railroad took over the line in the mid-1990s. A 10-mi section of the SFP&P in the Limestone Canyon District between Chino Valley and Ashfork is listed on the National Register. Although the rails, ties, and some trestles and other features have been removed, the segment crosses a relatively inaccessible part of the Prescott National Forest and therefore retains integrity of design, workmanship, location, feeling, association, and setting. Two segments of the railroad have been recorded near Prescott. Plateau Mountain Desert Research documented a 1,000+ ft segment where the rails and ties had been removed and the roadbed was being used as a two-track road; this segment was originally recorded as AZ N:7:161(ASM), but was later subsumed under the current site number. A 4,300-ft segment without rails was recorded just south of the current project area; various structural features were recorded, including the trackbed (Feature 1), right-of-way fences (Feature 2), two trestle bridges (Feature 3), three tie platforms (Feature 4), an earthen platform (Feature 5), and a telegraph line (Feature 6). Additional segments were documented by ACS along Grand Avenue in Peoria, near the US 60–SR 93 intersection in Wickenburg, and along US 93 near Wickenburg. All these segments were recommended as noncontributing due to lack of integrity. The segment within the project area was part of the original alignment. The rails and ties had been removed, but the roadbed was in remarkably good condition. Four previously undocumented features were identified, as well as a continuation of the telegraph line. No diagnostic artifacts or markers were directly associated with the features so their ages are unknown. Feature 7 consisted of a wooden trestle bridge that measured 112 ft long x 31 ft wide. The bridge span had been covered with gravel, and the wooden support posts had been replaced with metal ones. The bridge burned sometime after the gravel was placed on it, but the structure is still standing. The bridge has now been blocked off and is no longer accessible to foot or vehicular traffic. Feature 8 consisted of a smaller wooden trestle bridge still in use. The bridge measured 58 ft long x 12 ft wide. No diagnostic marks were identified on the structure, and its age is not known. However, according to the SHPO publication on transcontinental railroading in Arizona, log or lumber trestles were among the earliest bridges erected and were usually soon replaced with stone or steel structures. Feature 9 consisted of a poured concrete culvert measuring approximately 30 ft long and 10 ft deep. The culvert walls were 18½" thick, and the wing walls were 11¾" thick. The wing walls had been reinforced with slurry and volcanic boulders, and the culvert is still functioning. Feature 10 consisted of a dirt road paralleling the east side of the railroad bed. The road measured 8 ft wide and extended from the southwest corner of the survey parcel south about 0.7 mi, where it disappears. The road has been disturbed by erosion and modern construction; portions of it are still in use today. In addition to the previously recorded features, a series of cut 6" x 6" square utility pole bases was recorded immediately west of and paralleling the railroad bed. The poles, which were spaced from 23 ft to 531 ft apart, had been sawed off to an average height of 9". Several pole and insulator fragments were located along the line, but most of the poles had been removed. Diagnostic insulator fragments found within the project area dated from the 1890s.

 UPDATE – JC.ASM – 05/19/2002 – Boundary Not Updated -- "Cultural Resources Survey of US 93 between Mileposts 161.0 and 194.0 Between Wickenburg and the Santa Maria River, Maricopa and Yavapai Counties, Arizona" - Punzmann and Aguila (2003) - Archaeological Consulting Services, Ltd. (Tempe, Arizona) - This site consisted of a historic railroad segment that extended on both sides of US 93. Currently known as the Atcheson, Topeka, and Santa Fe Railroad, the track originally operated under the Santa Fe, Prescott, & Phoenix Railway Company (SFP&P), which was founded on May 27, 1891. The SFP&P was also known as the Pea Vine or Peavine due to its many twisting curves and steep challenging grades. The line, which reached Wickenburg in 1894, served to connect the area's mines with Wickenburg, Prescott, Ash Fork, and the main Atchison, Topeka & Santa Fe line on the north, and with Phoenix on the south. By 1914, Wickenburg was a junction for SFP&P's North-South and California-Arizona Lines. Before the coming of the railroad, business activity in Wickenburg had centered on the early stage route along the Hassayampa River. Following SFP&P's completion of the line to Wickenburg in 1894, Railroad Avenue became the principal business street; a depot and a section house were constructed in 1895. Rail service also revived the area's mining industry, benefited local agriculture, and fueled a housing boom, represented by the Neo-Colonial architectural styles in the Wickenburg Multiple Resource Area. Thus, the railroad is considered significant to the development of Wickenburg in the area of transportation (Criterion A). According to the ASM site card, a 10-mi section of the SFP&P in Limestone Canyon north of Chino Valley is listed on the National Register. Two segments of the railroad have been recorded near Prescott. Plateau Mountain Desert Research documented a segment just over 1,000 ft long where the rails and ties had been removed and the roadbed was being used as a two-track road; this segment was originally recorded as AZ N:7:161(ASM), but was later subsumed under the current site number (Sharon Urban, personal communication, 2001). A 4,300-ft segment, the rails of which had been removed, was recorded just east of the Prescott airport within the Yavapai County Fairgrounds; various structural features and the remains of an associated telephone/telegraph line also were present. Additional segments were documented by ACS along Grand Avenue in Peoria, and near the US 60–SR 93 intersection in Wickenburg. All these segments were recommended as noncontributing due to lack of integrity. Within the current project area, the track has been regularly maintained and remains in use. It has 3¼-in-wide rails set 4 ft 9 in apart. The 7½-in-wide, 8-ft-long wooden ties span a 12-ft-wide gravel-and-cinders rail bed that is 20 ft wide at the base. The associated US 93 overpass was constructed in 1964 (F-FG-035-1(4)) 1964). No artifacts were found in association.

 UPDATE - 05/16/2005 - MLG.ASM - "Cultural Resources Survey For Traffic Signal Interconnection Project, Peoria, Maricopa County, Arizona"-Fangmeier (2001). Segment recorded near Stone Street & Betty Drive in Phoenix, AZ - See report for information - The site is a railroad paralleling Grand Avenue. The track originally operated under the Santa Fe, Prescott & Phoenix Railway Company (SFP&P), which started serving Phoenix in 1895. The line connected Prescott with Ash Fork and the main Atchinson, Topeka & Santa Fe line on the north and Phoenix on the south. The line was t hen consolidated in the California, Arizona & Santa Fe Railway Company in 1911, later to be merged in the Atchinson, Topeka & Santa Fe Company in 1963. Passenger service on the line was discontinued in 1969, and the line was subsumed by the Burlington Northern Santa Fe Railroad in the mid 1990s. Two segments of the SFP&P have been recorded near Prescott. Plateau Mountain Desert Research documented a segment of the railroad just over 1,000 ft long where the rails and ties had been removed and the roadbed used as a two-track road. This segment was originally recorded as AZ N:7:161(ASM), but was later subsumed u nder the overall site number (Sharon Urban, personal communication, 2001). A 4,300-ft segment was also recorded just east of the Prescott airport within a parcel for the proposed Yavapai County Fairgrounds. In addition to various structural features, a telephone/telegraph line was also noted, although the poles had been sawn off and only stumps remained. The rails had also been removed from this segment. Within the current project area, the tracks, located 40ft northeast of the Grand Avenue alignment, remain in use. The entire roadbed is 50ft wide, of which 22ft is the ballast along the tracks. Along the northeast side of the tracks is Feature 1, a communication line. The wooden poles, spaced 180-200 ft apart, were roughly 15ft tall and had double crossbeams with glass insulators. Two ceramic insulator fragments as well as two historic whiteware fragments were noted at the base of the one of the poles. The railroad and its associated communication line are considered eligible under Criterion A for their association with the early transportation history and settlement and

economic development of central Arizona since the late 1880s. According to Christenson's (1998) ASM site card, a 10-mi section of the railroad in Limestone Canyon north of Chino Valley is listed on the National Register. The segment of railroad within the project area is still in use and to some degree retains integrity of location, setting, and association. However, the alignment's original feeling, desing, materials, and workmanship have been modified to an extent that is no longer coveys its historic character. Other segments of the alignment near the current project area have been recommended as not eligible (Thomas 2000); SHPO has concurred with this recommendation. Therefore, the segment within the current project area is recommended as noncontributing to the railroad's overall eligbility. Topo Setting: Valley Floor. Vegetation: Sonoaran destertscrub. Geology/Soils: Silty sand with moderate amounts of gravel.

 UPDATE - SV.ASM - 07/27/2005 - Gage, Gina 2001 A Cultural Resources Survey of U.S. Highway 60 between Mileposts 109.0 and 110.33, Wickenburg, Maricopa County, Arizona. Archaeological Consulting Services, Ltd., Tempe, Arizona - ACS recorded segment of the site that crossed the project area near the US 60 - SR 93 intersection. See report for details.

 UPDATE – JC.ASM - 09/10/2008 – Boundary Not Updated – Reference: Schmidt, Cara, and John M. Lindly 2004 A Cultural Resources Survey for the Proposed Expansion of the Prescott Municipal Airport, Ernest A. Love Field, Yavapai County, Arizona. SWCA Cultural Resources Report No. 04-274, Phoenix, Arizona – Survey Project, 07/24/2004 – ASM Accession No. 2005-78 - The SFP&P traversed west central Arizona, from Ash fork to Phoenix, via Prescott, Congress, and Wickenburg. This standard-gauge single-track segment (nicknamed the Peavine) was completed in 1895. The connection to Prescott was abandoned in 1983 and its rails, ties, and hardware were later salvaged. Remains of AZ N:3:32(ASM) recorded within the project area include the railroad grade and bed, two intact trestles (Features 1 and 2), and a spur which once extended into the airport.

 The rails and ties have been salvaged and sometimes appear to have been used to construct an adjacent fence line. Additionally, most of the railroad grade within the project area is used as a dirt road. The spur, which extends southeast into the project area, is deflated and overgrown with vegetation. The two features (trestles) recorded along the railroad are in good condition.

 UPDATE - 9/24/2012 - CDJ.ASM - Boundary Updated - Reference: Newsome, Daniel K. 2005 Cultural Resources Inventory of Approximately 2.68 Miles for a 69/12 kV Transmission Line Across Arizona State Trust Land Northeast of Paulden, Yavapai County, Arizona.
 ASM Accession 2005-807 - Site AZ N:3:32(ASM) is the AT&SF Railroad Prescott and Phoenix Line, which according to information obtained from the AZSITE database was nicknamed the Peavine. The rail line was built in 1892-1893 by the Santa Fe, Prescott & Phoenix Railway Company (SFP&P) to connect Prescott and Phoenix with the main AT&SF line near Ash Fork. In 1911, the line was consolidated under the California, Arizona & Santa Fe Railway Company, later to be merged with the AT&SF in 1963. Passenger service on the line was discontinued in 1969, and in the mid 1990s the line was subsumed by the BN&SF Railroad.
 The current project corridors parallel and/or bisect three segments of Site AZ N:3:32(ASM)—the branch that extends to Prescott, the branch that extends to Phoenix, and an abandoned segment. The following descriptions refer only to those portions of line within the immediate vicinity of the current project corridors.
 Both the Prescott and Phoenix branches are fully intact, with all rails and ties still in situ. These two grades are composed of cobbles and black cinder ballast that varies from 10 to 20 feet high above the natural landscape. The grades range from 10 to 20 feet wide at the top and about 30 feet wide at the base.
 The abandoned segment consists of an earthen berm with no remaining ties or rails. The berm is approximately 5 feet high, 12 feet wide at the top, and 30 feet wide at the base. The berm in the vicinity of the current project is heavily overgrown with various shrubs and grasses.
 Various segments of Site AZ N:3:32(ASM)/AT&SF Railroad Prescott and Phoenix Line have been previously recorded and determined eligible for the National Register of Historic Places (NRHP). The segments in the vicinity of the current project area also contribute to the site's overall National Register eligibility under Criteria A, C, and D because they retain sufficient integrity of location, setting, feeling, association, workmanship, materials, and design.

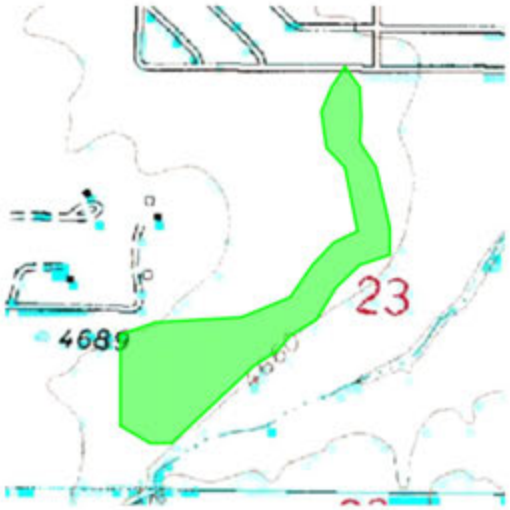
 UPDATE - JC.ASM – 12/18/2012 – Boundary Updated - ASM Accession 2007-609 - Monitoring Project, 07/26/2010 - References Cited: Turner, Korri Dee 2010 Continued archaeological monitoring with the area bounded by 7th Avenue, 19th Avenue, Interstate 17, and Harrison Street (Phase B) for the Replacement of a Water Main and Fire Hydrants, Phoenix, Maricopa County, Arizona. Project Report No. 2010-009. Jacobs Engineering Group, Inc., Phoenix, Arizona - Monitoring activities has been conducted within portions of this site as part of the replacement of a water main and selected fire hydrants project by Jacobs Engineering. Phase B monitoring was located along 11th Avenue between W. Grant and W. Sherman Streets. Excavation of trenches was conducted mechanically with backhoes and by hand with shovels. No new prehistoric or historic features were found within the excavated trenches. However, an unrecorded segment of this site was identified along the central portion of 11th Avenue within the monitoring area and overall project area. The unrecorded segment of this site was initially constructed in the 1890s.

 UPDATE-KT.ASM-8/26/2013-Boundary Not Updated-Reference Cited: Brown, Sharon K. and David E. Purcell 2005 A Cultural Resources inventory of an Existing Asphalt Hot Plant, Crushed Rock Stockpile, Haul Route, and Shopping Center, in Prescott, Yavapai County, Arizona. Four Corners Research Report Number 05-190. Flagstaff, Arizona. The haul route will also cross under a segment of the original alignment of the Santa Fe, Prescott & Phoenix Railway. KT.ASM As of the date listed in "Date of Last Boundary Update" above, this site boundary has been verified based on the best information available at ASM. < br>
****ASM – 12/21/2014 – UPDATE - See ASM Accession 2013-299 - the updated site boundary (if any), Reference, NR and Project information for this site have been entered. Other Attribute data will be added later. Site cards are scanned and available online****< br>
 RJK – 5/5/2015 – ASM Accession number 2008-8 – Monitoring project, only links to the project and reference information are provided. No site information was provided in the report. No boundary updates were provided.< br>
****ASM – 7/29/2015 – UPDATE - see ASM Accession Number 2007-61 the updated site boundary if any, Reference, NR and Project information for this site have been entered. Other Attribute data will be added later.****< br>
****ASM – 8/18/2015 – UPDATE - see ASM Accession Number 2013-153 the updated site boundary if any, Reference, NR and Project information for this site have been entered. Other Attribute data will be added later.**** < br>
****ASM – 8/18/2015 – UPDATE - see ASM Accession Number 2013-183 the updated site boundary if any, Reference, NR and Project information for this site have been entered. Other Attribute data will be added later.**** < br>
****ASM – 10/20/2015 – UPDATE - see ASM Accession Number 2010-51 the updated site boundary if any, Reference, NR and Project information for this site have been entered. Other Attribute data will be added later.****

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SITE NUMBER: AZ N:3:71(ASM)

SITE INFORMATION



Site Number: AZ N:3:71(ASM)

Site Name:

Alternate Name:

Agency Assigning Number: asm

AZSITE Number: 104827

How Was Location Determined:

Accuracy of Location:

Site Location is Plottable: Yes

Initial Recorder:

Institution:

Initial Recording Date:

Data Entry Person:

Date Entered: 6/19/2015 12:00:00 AM

Date this Record Uploaded into AZSITE: 8/4/2015 12:00:00 AM

Date Site Boundary was Last Updated:

Site has been Excavated/Tested: Not Recorded

Site has been Destroyed: Not Recorded

Owner:

Owner Address:

Property Address:

Resource Street Address:

City-County-Zip Code:

Setting

Open Air: No

Rockshelter: No

Cave: No

Deposition: Not Recorded

Dimensions in Meters: X

Recorded Artifact Types

Prehistoric Ceramics: Not Recorded

Chipped Stone: Not Recorded

Shell: Not Recorded

Human Remains: Not Recorded

Glass: Not Recorded

Ground Stone: Not Recorded

Faunal Remains: Not Recorded

Historic Ceramics: Not Recorded

Historic Wood: Not Recorded

Fire Cracked Rock: Not Recorded

Plant Remains: Not Recorded

Metal: Not Recorded

OTHER SITE NUMBERS:

Alternate Site Number	Agency	Remarks
AZ N:3:71(ASM)	asm	

TOWNSHIP, RANGE, SECTION

O Baseline = Gila/Salt Basline

baseline	township	Township_Direction	range	Range_Direction	section	Section_Quarter
G&S	16	N	2	W	23	unplatted

CENTER POINT UTMS:

NAD83UTMZ12

east	north	USGS Quad Name
368456	3853195	CHINO VALLEY NORTH

NATIONAL REGISTER STATUS:

Recommendation	Whose_Opinion	Date_of_Opinion	Authoritative Agency	Reference	Event	Person	Artistic	Research	SHPONumber
Considered Eligible	RECORDER	10/09/2003		21833					

TEMPORAL COMPONENTS:

Component	remarks	Time_Period	siteuse

CULTURAL AFFILIATIONS:

Affiliation	remarks

HISTORIC DISTRICT:

SITE REFERENCES:

Agency_Ref_num	AZSITE_Ref_Num	Authors	citation
71387.ASM	21833	Heuett (2004)	Heuett, Mary Lou 2004 A cultural resources inventory (class I and class III surveys) of a 163 acres, 65.2 hectare parcel in the Chino Hills subdivision in the Town of Chino Valley in Yavapai County, Arizona. Cultural & Environmental Systems, Tucson, Arizona.

SITE HISTORY:

Activity	remarks	AZSITE_Proj_Num	Project_End_Date	Site_Condition	Collections_
survey		24992	10/09/2003		

FEATURES:

Feature_Type	remarks	frequency

DIAGNOSTICS:

Diagnostics	remarks	frequency

ANALYZED FAUNAL REMAINS:

IngCount	ID_Certainty	Class	Order	Family	Genus	Species	Name	Component	Notes

Site Remarks Site AZ N:7:71(ASM) consists of a Middle (A D. 1800-1900) to Late (A D. 1900-1950) Historic Period discard scatter and four features. The four features consist of two scatters of building materials. On is associated with historic artifacts and 2 segments of an irrigation canal and a cattle tank with an associated canal and a single longer canal segment The artifacts and features suggest the area was used for ranching/farming and as a secondary discard site for domestic/farm materials. Preliminary research indicates the pastureland was part of the historic Hassayampa Alfalfa Farms (Prescott Farms), formerly the Arizona Land and Irrigation Company.< br>
****ASM – 06/19/2015 – ASM Accession 2014-448 - No electronic form of this site was submitted by the recording agency. The site card was generated by ASM personnel and by copying information from the submitted report****

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SHPO State Historic Preservation Office

SHPO SITE REPORT

SHPO Site Number

AZ N:3:33(ASM)

SHPO Property Id

61326

Arizona/National Register Eligibility Criteria

A History	B Person	C Architecture	D Information Potential
1	0	0	0

Site Eligibility Determinations and Recommendations

SHPO Project Number	Register Status	Authority	Date Determinination
2005-1321 (Click for Project Information)	Eligible Individually	SHPO	14_JUL_2005

SHPO Site Aliases

Site Alias
Jerome Junction townsite

Reference Documents

- SHPO Black Book
- SHPO Old Library Document

SHPO Site Report
https://azsite3.asurite.ad.asu.edu/azsite_staging/Map/ShpoSiteReport.aspx?azsitenum=9158&shpopropid=61326
2/25/2016 12:40 PM - Screen Clipping

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SHPO State Historic Preservation Office

SHPO SITE REPORT

SHPO Site Number

AZ N:3:31(ASM)

SHPO Property Id

57599

Arizona/National Register Eligibility Criteria

A History	B Person	C Architecture	D Information Potential

Site Eligibility Determinations and Recommendations

SHPO Project Number	Register Status	Authority	Date Determinination
2000-3382 (Click for Project Information)	Not Evaluated	SHPO	26_JUN_2002

SHPO Site Aliases

No data was returned.

SHPO Site Report
https://azsite3.asurite.ad.asu.edu/azsite_staging/Map/ShpoSiteReport.aspx?azsitenum=9151&shpopropid=57599
2/25/2016 12:40 PM - Screen Clipping

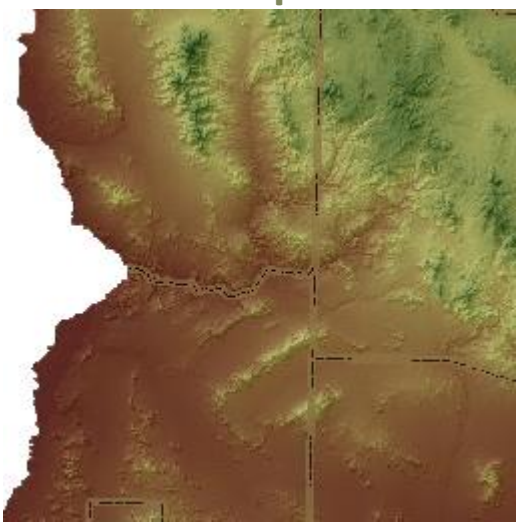
SHPO Site Report

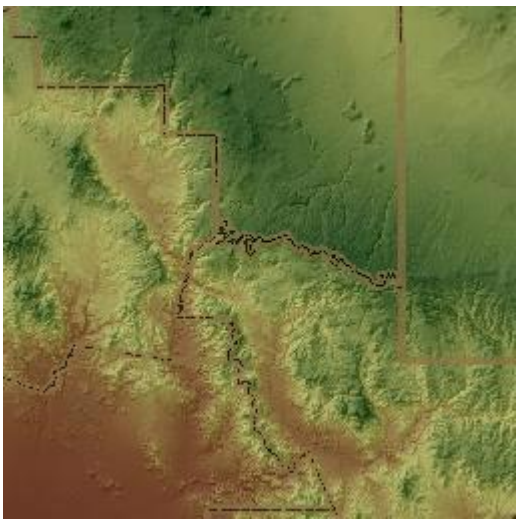
Thursday, February 25, 2016 12:41 PM

AZSITE
ARIZONA'S CULTURAL RESOURCE INVENTORY

SHPO
State Historic Preservation Office

SHPO Site Report





SHPO Site Number

AZ N:3:32(ASM)

SHPO Property Id

55477

Arizona/National Register Eligibility Criteria

A History	B Person	C Architecture	D Information Potential
1	0	0	0

Site Eligibility Determinations and Recommendations

SHPO Project Number	Register Status	Authority	Date Determination
2014-0413 (Click for Project Information)	Eligible Contributor	Agency	18_APR_2014
2010-0826 (Click for Project Information)	Eligible Contributor	SHPO	24_NOV_2010
2008-1090 (Click for Project Information)	Eligible Individually	SHPO	09_JUL_2008
2008-0619 (Click for Project Information)	Eligible Individually	SHPO	12_MAY_2008
2008-1303 (Click for Project Information)	Not Evaluated	SHPO	18_AUG_2008
2008-1263 (Click for Project Information)	Eligible Individually	SHPO	14_AUG_2008
2009-0475 (Click for Project Information)	Eligible Individually	SHPO	20_APR_2009
2008-1775 (Click for Project Information)	Eligible Individually	SHPO	12_NOV_2008
2009-0195 (Click for Project Information)	Eligible Individually	SHPO	04_MAR_2009
2008-1486 (Click for Project Information)	Eligible Individually	SHPO	15_SEP_2008
2008-1485 (Click for Project Information)	Eligible Individually	SHPO	12_SEP_2008
2009-0618 (Click for Project Information)	Eligible Individually	SHPO	08_MAY_2009
2008-0888 (Click for Project Information)	Eligible Individually	SHPO	09_JUN_2008
2006-0880 (Click for Project Information)	Not Evaluated	SHPO	09_MAY_2006
2002-2784 (Click for Project Information)	Eligible Individually	SHPO	26_DEC_2002
2002-1227 (Click for Project Information)	Ineligible Individually	SHPO	20_JUN_2002
2005-2724 (Click for Project Information)	Eligible Individually	SHPO	27_DEC_2005
2001-3035 (Click for Project Information)	Eligible Individually	SHPO	02_JAN_2007
2001-3048 (Click for Project Information)	Ineligible Individually	SHPO	03_DEC_2001
2005-2116 (Click for Project Information)	Eligible Individually	SHPO	03_NOV_2005
2005-2184 (Click for Project Information)	Eligible Individually	SHPO	24_OCT_2005
2006-2439 (Click for Project Information)	Eligible Individually	SHPO	15_NOV_2006
2004-0858 (Click for Project Information)	Eligible Individually	SHPO	21_DEC_2004
2006-1401 (Click for Project Information)	Eligible Individually	SHPO	16_JUL_2007
2006-0302 (Click for Project Information)	Eligible Individually	SHPO	27_FEB_2006
2006-0296 (Click for Project Information)	Eligible Individually	SHPO	22_FEB_2006
2003-1595 (Click for Project Information)	Eligible Individually	SHPO	03_DEC_2004
2006-2221 (Click for Project Information)	Eligible Individually	SHPO	16_OCT_2006
2003-2348 (Click for Project Information)	Eligible Individually	SHPO	25_NOV_2003
2002-600 (Click for Project Information)	Eligible Individually	SHPO	11_FEB_2004

2007-0466 (Click for Project Information)	Eligible Individually	SHPO	15_MAR_2007
2002-1508 (Click for Project Information)	Eligible Individually	SHPO	04_DEC_2003

SHPO Site Aliases

Site Alias
YAV 85
Santa Fe, Prescot, and Phoenix Railway Line historic alignment

Reference Documents

- SHPO Black Book
- SHPO Old Library Document

- Disclaimer

Website maintained by the ISSR

Inserted from <https://azsite3.asurite.ad.asu.edu/azsite_staging/Map/ShpoSiteReport.aspx?azsitenum=9159&shpopropid=55477>

APPENDIX C

Air Quality Modeling

Table C-1. Construction Equipment Use				
Equipment Type	**Number of Units**	**Days on Site**	**Hours Per Day**	**Operating Hours**
Excavators	2	260	4	2,080
Plate Compactors	2	260	4	2,080
Trenchers	2	260	8	4,160
Cement Mixers	2	260	4	2,080
Generator Sets	1	260	4	1,040
Loaders/Backhoes	2	260	7	3,640
Pavers	1	58	8	464
Paving Equipment	1	58	8	464

Table C-2. Construction Equipment Emission Factors (lbs/hour)							
Equipment	**CO**	**NOx**	**VOC**	**SOx**	**PM10**	**PM2.5**	**CO2**
Excavators	0.5828	1.3249	0.1695	0.0013	0.0727	0.0727	119.6
Plate Compactors	0.0263	0.0328	0.0052	0.0001	0.0021	0.0021	4.3
Trenchers	0.508	0.8237	0.1851	0.0007	0.0688	0.0688	58.7
Cement Mixers	0.0447	0.0658	0.0113	0.0001	0.0044	0.0044	7.2
Generator Sets	0.3461	0.698	0.1075	0.0007	0.043	0.043	61
Loaders/Backhoes	0.4063	0.7746	0.1204	0.0008	0.0599	0.0599	66.8
Pavers	0.5874	1.0796	0.1963	0.0009	0.0769	0.0769	77.9
Paving Equipment	0.0532	0.1061	0.0166	0.0002	0.0063	0.0063	12.6

Table C-3. Construction Equipment Emissions (tons)							
Equipment	**CO**	**NOx**	**VOC**	**SOx**	**PM10**	**PM2.5**	**CO2**
Excavators	0.606112	1.377896	0.17628	0.001352	0.075608	0.075608	124.384
Plate Compactors	0.027352	0.034112	0.005408	0.000104	0.002184	0.002184	4.472
Trenchers	1.05664	1.713296	0.385008	0.001456	0.143104	0.143104	122.096
Cement Mixers	0.046488	0.068432	0.011752	0.000104	0.004576	0.004576	7.488
Generator Sets	0.211276	0.402792	0.062608	0.000416	0.031148	0.031148	34.736
Loaders/Backhoes	0.739466	1.409772	0.219128	0.001456	0.109018	0.109018	121.576
Pavers	0.1362768	0.2504672	0.0455416	0.0002088	0.0178408	0.0178408	18.0728
Paving Equipment	0.0123424	0.0246152	0.0038512	0.0000464	0.0014616	0.0014616	2.9232
Total	**2.8359532**	**5.2813824**	**0.9095768**	**0.0051432**	**0.3849404**	**0.3849404**	**435.748**

Table C-4. Emissions from Delivery of Equipment and Supplies							
Number of Deliveries (per day)	4						
Number of Trips (per delivery)	2						
Miles Per Trip	50						
Days of Construction	260						
Total Miles	104,000						
Pollutant	**CO**	**NOx**	**VOC**	**SOx**	**PM10**	**PM2.5**	**CO2**
Emission Factor (lbs/mile)	2.20E-02	2.40E-02	3.00E-03	2.60E-05	8.60E-04	7.40E-04	2.70E+00
Total Emissions (lbs)	2,288.00	2,496.00	312.00	2.70	89.44	76.96	280,800.00
Total Emissions (tons)	**1.144**	**1.248**	**0.156**	**0.001352**	**0.04472**	**0.03848**	**140.4**

Table C-5. Particulates from Surface Disturbance							
TSP Emissions	37.4	lb/acre					
PM10/TSP	0.45						
PM2.5/PM10	0.15						
Period of Disturbance	260	days					
Capture Fraction	0.5						
Building/Facility	**Area [acres]**		**TSP [lbs]**	**PM10 [lbs]**	**PM10 [tons]**	**PM2.5 [lbs]**	**PM2.5 [tons]**
All Facilities	2.3		11,183	5,032	2.516085	1,677	0.838695
Total	**2.3**		**11182.6**	**5032.17**	**2.516085**	**1677.39**	**0.838695**

Table C-6. Emissions from Construction Worker Commutes							
Number of Workers	30						
Number of Trips (per worker per day)	2						
Miles Per Trip	50						
Days of Construction	260						
Total Miles	780,000						
Pollutant	**CO**	**NOx**	**VOC**	**SOx**	**PM10**	**PM2.5**	**CO2**
Emission Factor (lbs/mile)	1.10E-02	1.10E-03	1.10E-03	1.10E-05	8.50E-05	5.30E-05	1.10E+00
Total Emissions (lbs)	8,580	858	858	9	66	41	858,000
Total Emissions (tons)	**4.29**	**0.429**	**0.429**	**0.00429**	**0.03315**	**0.02067**	**429**

Table C-7. Total Construction Emissions (tons)							
Activity/Source	**CO**	**NOx**	**VOC**	**SOx**	**PM10**	**PM2.5**	**CO2**
Heavy Equipment	2.8359532	5.2813824	0.9095768	0.0051432	0.3849404	0.3849404	435.748
Delivery of Equipment	1.144	1.248	0.156	0.001352	0.04472	0.03848	140.4
Surface Disturbance	0	0	0	0	2.516085	0.838695	0
Worker Commutes	4.29	0.429	0.429	0.00429	0.03315	0.02067	429
Total Emissions	**8.2699532**	**6.9583824**	**1.4945768**	**0.0107852**	**2.9788954**	**1.2827854**	**1005.148**

***de minimis* (tons per year) (attainment/non-attainment or maintenance)**	100/50	100/50	100/50	100/50	100/50	100/50	27,563
Exceeds *de minimis* threshold?	No	No	No	No	No	No	No
Years of construction to exceed de minimis threshold	12.09196686	14.37115615	66.90857238	9271.965286	33.56949	77.9553618	27.421832

APPENDIX D

EJSCREEN Report

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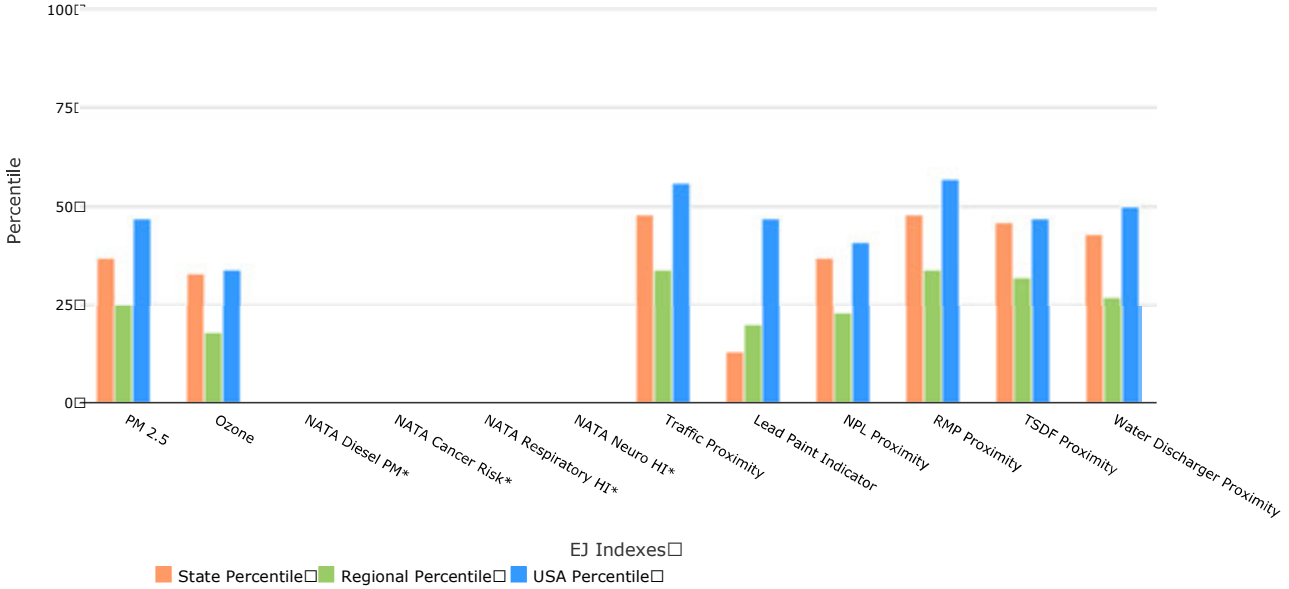
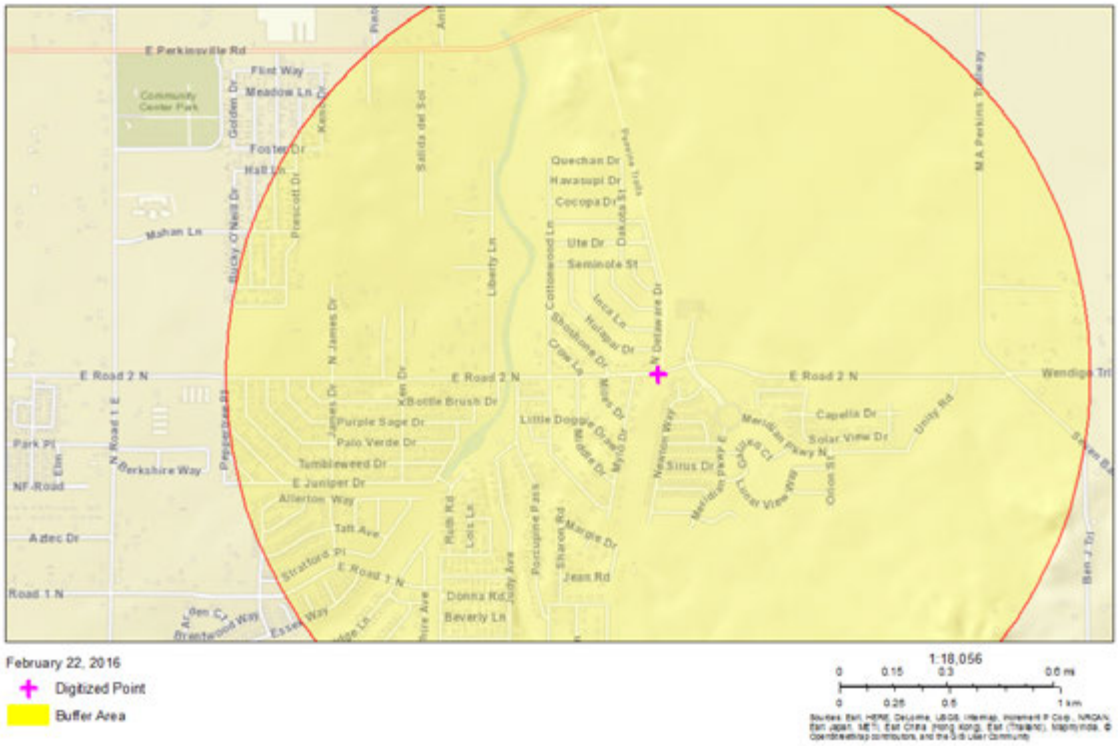
1 mile Ring Centered at 34.760180,-112.425258
ARIZONA, EPA Region 9
Approximate Population: 2963
Project Site Pinpoint - Chino Valley Water Line Extension

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	37	25	47
EJ Index for Ozone	33	18	34
EJ Index for NATA Diesel PM*	N/A	N/A	N/A
EJ Index for NATA Air Toxics Cancer Risk*	N/A	N/A	N/A
EJ Index for NATA Respiratory Hazard Index*	N/A	N/A	N/A
EJ Index for NATA Neurological Hazard Index*	N/A	N/A	N/A
EJ Index for Traffic Proximity and Volume	48	34	56
EJ Index for Lead Paint Indicator	13	20	47
EJ Index for NPL Proximity	37	23	41
EJ Index for RMP Proximity	48	34	57
EJ Index for TSDF Proximity	46	32	47
EJ Index for Water Discharger Proximity	43	27	50

EJ Index for the Selected Area Compared to All People's Block Groups in the State/Region/US



This report shows environmental, demographic, and EJ indicator values. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



Selected Variables	Raw data	State Average	%ile in State	EPA Region Average	%ile in EPA Region	USA Average	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	5.99	7.93	7	9.95	1	9.78	1
Ozone (ppb)	53.3	54.7	26	49.7	60	46.1	86
NATA Diesel PM (µg/m^3)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Air Toxics Cancer Risk (risk per MM)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Respiratory Hazard Index*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Neurological Hazard Index*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Traffic Proximity and Volume (daily traffic count/distance to road)	0.96	100	4	190	1	110	2
Lead Paint Indicator (% pre-1960s housing)	0.04	0.094	61	0.25	32	0.3	22
NPL Proximity (site count/km distance)	0.025	0.065	20	0.11	21	0.096	29
RMP Proximity (facility count/km distance)	0.0097	0.29	3	0.41	0	0.31	0
TSDF Proximity (facility count/km distance)	0.0061	0.092	6	0.12	2	0.054	14
Water Discharger Proximity (count/km)	0.039	0.22	8	0.19	9	0.25	7
Demographic Indicators							
Demographic Index	27%	40%	37	46%	24	35%	47
Minority Population	13%	42%	14	57%	5	36%	31
Low Income Population	41%	37%	60	35%	63	34%	66
Linguistically Isolated Population	2%	5%	44	9%	25	5%	53
Population with Less Than High School Education	14%	15%	59	18%	50	14%	59
Population under Age 5	7%	7%	55	7%	58	7%	62
Population over Age 64	23%	14%	84	12%	91	13%	90

*The National-Scale Air Toxics Assessment (NATA) environmental indicators and EJ indexes, which include cancer risk, respiratory hazard, neurodevelopment hazard, and diesel particulate matter will be added into EJSCREEN during the first full public update after the soon-to-be-released 2011 dataset is made available. The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: http:// www.epa.gov/ttn/atw/natamain/index.html.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not

provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.
