Environmental Assessment

TRI-CITY REGIONAL SANITARY DISTRICT
WASTEWATER COLLECTION AND TREATMENT – PHASE I OF III
Gila County, Arizona

MARCH 2018

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ENVIRONMENTAL ASSESSMENT

FOR

TRI-CITY REGIONAL SANITARY DISTRICT
WASTEWATER COLLECTION AND TREATMENT – PHASE I OF III
GILA COUNTY, ARIZONA

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ACRONYMS AND ABBREVIATIONS

AAC	Arizona Administrative Code
Ac	acre
ADA	Arizona Department of Agriculture
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AGFD	Arizona Game and Fish Department
APE	area of potential effects
APP	Aquifer Protection Permit
ASLD	Arizona State Land Department
ASM	Arizona State Museum
AZPDES	Arizona Pollutant Discharge Elimination System
BGEPA	Bald and Golden Eagle Protection Act
BHP	BHP Billiton
BLM	Bureau of Land Management
BMP	best management practice
CAA	Clean Air Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DMA	Designated Management Agency
DOT	Department of Transportation
du	dwelling unit
EA	environmental assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FMI	Freeport-McMoRan, Inc.
gpd	gallons per day
gpm	gallons per minute
IGA	Intergovernmental Agreement
IPAC	Information, Planning, and Conservation
LE	Listed Endangered
LT	Listed Threatened
MBR	membrane bioreactor
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement

NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
PACE	Pacific Advanced Civil Engineering, Inc.
PER	preliminary engineering report
PT	Proposed Threatened
PXN	Proposed Experimental Non-Essential Population
RD	Rural Development
ROW	right-of-way
RUS	Rural Utilities Service
RV	recreational vehicle
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SWPPP	stormwater pollution prevention plan
TRSD	Tri-City Regional Sanitary District
USDA	US Department of Agriculture
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
WQARF	Water Quality Assurance Revolving Fund
WRF	water reclamation facility
WWTF	wastewater treatment facility

1.0 PURPOSE AND NEED OF THE PROPOSAL

1.1 Introduction

The Tri-City Regional Sanitary District (TRSD) has applied for financial assistance from the U.S. Department of Agriculture (USDA) Rural Development (RD) Program to provide a wastewater collection and treatment system to its users. The proposed project is located approximately 80 miles east of Phoenix in the Globe – Miami area in Gila County, Arizona and encompasses a three-phased approach based on direction from USDA related to the funding process and availability of funds (Figure 1). The phases have been generally defined by geography with project activities consisting of the installation of sewer collection lines throughout the TRSD service area (refer to Section 2.0 for description of the Proposed Action). The Phase I project area is located in the western portion of the TRSD and also includes portions of the southern extent of the TRSD where a new water reclamation facility (WRF) would be constructed. The Phase II project area is located in the central and southeastern portion of the TRSD, and the Phase III area is located in the northern extent of the TRSD. Funding and construction activities would be completed separately for each phase, with Phase I occurring first.

TRSD has applied for federal financial assistance under the USDA RD/Rural Utilities Service (RUS) Water and Waste Disposal Loan and Grant Program. This program provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas. In addition, this Loan and Grant Program also assists small, financially distressed rural communities in extending and improving water and waste treatment facilities that serve local households and businesses (USDA 2015).

Prior to providing TRSD financial assistance for the project, USDA RD/Rural Utilities Service (RUS) is required by the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code 4321–4346), to analyze the potential environmental impacts that would occur as a result of funding the proposed project. In addition to NEPA, this Environmental Assessment (EA) was also prepared in accordance with USDA RUS's environmental policies and procedures (7 Code of Federal Regulations [CFR] 1794). The EA was developed jointly with the USDA RD Draft Preliminary Engineering Report (PER) Update prepared by Pacific Advanced Civil Engineering, Inc. (PACE) in accordance with 7 CFR 1780.33 (Pace 2017). Subsequent NEPA analysis will be conducted for Phases II and III, prior to funding and project development and are considered in this EA as reasonably foreseeable future actions in the cumulative impact section.

1.2 Project Background

The City of Globe and Town of Miami each operate their own wastewater collection and treatment systems that serve their populations. Sanitation in the area between these communities has been historically handled with outhouses and cesspools[1] constructed on an as-needed basis. The TRSD was formed when the Pinal Sanitary District and the Cobre Valley Sanitary District merged in 2011, in order to better manage wastewater treatment and disposal across both districts. The TRSD service area encompasses approximately 5.45 square miles and lies within the Salt River Basin Watershed.

[1] A cesspool is an excavation or non-watertight unit that receives untreated, water-carried, liquid human waste from a home or business allowing direct discharge into the soil. The use of cesspools in Arizona has been prohibited since 1976 (http://www.gilacountyaz.gov/government/community_development/wastewater_faqs.php).

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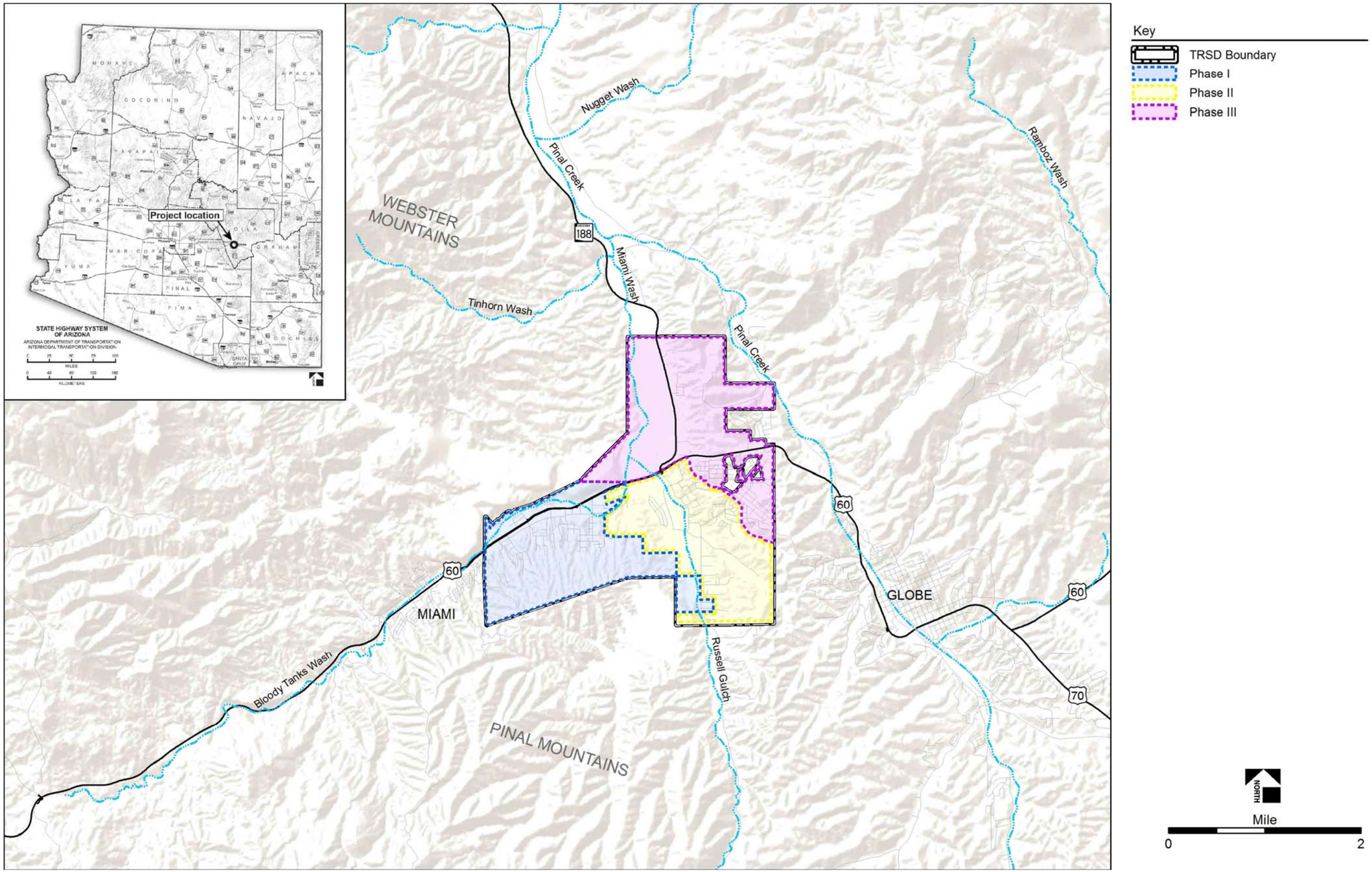

Figure 1. State Location and Project Vicinity Map

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Currently, the majority of wastewater collection and treatment in the TRSD is achieved through individual on-site septic systems[2] and cesspools. The construction of cesspools was prohibited in the U.S. in the 1970s due to their inability to treat wastewater before discharge; regulations to improve septic system processes were established in 1990. The majority of homes in the TRSD were constructed prior to 1990. Numerous public complaints and Notices of Violation were recorded between 2007 and 2012. Complaints and violations included situations were cesspools had collapsed and raw sewage was ponding or flowing off the property. Other issues occurred where greywater (e.g., washing machine water) was being actively pumped onto surface of the adjoining property, or where greywater from failing cesspools were pumped onto the surface to prevent the cesspool from overflowing. It is estimated that nearly 80 percent of residential systems within the TRSD are currrently in violation of federal and state regulations. Gila County has discontinued the process of actively seeking out properties in violation as the net outcome may result in a large portion of the community being disconnected from water services (PACE 2017).

In addition to outdated, poorly functioning septic systems, the majority of the homes within the TRSD do not have enough usable land on which to install a replacement septic system. It is estimated that the average lot size in the TRSD is 5,000 square feet and in the mining subdivisions, the average lot size is 3,750 square feet. Gila County requires that a parcel must have a minimum size of 10,000 square feet in order to install a septic system (Gila County 2006). Although some small lots qualify to use an alternative treatment system to overcome lot limitations, these systems typically cost more than the appraised value of the property. Due to the relatively small lot size, it is not feasible for many property owners in the TRSD to replace their septic systems in order to meet current standards. In situations where violations have been reported and property owners cannot afford to replace their septic systems, properties within TRSD have been abandoned or used for storage because the water service being turned off (PACE 2017).

1.3 Purpose and Need of the Proposed Project

The purpose of the proposed project is to provide wastewater collection and treatment to properties within Phase I of the TRSD service area in order to address failing wastewater treatment methods. Based on a 2012 Sewage Treatment Study conducted by the Gila County Wastewater Department, there are very few permitted septic systems within the TRSD service area that do not have a high risk of failure (Gila County 2012).

The need for the proposed project is based on concerns over the protection of public health and safety and the environment. The majority of wastewater collection and treatment in the TRSD service area is achieved through onsite individual septic systems and cesspools, of which nearly 80 percent are in violation of the Clean Water Act (CWA), Arizona Administrative Code (AAC), and/or Arizona Department of Environmental Quality (ADEQ) regulations. Although these types of systems can adequately treat wastewater, environmental and human health consequences can arise if the systems are not designed, installed, and maintained properly over time. Many of the existing septic tanks are more than 40 years old; twice their estimated normal functioning life. As these systems age, the effects

[2] A septic system is a two-part sewage treatment and disposal system buried in the ground. It is composed of a septic tank and a soil drain field. The sewage flows by gravity into the septic tank where the solids settle out of the liquid. The liquid, called effluent, then flows to the drain field where it soaks into the ground and oxygen breathing bacteria consume and/or kill the remaining sewage, bacteria and viruses so that the water is clean and ready to re-enter the fresh water supply (http://www.gilacountyaz.gov/government/community_development/wastewater_faqs.php#QUESTION1).

of improper design and maintenance considerations are exacerbated, thereby increasing the magnitude of system failures and the resultant risks to human health and the environment.

As system failures become more frequent, the potential for waterborne illness from various pathogenic microorganisms and degradation of the environment from the release of ammonia and nitrates, increases. Children, the elderly, pets, and wildlife are at greatest risk and are generally more likely to come into contact with contaminated areas. Cesspools typically receive domestic sewage from the residence or another building and then allows the wastewater to percolate out from the bottom. Cesspools pose a problem because they are not designed to treat sanitary waste, and they also have high levels of nitrates and coliform bacteria. In addition, other pollutants may be present in the cesspools, such as phosphates, chlorides, grease, viruses, etc. Due to the risks associated with using cesspools to treat wastewater, this type of treatment system was outlawed under the CWA and AAC (PACE 2017).

In addition to other factors, the diminishing wastewater conditions, the amount of abandoned properties, and/or the properties that have had their water disconnected due to violations of on-site wastewater management have contributed to the population decrease that has occurred since 1990 in these TRSD communities. The steady decline in population in the TRSD and increasing number of abandoned homes has left parts of the TRSD in disarray resulting in low property values and less then favorable living conditions. The problems that affects the TRSD not only affects TRSD, but also the neighboring municipalities. The population decline seen in the TRSD service area affects the commercial areas in the Globe-Miami area, and in turn the tax revenues of Globe and Miami (PACE 2017).

Another environmental concern that arises with on-site treatment systems is the release of pollutants, including nitrogen, to underlying groundwater. When systems are poorly sized, located, or maintained, nitrogen levels can exceed the treatment capacity of the soil, allowing effluent with a high nitrogen concentration to reach groundwater. The effects from excessive nitrogen loading on the region's groundwater could be seen at Theodore Roosevelt Lake, which aside from a notable natural ecosystem, also provides water storage for the Salt River Project.

In summary, potential public health, sanitation, and environmental issues are arising from the failing wastewater disposal systems within the Phase I area, making it crucial to implement changes to the current methods of treatment within the TRSD service area (PACE 2017).

1.4 Decision to be Made

The USDA RUS must decide whether or not to provide the financing assistance to TRSD for the installation of a wastewater collection system and treatment facility for Phase I. The information presented and the analyses performed in this EA will allow the USDA RUS to determine the level of significance of environmental impacts associated with the Proposed Action. The significance of impacts identified will determine whether the impacts can be mitigated or whether a higher level of environmental documentation is necessary, i.e., Environmental Impact Statement.

2.0 PROPOSED ACTION AND ALTERNATIVES

Three alternatives are carried forward for analysis in this EA: the Proposed Action, the Miami WRF Conveyance Alternative, and the No Action Alternative. The No Action Alternative evaluates the existing baseline conditions and provides a basis for comparing impacts.

2.1 Proposed Action

The Proposed Action would include the installation of a new sewer collection system within the Phase I project area, which includes Lower Miami and Claypool, and would convey wastewater from area residents and property owners to a new WRF (Figure 2). The TRSD would use USDA RD/ RUS Water and Waste Disposal Loan and Grant Program funding to construct the new WRF and associated collection system. The new WRF would be designed to have an initial treatment capacity of 250,000 gallons per day (gpd) and would allow for 865 new connections in the Phase I area. It is anticipated that the WRF would be a package plant using a membrane bioreactor (MBR) process[3]. When used for domestic wastewater, this process can produce a high quality effluent that meets ADEQ's Best Available Demonstrated Control Technology and Class A+ Reclaimed Water Standards[4]. Effluent would be discharged into Russell Gulch, located approximately 500-feet east of the proposed WRF. Approximately 600 pounds of biosolids[5] are anticipated to be produced by the proposed facility on a daily basis. The biosolids would be consolidated in an on-site roll-off collection bin, hauled off-site, and disposed of at a local landfill on an as-needed bases.

TRSD is currently working with BHP Billiton (BHP) on an agreement to use an approximate 59-acre site (Gila County parcel number 207-23-001C) located west of Russell Road and Russell Gulch within the Phase I area for the development of the new WRF (Figure 2). Property ownership would be transferred from BHP to TRSD and would include an access road along an existing unimproved road and along the east side of the Cobre Valley Community Hospital from Besich Boulevard to the WRF (approximately 0.5 miles). No improvements to the access road, located entirely on BHP-owned property, would be required for the project.

The undeveloped BHP parcel has been previously disturbed by mining activities and includes a leachfield that services approximately 40 single-family residential properties (referred to as the Bechtel Tract) located in the southeastern most portion of Phase I area (Figure 2). As part of the property transfer from BHP to TRSD, the collection line associated with the Bechtel Tract, once operational, would be disconnected from the leachfield and would be connected to the WRF.

Although the final design of the WRF would not be completed until after funding for Phase I is secured, it is anticipated that the new WRF would only require a minimal footprint (less than one acre), which

[3] A membrane bioreactor process is a hybrid of the conventional activated sludge system for wastewater treatment. The membrane bioreactor is a membrane such as a microfiltration or ultrafiltration membrane that is integrated with a biological process. While the activated sludge process uses a secondary clarifier or settlement tank for solid/liquid separation, a membrane bioreactor process uses a membrane for this function (http://www.thembrsite.com/about-mbrs/what-are-mbrs/).

[4] ADEQ's Class A+ Reclaimed Water is wastewater that has undergone secondary treatment, filtration, nitrogen removal treatment, and disinfection. Standards refers to a class of reclaimed water quality that allows for open public access and water that is pathogen-free, denitrified, and has been filtrated to meet turbidity levels of less than two nepholometric turbidity units (NTUs) (http://www.azwater.gov/azdwr/WaterManagement/documents/ARTICLE3ReclaimedWaterQualityStandards.pdf).

[5] Biosolids are nutrient-rich organic materials resulting from the treatment of domestic sewage. When treated and processed, these residuals can be recycled and applied as fertilizer to improve and maintain productive soils and stimulate plant growth (https://www.epa.gov/biosolids/frequent-questions-about-biosolids).

would include an emergency-power generator. In addition to the design and construction of a new WRF, the following features are included in the Proposed Action:

- Approximately 58,000 linear feet of 6- to 10-inch sewer collection lines to collect and transfer wastewater within Phase I of the TRSD service area; installed at an average depth of approximately six feet.
- Approximately 7,500 linear feet of force main sewer line; installed between four and six feet deep.
- Installation of approximately 140 manholes for access to the sewer collection system.
- Design and construction of one regional submersible pump lift station[6], as well as several neighborhood lift stations, to convey wastewater to the new WRF.
- New service connections (laterals) from the proposed wastewater collection system to approximately 823 residential and commercial properties, to include yard restoration following installation, as needed. TRSD would maintain responsibility of the laterals from the sewer main to the property line, while the property owners would be responsible for maintaining the lateral from the property line to the existing plumbing, following installation by TRSD.
- Abandonment in place and closure of approximately 823 existing on-site septic systems and cesspools within the Phase I project area, in accordance with closure requirements found in AAC R18-9-A309. For each connection, the TRSD would obtain a right-of-entry and construction easement from each owner. Without a granted right of entry, the TRSD would not be able to complete the sewer connection under this project. Fill material used to fill onsite septic systems and cesspools would be obtained from an off-site approved material source.
- Due to the topography of the Phase I area, installation of low pressure grinder pumps[7] may be required. The grinder pumps would generally be installed below ground within the disturbed area for the installation of the sewer system lines and connections. The number and location of grinder pumps, if needed, would be determined during the project design.
- Decommissioning of the existing BHP-operated leach field that serves the Bechtel Tract homes and extending the existing sewer collection system line approximately 35 feet to connect with the new WRF.

The design criteria used in the development of the Proposed Action would include RUS design policies (7 CFR 1780.57), AAC R-18-9, and ADEQ Engineering Bulletin No. 11 in addition to the following design features:

- Where sewer lines would cross railroads, jurisdictional delineations for Waters of the United States, and/or the United States Route 60 (US 60), pipes would be installed using trenchless technologies such as jack-and-bore methods with steel casings. All other sewer installations would be completed by conventional open-trench methods.
- New sewer system installation would include interceptors, laterals and house service connections within the TRSD's existing service area.

[6] Wastewater lift stations are facilities designed to move wastewater from lower to higher elevation. Elements of these enclosed facilities typically include a receiving well, often equipped with a screen or grinder; pumps and piping; motors; power supply; equipment control and alarm systems; and odor control and ventilation systems (Lift Station Services, PRC 2017).

[7] Grinder pumps are devices that grinds waste into a fine slurry and then pumps it into the main gravity sewer line.

- No substantive hard materials would be encountered during excavation for the sewer line replacement. A geotechnical evaluation must be performed to characterize the soil that would be encountered in the area.
- Existing on-site septic systems and cesspools would be left in place and closed in accordance with the closure requirements found in AAC R18-9-A309.

2.2 Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would include the replacement of on-site individual septic systems with wastewater collection system infrastructure throughout Phase I of the TRSD service area, as described in Section 2.1. However, under this alternative all collected wastewater would be treated at the existing Miami WRF (Figure 3), which would require the following upgrades in addition to the project features described above:

- Construction of approximately 3,500 linear feet of new force main sewer line between the new lift station and the Miami WRF.

The Miami WRF is located within the Phase II portion of the TRSD service area on property owned by Freeport-McMoRan, Inc. (FMI). Existing wastewater collection lines and a lift station associated with the Miami WRF service Miami High School, Cobre Valley Community Hospital, and select commercial properties within the Phase I project area. The Miami WRF sits at an approximate elevation of 3,350 feet above sea level, has a design capacity of 640,000 gpd, and is permitted to produce Class A+ effluent. The current effluent from the Miami WRF is being used as a secondary water source by the Freeport-McMoRan copper mining operation. The existing lift station and force main for the Miami WRF are designed to convey projected flows through 2030 (PACE 2017).

The Miami WRF Conveyance Alternative does not include the following elements of the Proposed Action: construction of a new WRF; the force main between the proposed lift station and the new WRF; and the connection of the Bechtel Tract to the new WRF. The BHP would continue to maintain the existing leachfield for these home until such time that they are connected to the wastewater collection system associated with future Phase II activities.

Instead of the construction of a new WRF, the Miami WRF Conveyance Alternative would include payment from the TRSD to the Town of Miami for the purchase of capacity within the existing Miami WRF. By receiving a capacity fee, the Town would be obligated to provide treatment of the TRSD's wastewater up to the purchased capacity. Based on current and projected flows, approximately 225,000 gpd is available for purchase by TRSD (PACE 2017). The Miami WRF Conveyance Alternative would require an Intergovernmental Agreement (IGA) between TRSD and the Town of Miami. Conditions of the IGA would require that TRSD receive full access to Miami's audited financial records concerning the operation and maintenance of the WRF.

2.3 No Action Alternative

Under the No Action Alternative, the municipal sewer collection system within the TRSD service area would not be improved. Under this alternative, individual property owners would continue to be responsible for septic tank maintenance.

2.4 Alternatives Considered but Eliminated from Detailed Study

All Wastewater Flow Conveyed to Globe WWTF Alternative

Previous engineering reports and environmental documentation completed for this proposed project included evaluations of the conveyance of wastewater (either all wastewater flow or a portion of wastewater flow) to the City of Globe's Pinal Creek Wastewater Treatment Facility (WWTF) for treatment. The Pinal Creek WWTF is currently not operating as designed, and the costs of updating or upgrading the facility are unknown. Therefore the utilization of the Pinal Creek WWTF for treatment of wastewater was eliminated from further consideration because of the unknown costs to upgrade the facility and because of the proximity of the Miami WRF and its available capacity. The Miami WRF does not currently require any major improvements. The Miami WRF has had issues with leakage and lift station pump failures, however, the Town of Miami is currently in the process of repairing it's collection system, separate from this Phase I project (PACE 2017).

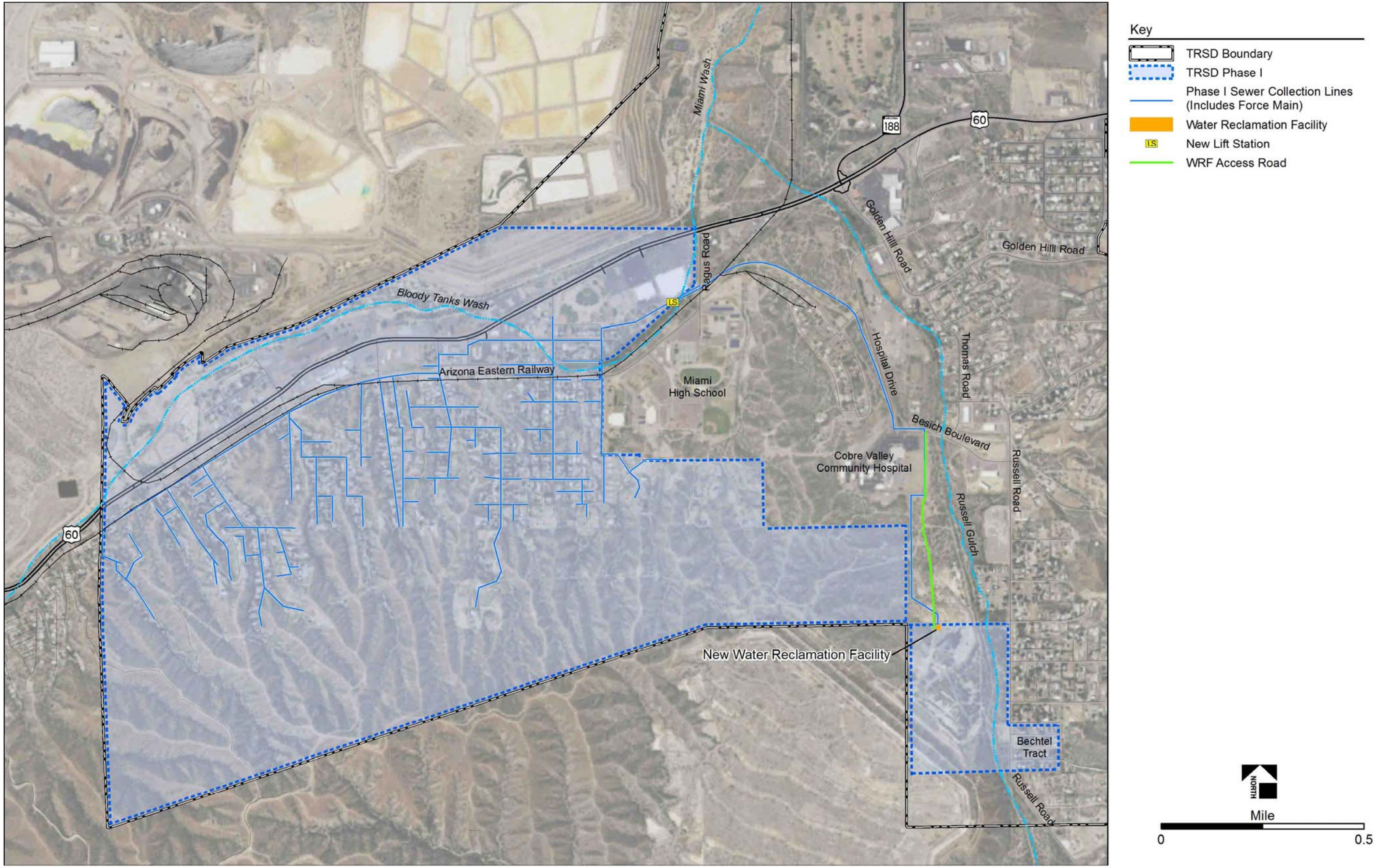

Figure 2. Proposed Action

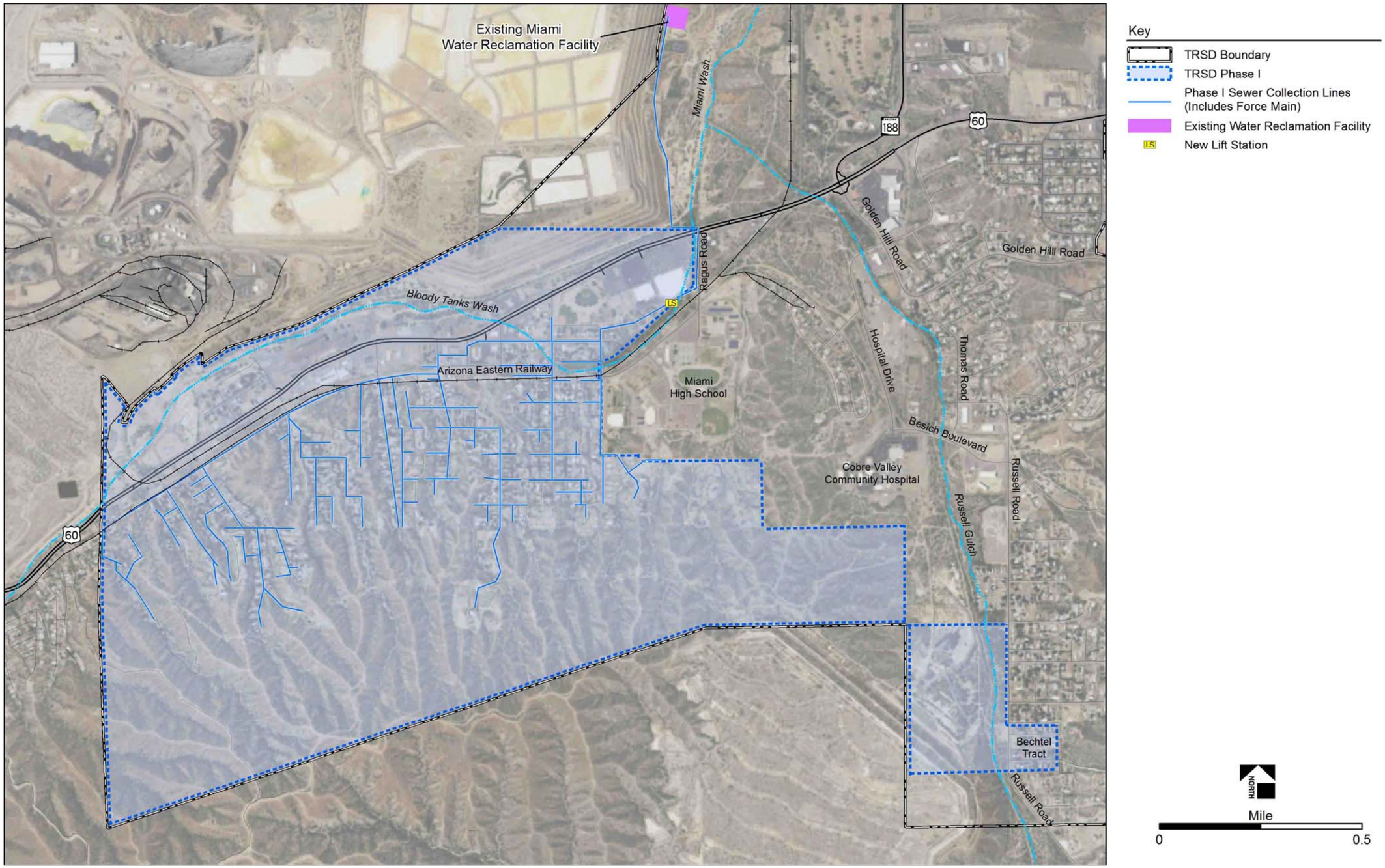

Figure 3. Miami WRF Conveyance Alternative

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

This chapter provides details of the existing or baseline conditions (affected environment) occurring within and around the Phase I area and analyzes the potential impacts associated with the three alternatives identified in Chapter 2. If the analysis of the affected environment indicates that the resource is not present, then an analysis of the potential environmental consequences for that resource was not considered. Potential impacts are described in terms of duration, intensity, type (direct, indirect), and context. The environmental effects are described using the following terms:

In this document, the terms “effect” and “impact” are used synonymously. Effects fall into two categories:

- ***Direct****:* caused by the action and occurs at the same time and place.
- ***Indirect****:* caused by the action, but occurs later in time or further in distance, but are still reasonably foreseeable.

For the purposes of this analysis, duration of the impact is defined as follows:

- ***Short-term***: impacts during construction and less than a year after the completion of construction.
- ***Long-term***: impacts that would be 5 years or greater in duration.

For the purposes of this analysis, intensity or severity of the impact is defined as follows:

- ***Negligible***: changes would not be detectable and/or measureable. The resource would be essentially unchanged or unaltered.
- ***Minor***: changes would be detectable, localized, and/or measurable. The resource would be slightly changed or altered.
- ***Moderate***: changes would be clearly detectable, measurable, and/or have an appreciable effect on the resource. The resource would be notably changed or altered.
- ***Major***: changes would be readily detectable, and/or have a severe effect on the resource. The resource would be substantially changed or altered.

For the purposes of the type of impact is defined as follows:

- ***Neutral:*** a change that is neither adverse or beneficial.
- ***Adverse****:* impacts that would degrade the resource condition, use, or value compared to its current condition, use, or value.
- ***Beneficial****:* impacts that would improve the resource condition, use, or value compared to its current condition, use, or value.

3.1 Ownership/Jurisdiction, and General Land Use

Topics considered under land use include land ownership/jurisdiction, general land use, important farmland, and formally classified lands.

3.1.1 Affected Environment

3.1.1.1 Ownership/Jurisdiction

The majority of the Phase I area is located in an unincorporated area of Gila County, Arizona between the City of Globe and the Town of Miami with a small portion of the Phase I area within the City of

Globe. The Phase I area encompasses approximately 5.45 square miles and includes the neighborhoods of Lower Miami, Claypool, Miami Gardens, Vertical Heights, Midland City, Central Heights, and Little Acres. The majority of the Phase I area consists of privately owned land. Portions of the project area along US 60 would be within the existing roadway corridor, segments of which are Arizona Department of Transportation (ADOT) and Gila County right-of-way (ROW). The proposed sewer collection system would also cross the Arizona Eastern Railway. The location of the new WRF in the Proposed Action is an approximate 59-acre parcel of land (Gila County parcel number 207-23-001C) owned by BHP, which was previously disturbed during mining activities. Land ownership adjacent to the Phase I area includes Bureau of Land Management (BLM), Arizona State Land Department (ASLD), and private landowners, including several mining operations. Regional land jurisdiction includes BLM lands, lands administered by the ASLD, the Tonto National Forest, and the San Carlos Apache Reservation. Greater than 93 percent of lands in Gila County are United States Forest Service (USFS) or Indian Reservations (Gila County 2003).

3.1.1.2 General Land Use

According to the Gila County Community Land Use Plan, land use within the project area predominately consists of medium- to high-density residential (2-10 dwelling units/acre [du/ac]), with the remainder of the TRSD service area comprised of mixed use, community commercial, light industrial, and heavy industrial (Gila County 2012). The dominant land use of the areas surrounding the TRSD service area are light and heavy industrial, primarily consisting of the numerous copper mines and smelting operations, as well as light-density residential (less than 2 du/ac) and the incorporated communities of Miami and Globe (Gila County 2003).

Gila County has identified goals for balanced land use and development for the unincorporated areas around Globe and Miami. According to the Gila County Comprehensive Plan, the existing mineral extraction and ore processing operations are an important part of the local community and a major contributer in the local economy (Gila County 2012). Development in the area has historically and largely been a result of the need to provide local mine workers with housing and support services. As a result of the extensive failures of cesspools and septic systems, the Comprehensive Plan discourages the use of individual septic systems and encourages the formation of service districts to provide regional and communitywide wastewater treatment facilities (Gila County 2003).

3.1.1.3 Important Farmland

The Farmland Protection Policy Act is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. For the purpose of the Act, “farmland” includes prime farmland, unique farmland, and land of statewide or local importance. Prime farmland is defined as land that has the best physical and chemical characteristics for producing crops. Prime farmland must have an adequate water supply, high nutrient content and appropriate alkalinity, and must be permeable to water and air. Unique farmland is land other than prime farmland that has unique characteristics for the production of specific crops. Farmland does not have to be actively used for cropland to be subject to the act’s requirement and can include forest land, pastureland, cropland, or other land, but not water or urban built-up land.

No actively cultivated fields or agricultural operations were identified within the Phase I area. A review of the United States Department of Agriculture (USDA) Natural Resources Conservation Service’s (NRCS) Web Soil Survey indicates that no prime farmland, unique farmland, or farmland of statewide or local importance are located within or adjacent to the Phase I area (NRCS 2013).

3.1.1.4 Formally Classified Lands

Formally classified lands is a USDA RD/RUS classification that includes properties administered by federal, state, or local agencies or properties afforded special protection. Formally classified lands include but are not limited to national parks and monuments; natural landmarks; national historic sites and parks; wilderness areas; wild and scenic and recreational rivers; wildlife refuges; national seashores, lakeshores, and trails; state parks; BLM-administered lands; national forests and grasslands; tribal lands; or leases administered by the Bureau of Indian Affairs.

There are no formally classified lands within the project area that have been given special protection through formal legislative designation. The majority of the Phase I area consists of private land and ADOT and Gila County ROW. Adjacent to the TRSD service area, there are state trust lands and lands which are administered by BLM, but these lands have not been given special protection through formal legislative designation.

3.1.2 Environmental Consequences for Land Use

Analysis of the affected environment for land use indicates that no important farmland (Section 3.1.1.3) or formally classified lands (Section 3.1.1.4) are present within the Phase I area. Therefore, the environmental consequences for land use focus on ownership, jurisdiction, and general land use.

3.1.2.1 Ownership/Jurisdiction and General Land Use

Proposed Action

The Proposed Action consists of the installation of sewer collection lines and construction of a new WRF within Phase I of the TRSD service area. Construction impacts would be limited to previously disturbed areas, as the sewer collection system would be installed within or adjacent to existing roadway ROW and the WRF would be constructed on land previously used for mining operations by BHP. Installation of new sewer lines within roadway ROW would require an ADOT encroachment permit for the construction and maintenance. Encroachment permits and/or other authorizations would also be required from BHP, Gila County, and the Arizona Eastern Railway. Roadways typically account for the addition of future linear utilities within the ROW. Construction activities would need to be coordinated with Gila County, ADOT, adjacent residents, Arizona Eastern Railway, and BHP.

The Proposed Action would be consistent with the Gila County Comprehensive Plan, which discourages the use of individual septic systems and encourages the formation of service districts to provide regional and communitywide treatment facilities (Gila County 2003). The Proposed Action would help reduce residential and commercial properties becoming vacant over time because it would provide functional wastewater collection and treatment. Property ownership of a 59-acre parcel would be transferred from BHP to TRSD for the new WRF. This area is not being mined currently and development of the WRF would be limited to less than one acre. There would be no change in land use for this parcel because it currently serves as a leachfield and the remainder of the parcel not used for the new WFT would remain undeveloped and consistent with its present condition.

Indirect effects associated with the Proposed Action would include the potential to encourage new development as a result of connectivity to a WRF and would help reduce declining property values so that the current Phase I area land use would remain unchanged. Therefore, the Proposed Action is anticipated to have no impacts on jurisdiction and long-term, direct and indirect, negligible, beneficial

impacts on land use. There would be a long-term, direct, negligible, neutral impact from the change in ownership of the 59-acre parcel for the new WTP in the Proposed Action.

Best Management Practices

- TRSD would coordinate with ADOT, Gila County, Arizona Eastern Railway, BHP, and private land owners for encroachment permits or for the preferred real estate mechanisms (Utility Occupancy License, Utility License agreement, right of entry, etc.).

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

This alternative largely contains the same collection components as the Proposed Action, with the exception of the construction of a new WRF. Collected wastewater would be conveyed to the Miami WRF, which includes the installation of a force main between the lift station and Miami WRF. Construction activities would be similar to those under the Proposed Action. The Miami WRF Conveyance Alternative would not require the acquisition of the 59-acre parcel of land for the construction of the new WRF. This alternative would be consistent with the Gila County Comprehensive Plan in that the use of individual septic systems would be reduced. Therefore, the Miami WRF Conveyance Alternative is anticipated to have no impacts on property ownership/jurisdiction and long-term, direct and indirect, negligible, beneficial impacts on land use.

Best Management Practices

- TRSD would coordinate with ADOT, Gila County, Arizona Eastern Railway, FMI, and private land owners for encroachment permits or for the preferred real estate mechanisms (Utility Occupancy License, Utility License agreement, right of entry, etc.).

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system or new WRF would not occur, and residents within the Phase I area would continue to use existing individual septic systems. As individual septic systems continue to age and property values fall, the existing land use would potentially shift to more vacant and abandoned properties. Since there would be no construction activities, there would be no short-term impacts as a result of the No Action Alternative. Long-term direct and indirect moderate, adverse impacts on land use are anticipated from the No Action Alternative, as properties would continue to rely on aging and failing septic systems and additional residential properties would become vacant. There would be no impacts to jurisdiction or land ownership as a result of the No Action Alternative.

3.2 Floodplains

3.2.1 Affected Environment

Floodplains are areas of low, level ground present on one or both sides of a waterway and are subject to either periodic or infrequent inundation by floodwater. Floodplains are sensitive to construction or heavy/intense human use, which can result in changes to surface and/or hydrological features. Executive Order (EO) 11988, *Floodplain Management*, requires federal agencies to avoid to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In addition, the *Gila County Floodplain Management Ordinance,* dated December 1986 and most recently amended October 2015, was developed to conform to federal standards. This ordinance includes provisions that regulate the location and construction of buildings and other manmade structures within a designated floodplain. Gila County issues floodplain use permits in unincorporated areas of Gila County for all structures or improvements constructed within a regulatory floodplain.

A review of Federal Emergency Management Agency (FEMA) National Flood Hazard Layer dated 2016 indicates that Phase I of the TRSD service area includes areas of 100-year floodplain associated with two major drainages (Bloody Tanks Wash and Russell Gulch), as well as numerous tributaries to these waterways (Figure 4). Areas of 500-year floodplain were not identified within Phase I of the TRSD service area. Considerable residential, commercial, and industrial development presently occurs within the 100-year floodplain.

3.2.2 Environmental Consequences for Floodplains

Proposed Action

Installation of the Phase I sewer collection lines would be designed to occur outside the floodplain where possible to reduce potential impacts on the floodplains. However, in areas where installation of the sewer system within the floodplain is unavoidable, the collection system would be installed within previously disturbed areas to the greatest extent possible and would be installed so as not to alter or raise the existing floodplain elevation. Piping would be placed below ground level, and backfill would be compacted to the existing grade level. Surface cover would be replaced to pre-construction conditions.

WRF – The location of the proposed WRF is outside of the 100-year floodplain (Figure 5), and pumps and other wastewater infrastructure would be constructed outside the floodplain limits, where possible. The WRF is located near the boundaries of a 500-year floodplain. During final design, a 500-year floodplain analysis would be performed to determine impact and elevations to ensure this critical facility is designed to be protected from a 500-year flood event.

Lift Station – The location of a new lift station, necessary to move wastewater to the proposed WRF, would be located in the 100-year floodplain and near the boundaries of a 500-year floodplain (Figure 6). The entire TRSD service area was analyzed to maximize natural sewer flows dictated by gravity. Initial evaluations identified the lift station, to be most effective, should be located west of Ragus Road and south of the Arizona Eastern Railway. Consideration was given to four parcels in this vicinity (west of Ragus Road, north of the Eastern Railway), including a Safeway and Walmart. All four parcels are located entirely within the floodplain. Two of the parcels were removed from consideration as they consist of residential properties. Ease of access from Ragus Road was the determining factor between the final two parcels. During final design, a 500-year floodplain analysis would be performed to

determine impact and elevations to ensure this critical facility is designed to be protected from a 500-year flood event.No impacts to the floodplain are anticipated becuase the estimated footprint of the lift station is approximately 20-feet by 20-feet (approximately 0.59 acres). A Gila County Floodplain Use Permit would be required for the project.

The Proposed Action would result in temporary disruptions to floodplains where construction activities within the 100-year floodplain are unavoidable. The construction related activities are not anticipated to change the floodplain elevation to a point that would impact the floodplain, either temporarily or permanently. No impacts on flood flows or flood elevations are anticipated as a result of the Proposed Action, as the project would not permanently impede or redirect flows. Therefore, the Proposed Action is anticipated to have no impacts to floodplains, provided the applicable BMPs are implemented.

Best Management Practices

- TRSD would coordinate with the Gila County Public Works Department for a Floodplain Use Permit prior to the initiation of construction activities. Project components that would occur within the 100-year floodplain would be completed in accordance with the permit and Section 5.2 *Standards for Construction* of the Gila County Floodplain Management Ordinance, as amended (Gila County 2015). These measures include, but are not limited to the following required standards in all areas of special flood hazard:
    - All new construction and substantial improvements would be anchored to prevent flotation, collapse, or lateral movement of the structure;
    - All new construction and substantial improvements would be constructed using materials and utility equipment resistant to flood damage;
    - Adequate drainage paths around structures on slopes would be required to guide flood waters around and away from proposed or existing structures;
    - Structures would be flood-proofed below the regulatory flood level; to be watertight with walls substantially impermeable to the passage of water;
    - Structural components would be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
    - Construction would be certified by a registered professional engineer or architect.

Mitigation Measures

- During the final design of the sewer collection system, lift station and WRF, additional analysis would be performed to ensure that the WRF footprint would lie outside of the 100-year floodplain. Berms, additional grading, and/or other features would be incorporated into the final design, as necessary, to provide proper protection to the WRF and lift station from a 500-year flood event.

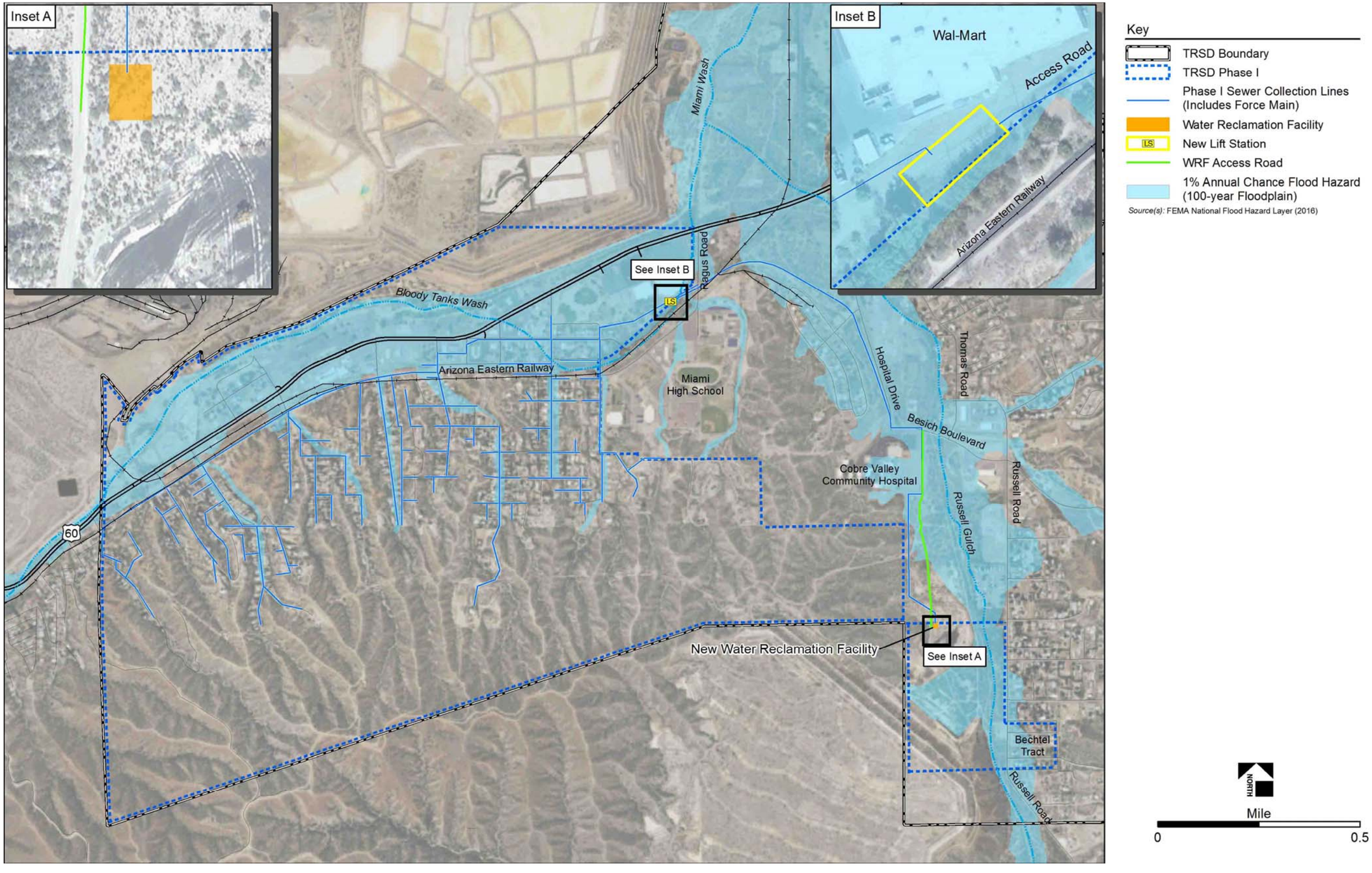

Figure 4. Floodplains

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Figure 5. New WRF Detail Map (applicable to the Proposed Action)

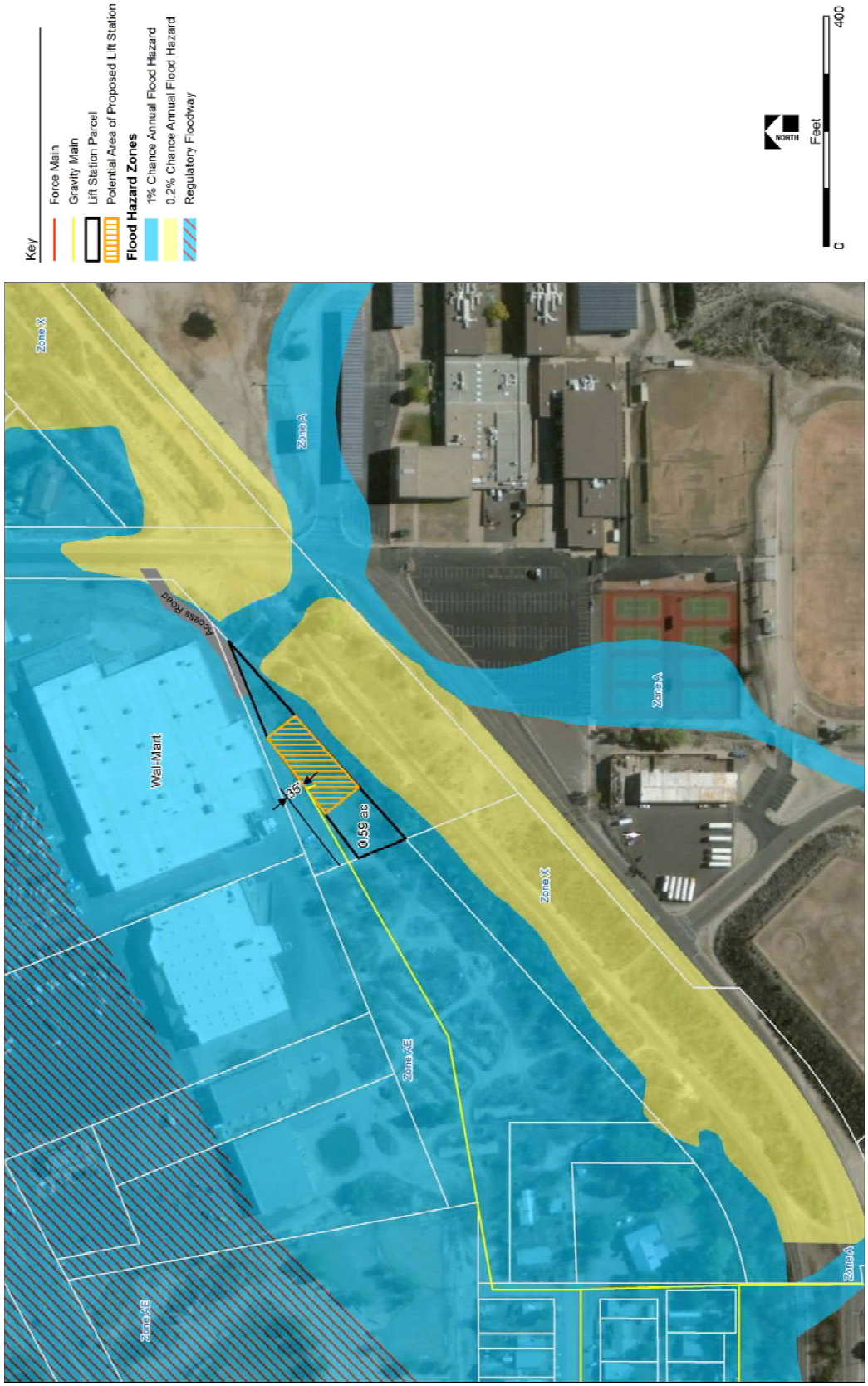

Figure 6. New Left Station Detail Map (applicable to the Proposed Action and Miami WRF Conveyance Alternative)

Miami WRF Conveyance Alternative

With the Miami WRF Conveyance Alternative no new WRF would be built. Construction activities for the sewer collection system components included in this alternative are similar to those under the Proposed Action and would require sewer lines installed within floodplains to avoid altering or raising the existing floodplain elevation. A Gila County Floodplain Use Permit would be required for any construction activities within the floodplain. The Miami WRF Conveyance Alternative would include the same construction components within the floodplain as the Proposed Action, consequently, construction activities and BMPs would be similar to those under the Proposed Action. Wastewater infrastructure would be constructed outside the floodplain limits to the greatest extent possible, although similar to the Proposed Action, the new lift station would be located in the 100-year floodplain and near the boundaries of a 500-year floodplain.

Impacts on floodplains would be the same as with the Proposed Action and would result in temporary disruptions where construction activities within the 100-year floodplain are unavoidable. The construction related activities are not anticipated to change the floodplain elevation to a point that would impact the floodplain, either temporarily or permanently.No impacts on flood flows or flood elevations are anticipated as a result of the Miami WRF Conveyance Alternative, as the project would not permanently impede or redirect flows. Therefore, the Miami WRF Conveyance Alternative is anticipated to have no impacts to floodplains, provided the applicable BMPs are implemented.

Best Management Practices

- TRSD would coordinate with the Gila County Public Works Department for a Floodplain Use Permit prior to the initiation of construction activities. Project components that would occur within the 100-year floodplain would be completed in accordance with the permit and Section 5.2 *Standards for Construction* of the Gila County Floodplain Management Ordinance, as amended (Gila County 2015). These measures include, but are not limited to the following required standards in all areas of special flood hazard:
    - All new construction and substantial improvements would be anchored to prevent flotation, collapse, or lateral movement of the structure;
    - All new construction and substantial improvements would be constructed using materials and utility equipment resistant to flood damage;
    - Adequate drainage paths around structures on slopes would be required to guide flood waters around and away from proposed or existing structures;
    - Structures would be flood-proofed below the regulatory flood level; to be watertight with walls substantially impermeable to the passage of water;
    - Structural components would be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
    - Construction would be certified by a registered professional engineer or architect.

Mitigation Measures

- During the final design of the sewer collection system and lift station, additional analysis would be performed to ensure features are incorporated into the final design, as necessary, to provide proper protection of the new lift station from a 500-year flood event.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and WRF would not occur. Residents within the project area would continue to use existing individual septic systems, and the potential for these systems to back-up or fail would continue to exist. Under the No Action Alternative, no construction activities would be completed. Therefore, there would be no impacts on the floodplains from the No Action Alternative.

3.3 Wetlands

A review of the online National Wetlands Inventory maintained by the United States Fish and Wildlife Service (USFWS) indicates that there are limited wetlands within the TRSD service area, none of which are located within the Phase I project area (Figure 7). Since no wetlands have been identified in the area of potential effect, no additional analysis or discussion has been included.

3.4 Cultural Resources

Since the proposed project may receive financial assistance from USDA RD/RUS's Water and Environmental Program, it is an action subject to compliance with Section 106 of the National Historic Preservation Act (NHPA), as amended (16 United States Code 470 et seq.). Section 106 (36 CFR Part 800, as amended, August 5, 2004) requires federal agencies to consider the effects of their undertakings on historic properties and to consult with the State Historic Preservation Office (SHPO) and Native American tribes.

3.4.1 Affected Environment

The term "cultural resources" as used in this document refers to any location of human activity, occupation, or use identifiable through inventory, historical documentation, or oral evidence. The term includes archaeological, historical, or architectural sites, landscapes, buildings, structures, objects, and places that possess historic and/or cultural significance as well as places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources may be but are not necessarily eligible for the National Register of Historic Places (NRHP).

Cultural resources are defined by the authority given to the Secretary of the Interior under the NHPA as follows:

- Cultural items as defined by the Native American Graves Protection and Repatriation Act
- Archaeological resources as defined by Archaeological Resources Protection Act
- Sacred sites as defined in EO 13007, *Indian Sacred Sites*, to which access is afforded under the American Indian Religious Freedom Act
- Collections and associated records as defined in 36 CFR 79

"Historic properties" are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian Tribe or Native Hawaiian organization and that meet the NRHP criteria. Historic properties need not formally be listed on the NRHP to warrant protection and they

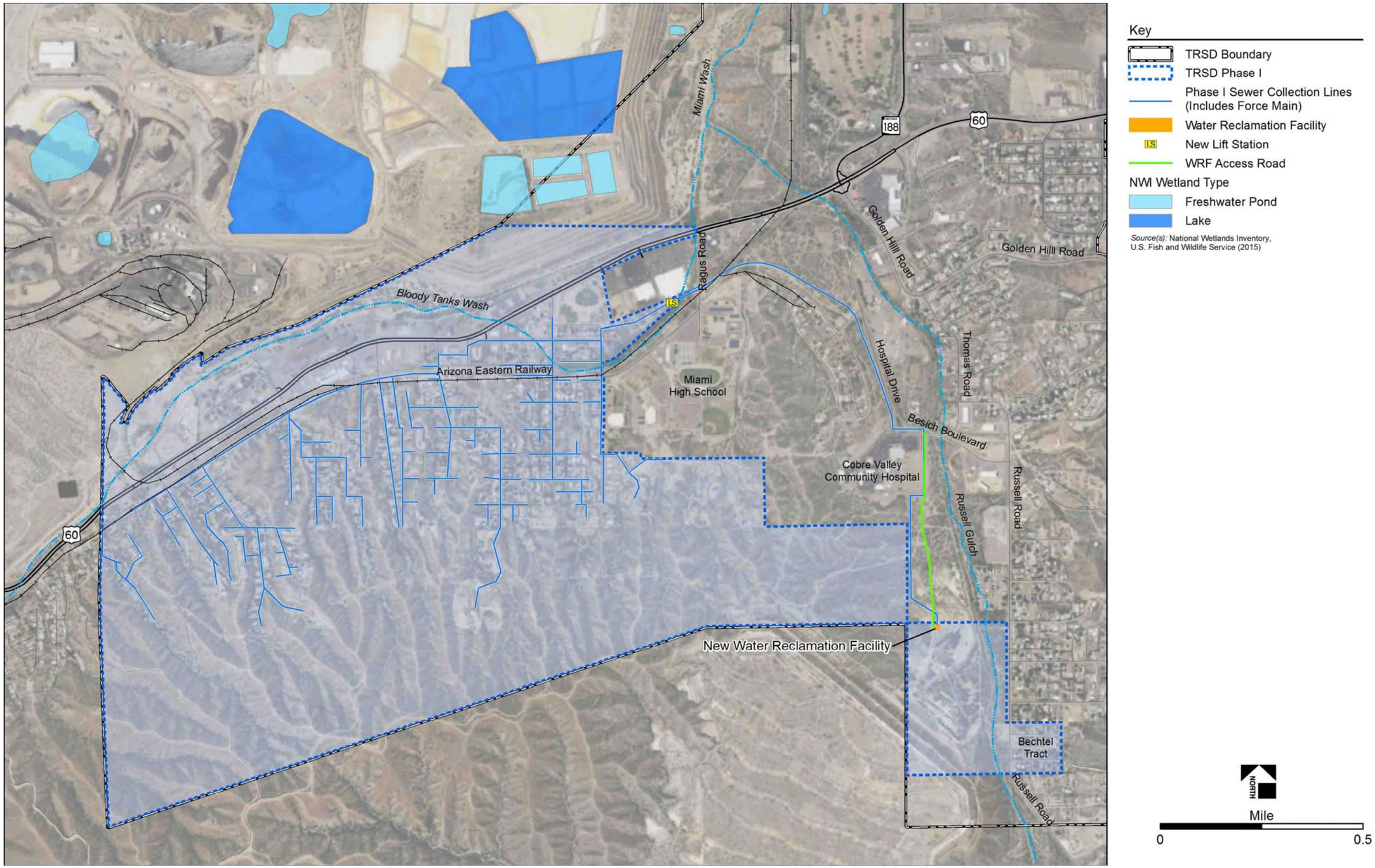

Figure 7. Wetlands

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commonly include prehistoric or historic districts, sites, buildings, structures, and landscapes (NPS 1995).

An area of potential effects (APE) has been designated for the Proposed Action and Miami WRF Conveyance Alternative within Phase I of the TRSD service area, which encompasses all potential construction alternatives of the project with some overlapping components, but does not include the entire Phase I area. Therefore, the APE for the two construction alternatives is smaller than the Phase I area and there are less cultural resources present within the APE compared to the entire Phase I area. The APE within the Proposed Action includes 11.73 miles of sewer pipeline and force main corridor; 0.59 acre for a new lift station; and a 59-acre parcel for the new WRF (the footprint of which would be approximately 20,000 square feet or 0.5 acre). The APE within the Miami WRF Conveyance Alternative includes the same wastewater collection components and lift station as the Proposed Action. Collected wastewater under the Miami WRF Conveyance Alternative would be conveyed to the existing Miami WRF located north of US 60, which would require the installation of an additional 0.8 miles for a force main between the new lift station and existing Miami WRF.

The entire TRSD service area (Phases I, II, and III) has been subject to a literature review to determine what previously recorded cultural resources are present within the area (Bryk and Davis 2015). Of the 26 sites and historic cultural structures located within the Phase I area, only 14 sites and/or structures have been recorded within the Proposed Action and Miami WRF Conveyance Alternative APE. The sites consist of prehistoric Hohokam artifact scatters and one possible habitation with masonry structures. The structures consist of the historic Arizona Eastern Railway and US 60. A Class III archaeological survey and reconnaissance building inventory also were conducted within the accessible areas of the APE (Howard 2017; Lewandowski et al. 2017). Access to the area proposed for a new lift station and force main to the Miami WRF for the Miami WRF Conveyance Alternative was not granted; therefore, that portion of the APE was not subject to a Class III survey or reconnaissance building inventory. A reconnaissance building inventory would not be necessary for the unsurveyed portions as no historic-age neighborhoods are present in the areas.

The reconnaissance building inventory involved driving through historic-age neighborhoods in the APE to assess the general characteristics of the buildings in the area, including architectural style, materials, alterations, and general condition. The purpose of the reconnaissance was to assess if a historic district potentially could be present in the APE; however, evaluation of individual properties would be beyond the scope of reconnaissance level survey. The results of archival research indicate that many buildings of historic age (i.e., at least 50 years old) are present, primarily consisting of residential properties within four historic-age subdivisions: Inspiration Townsite, Cobre Valley Townsite, Lower Miami, and East Miami Townsite (Lewandowski et al. 2017). Historic-age residential properties are important to the historical context and cultural landscape of the area. Residential and commercial development in the project area was largely a result of the need to provide local mine workers with housing and support services. The majority of the residences within or adjacent to the APE are of the American Territorial and Craftsman architectural styles. Features commonly associated with the American Territorial style include corner porches and pyramidal roofs. Craftsman style typically includes wide porches with heavy columns and large hipped roofs (McAlester and McAlester 2005).

A total of nineteen surveys have been completed within the Phase I TRSD service area. A list of the previously conducted survey reports are included in Appendix A. Additional cultural resources surveys and historic building surveys of Phases II and III of the TRSD service area boundary, would be conducted prior to construction activities in these areas and would be included in subsequent NEPA analyses.

3.4.2 Environmental Consequences

Proposed Action

The APE for the Proposed Action includes 11.73 miles of sewer pipeline and force main corridor, 0.59 acre for a new lift station, and a 59-acre parcel for the new WRF (the footprint of which would be approximately 20,000 square feet or 0.5 acre). Previous research resulted in the identification of six previously recorded archaeological sites (Hohokam artifact scatters) and one previously recorded historic structure (railroad) in or adjacent to the APE of the Proposed Action. Of the six previously recorded archaeological sites, one site could not be relocated within the portion of the Proposed Action APE during the Class III survey (AZ V:9:319[ASM]), leaving five sites and one structure within the Proposed Action APE. No new cultural sites were identified as a result of the Class III archaeological survey (Lewandowski et al. 2017 and Howard 2017). A summary of the five sites and one structure is presented below.

- AZ V:9:392(ASM)/The Arizona Eastern Railway, which has been previously determined eligible for inclusion in the NRHP under Criterion A, event, is the only historic structure in the APE of Proposed Action. The active railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action.
- AZ V:9:408(ASM), a prehistoric Hohokam artifact scatter from the Middle Formative period, A.D. 700–1150. The site is likely a habitation with associated agricultural fields. The site has been recommended eligible for inclusion in the NRHP under Criterion D, information potential. This site is located in the vicinity of the new WRF and would be avoided by construction activities associated with the Proposed Action.
- AZ V:9:646(ASM), a prehistoric Hohokam artifact scatter dating to the Middle Formative period, A.D. 750–1150. The site may represent a habitation. The site was recommended eligible for inclusion in the NRHP under Criterion D. This site is located in the vicinity of the proposed force main north of the new WRF and would be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing would be installed along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance. Limited monitoring would occur during construction in the vicinity of this site to ensure that buried cultural deposits are not present.
- AZ V:9:648(ASM), a prehistoric Hohokam and Salado artifact scatter dating to the Middle Formative and Late Formative periods, A.D. 750–1450. The site likely is a procurement and processing area with a possible farmstead. The site has been recommended eligible for inclusion in the NRHP under Criterion D. This site is located in the vicinity of the new WRF and would be avoided by construction activities associated with the Proposed Action.
- AZ V:9:652(ASM), a small prehistoric Hohokam artifact scatter that dates to the sedentary period, A.D. 950–1100. The site likely is a procurement and processing area. The current recording found a paucity of artifacts in contrast to the previous recording; therefore, the site remains unevaluated until the presence or absence of subsurface deposits is determined. This site is located in the vicinity of the new WRF and would be avoided by construction activities associated with the Proposed Action.

- AZ V:9:653(ASM), a prehistoric Hohokam artifact scatter that was not relocated during recent surveys due to access limitations. The site previously was recommended eligible for listing in the NRHP under Criterion D. This site is located in the vicinity of the proposed force main north of the new WRF and would be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing be installed along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance. Limited monitoring would occur during construction in the vicinity of this site to ensure that buried cultural deposits are not present.

In addition to the recorded archaeological sites and historic structure, four historic-age subdivisions were located in the Phase I area covered by the Class III survey. Three of the subdivisions (Cobre Valley Townsite, Lower Miami Subdivision, and East Miami Townsite) are recommended not eligible for inclusion in the NRHP due to extensive changes in the structures (Lewandowski et al. 2017). The Inspiration Townsite Subdivision in Claypool has been recommended eligible for inclusion in the NRHP under Criterion A at the local level of significance for its association with early residential development in Claypool, a suburb of the Miami-Globe mining district. The subdivision also is recommended eligible for inclusion in the NRHP under Criterion C for its association with workforce or "company" housing utilizing popular housing types within the Miami-Globe mining district. The proposed sewer collection lines would be located within the roads throughout these historic-age subdivisions.

Five recommended NRHP-eligible archaeological sites, one NRHP-eligible historic structure (railroad), and one NRHP-eligible historic district are located within or adjacent to the APE of the Proposed Action. The proposed force main and new WRF have been designed to avoid the archaeological sites. In addition, the Arizona Eastern Railway would be avoided by using a jack-and-bore method[8] to install wastewater collection lines without disturbing the ground surface or associated railroad features. Installation of the proposed sewer collection lines in the NRHP-eligible Inspiration Townsite Subdivision district would occur in either previously disturbed roadways or roadway ROW and would be below grade. The proposed lines would therefore not be visually or physically intrusive to any historic-age property in or adjacent to the district. Project activities would not impair the features and attributes that qualify the district for inclusion in the NRHP. With the implementation of the BMPs and mitigation measures, no impacts on historic properties or cultural resources would occur as a result of the Proposed Action.

Based on the above information, USDA-RD/RUS had determined that a finding of 'no adverse effect' is appropriate for the Proposed Action, and the SHPO concurred on February 22, 2018 (see Appendix B for all consultation letters). The SHPO agrees with the proposed avoidance measures and recommends that limited monitoring occur in the area between sites AZ V:9:653(ASM) and AZ V:9:646(ASM). USDA RD/RUS also consulted with the Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Navajo Nation, Pueblo of Zuni, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, and the Yavapai-Prescott Tribe in an effort to request information regarding traditional cultural places (TCPs) and sacred sites within the project area and to seek concurrence with the 'no adverse effect' determination (Appendix B). The Hopi Tribe concurred with the determination of effect on February 9, 2018 and offered no additional comments. The Tonto Apache Tribe concurred with the determination of effect on February 5, 2018 and offered no additional comments. The White Mountain Apache Tribe concurred with the determination of effect and noted that the project would not affect White Mountain Apache

[8] Jack-and-bore method of horizontal boring where construction crews drill a hole underground horizontally between two points without disturbing the surface between two vertical pits.

TCPs. The White Mountain Apache Tribe also indicated that ground-disturbing activities should be monitored if there is reason to believe human remains may be present. Responses were not received from the other tribes.

Best Management Practices

- Jack-and-bore method would be used to install wastewater collection lines under the Arizona Eastern Railway without disturbing the ground surface or associated railroad features.
- In the event that previously unreported cultural resources are encountered during ground disturbing activities, all work must immediately cease within 100 feet until a qualified archaeologist has documented the discovery and evaluated its eligibility for the NRHP in consultation with the USDA Rural Utilities Service, the Arizona State Historic Preservation Office (SHPO), and Tribes, as appropriate. Work must not resume in this area without approval of the USDA.
- If human remains are encountered during ground-disturbing activities, all work must immediately cease within 100 feet of the discovery and the area must be secured. The Arizona State Museum (ASM), USDA, SHPO, and appropriate Tribes must be notified of the discovery. All discoveries would be treated in accordance with NAGPRA (Public Law 101-601; 25 U.S.C. 3001-3013) or Arizona Revised Statutes (A.R.S. § 41-844 and A.R.S. § 41-865), as appropriate, and work must not resume in this area without authorization from ASM and the USDA.

Mitigation Measures

- Sites AZ V:9:646(ASM) and AZ V:9:653(ASM) shall be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing shall be installed by a qualified archaeologist along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance. An archaeological monitor would perform limited monitoring during ground-disturbing activities in the area between the two sites; this could consist of a monitoring observing activities for a brief time to ensure that cultural subsurface deposits are not present between the sites. This limited monitoring may occur the same day that avoidance fencing is installed.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative contains many of the same wastewater collection components as the Proposed Action, with the exception of the construction of the new WRF and the associated force main. The APE for this alternative would include the same wastewater collection components as the Proposed Action. Collected wastewater under this alternative would be conveyed to the existing Miami WRF located north of US 60, which would require the installation of an additional 0.8 miles for a force main between the new lift station and existing Miami WRF.

Previous archaeological investigations identified two archaeological sites and two historic structures in or adjacent to the APE of the Miami WRF Conveyance Alternative. The two sites were recorded previously and access restrictions did not allow for investigation during the Class III archaeological survey for this project. The following summarizes the two archaeological sites and two structures within and adjacent to the APE of the Miami WRF Conveyance Alternative:

- AZ V:2:101(ASM)/US 60, which previously has been determined eligible for inclusion in the NRHP under Criterion D, information potential, is a linear historic structure. The active roadway is crossed by the project north of the proposed lift station by the proposed force main. The

roadway is under continuous maintenance and would be avoided by construction activities associated with the Miami WRF Conveyance Alternative.

- AZ V:9:392(ASM)/The Arizona Eastern Railway, which previously has been determined eligible for inclusion in the NRHP under Criterion A, event, is a linear historic structure. The active railroad crosses the Miami WRF Conveyance Alternative multiple times. The sections of the railroad within the Phase I area consists of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Miami WRF Conveyance Alternative.
- AZ V:9:1(ASM), is a prehistoric pit house village that was excavated partially in the 1940s. Limited documentation is available for the site and the site was not relocated during recent surveys due to access limitations. This site has not been evaluated for inclusion in the NRHP. The site is located north of the proposed lift station along the proposed force main.
- AZ V:9:73 (ASM), is a 12- to 16-room pueblo with a high density of artifacts. It originally was recorded in the 1970s and was not relocated during recent surveys due to access limitations. This site has not been evaluated for inclusion in the NRHP; however, it likely is eligible. The site is located at the northern end of the proposed lift main near the existing Miami WRF.

Similar to the Proposed Action, the four historic subdivisions also are located in the Miami WRF Conveyance Alternative area covered by the Class III survey. Three of the subdivisions (Cobre Valley Townsite, Lower Miami Subdivision, and East Miami Townsite) are recommended not eligible for inclusion in the NRHP due to extensive changes in the structures (Lewandowski et al. 2017). The Inspiration Townsite Subdivision in Claypool, Arizona has been recommended eligible for inclusion in the NRHP under Criterion A at the local level of significance for its association with early residential development in Claypool, a suburb of the Miami-Globe mining district. The subdivision also is recommended eligible for inclusion in the NRHP under Criterion C for its association with workforce or “company” housing utilizing popular housing types within the Miami-Globe mining district. The sewer collection lines would be located within the roads throughout these historic-age subdivisions.

Two NRHP-unevaluated archaeological sites, two NRHP-eligible historic structures (US 60 and the railroad), and one NRHP-eligible historic district are located within or adjacent to the APE of the Miami WRF Conveyance Alternative. The Arizona Eastern Railway and US 60 would be avoided by using a jack-and-bore method to install wastewater collection lines without disturbing the ground surface or associated historic features. Installation of sewer collection lines in the NRHP-eligible Inspiration Townsite Subdivision district would occur in either previously disturbed roadways or roadway ROW, would be below grade, and therefore would not be visually or physically intrusive to any historic-age property in or adjacent to the district. The Miami WRF Conveyance Alternative would not impair the features and attributes that qualify the district for inclusion in the NRHP. The area containing the two archaeological sites in the vicinity of the proposed force main were not surveyed for cultural resources during this project due to access restrictions by the land owner. Negotiations with the land owner to acquire access to investigate the reported archaeological sites would be required to assess project impacts and effects to those two resources.

The Miami WRF Conveyance Alternative has the potential to cause an adverse effect to cultural resources, if the two known and any potential new sites could not be avoided. If the Miami WRF Conveyance Alternative is selected for construction and operation and NRHP-eligible sites cannot be avoided, a Historic Properties Treatment Plan and Memorandum of Agreement (MOA) would be

required, which would require additional time, coordination, and expense, as compared to Proposed Action.

While no indirect impacts on historic properties or cultural resources were identified, the Miami WRF Conveyance Alternative would result in a short- and long-term direct negligible adverse impacts once the two archaeological sites along the proposed force main are relocated and surveys of the remaining unsurveyed areas are completed.

Best Management Practices

- In the event that previously unreported cultural resources are encountered during ground disturbing activities, all work must immediately cease within 100 feet until a qualified archaeologist has documented the discovery and evaluated its eligibility for the NRHP in consultation with the USDA Rural Utilities Service, the SHPO, and Tribes, as appropriate. Work must not resume in this area without approval of the USDA.
- If human remains are encountered during ground-disturbing activities, all work must immediately cease within 100 feet of the discovery and the area must be secured. The ASM, USDA, SHPO, and appropriate Tribes must be notified of the discovery. All discoveries would be treated in accordance with NAGPRA (Public Law 101-601; 25 U.S.C. 3001-3013) or Arizona Revised Statutes (A.R.S. § 41-844 and A.R.S. § 41-865), as appropriate, and work must not resume in this area without authorization from ASM and the USDA.

Mitigation Measures

- The vicinity of the proposed force main would need to be surveyed for cultural resources and attempts to relocate two archaeological sites would be necessary prior to construction to assess project impacts and effects to those two resources as well as identify any new resources. If the two known NRHP-eligible sites cannot be avoided by project construction activities, a Historic Properties Treatment Plan and MOA for the treatment of cultural resources would be required prior to construction.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer system and WRF would not occur, and residents within the Phase I area would continue to use existing individual septic systems. No direct or indirect impacts on cultural resources or historic properties would occur under the No Action Alternative.

3.5 Visual Resources

3.5.1 Affected Environment

The term “visual resources” refers to the composite of basic terrain, geologic, and hydrologic features, vegetative patterns, and built features that influence the visual appeal of a landscape.

Visual resources in the region are a function of geology, climate and historical processes, and are influenced by topographic relief, vegetation, water, and land use activities. Human uses and activities adjacent to and within the Phase I area, also influence the overall visual character and visual quality of the area. Uses and activities that dominate the visual setting of the Phase I area include open pit mining, commercial and industrial land uses, urban infrastructure (streets, overhead transmission lines, lighting, and signage) and residential development. The pattern of the existing infrastructure and

residential and commercial development is strongly influenced by the numerous ephemeral drainages running generally in a north-south direction in between small, rounded ridges covered by spare, open vegetation. These ephemeral drainages expose light colored soils. Vegetation within the Phase I area is sparse and generally consists of low stature shrubs with isolated and dispersed trees. Views from the Phase I area are of the surrounding foothills of the Pinal Mountains and other notable landforms including the Gerald Hills, Webster Mountains, and the mine-related modified landforms.

The built architectural structures within the Phase I area consists of a variety of materials, styles, and colors. Residential structures are generally one-story with a mixture of shrubs and evergreen and deciduous trees planted adjacent to the buildings. The majority of the residences within the Phase I area are located within the drainages between the ridgelines. The commercial buildings are typically one-story block structure with parking and signage in front of the business.

The overall scenic quality value of the landscape within the Phase I area is relatively low because there are no unifying elements or patterns to create a cohesive or memorable visual setting. There are also numerous discordant built features present that distract and draws attention away from the natural features within and adjacent to the Phase I area.

3.5.2 Environmental Consequences for Visual Resources

Proposed Action

The proposed sewer lines, force main sewer lines, and lateral service connections would be located beneath previously disturbed areas within the Phase I area. The parcel of land selected for the proposed WRF was previously disturbed during mining activities and is primarily undeveloped with minimal vegetation. Visual impacts associated with construction activities would include earth-moving activities, the presence of construction equipment, and the removal of existing vegetation, and increased dust that would subtly lower visibility. Adding treated effluent to Russell Gulch may result in indirect beneficial impacts with the potential to increase vegetation growth and habitat establishment over the long-term. In addition, long-term, indirect impacts may result as the improved service would provide increased opportunity for adaptive reuse of vacant or deteriorating properties. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, short-and long-term, direct, negligible, adverse impacts on visual resources and indirect, negligible beneficial impacts.

Best Management Practices

- The contractor would be required to minimize the amount of vegetation clearing and would avoid damaging vegetation that is to remain in place (outside the approved clearing limits).
- Vegetation designated to remain in place would be protected and avoided through fencing, flagging, marking or other approved methods.
- Straight line clearing would be avoided by varying the width of the area to be cleared or by leaving selected clumps of vegetation, rock formations, and/or boulders near the edge of the clearing limit. This would create a naturally appearing vegetative border in cut areas.
- The contractor would be required to restore the areas affected by ground-disturbing activities to conditions deemed acceptable by TRSD.

- Low-profile structures would be designed, whenever possible, to reduce their visibility and they would be painted an appropriate color for the landscape or setting in order to reduce their visual contrast.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would contain many of the same wastewater collection components as the Proposed Action, and the potential short-term construction impacts on visual resources would be similar, with the exception of the development of the new WRF and discharge to Russell Gulch. Therefore, with the implementation of the following BMPs, the Miami WRF Conveyance Alternative would have localized, short-and long-term, direct, negligible, adverse impacts on visual resources and indirect, negligible beneficial impacts.

Best Management Practices

- The contractor would be required to minimize the amount of vegetation clearing and would avoid damaging vegetation that is to remain in place (outside the approved clearing limits).
- Vegetation designated to remain in place would be protected and avoided through fencing, flagging, marking or other approved methods.
- Straight line clearing would be avoided by varying the width of the area to be cleared or by leaving selected clumps of vegetation, rock formations, and/or boulders near the edge of the clearing limit. This would create a naturally appearing vegetative border in cut areas.
- The contractor would be required to restore the areas affected by ground-disturbing activities to conditions deemed acceptable by TRSD.
- Low-profile structures would be designed, whenever possible, to reduce their visibility and they would be painted an appropriate color for the landscape or setting in order to reduce their visual contrast

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of the municipal sewer system and WRF would not occur and residents within the Phase I area would continue to use existing individual septic systems and cesspools. The potential for septic tanks to back up or fail would continue and the vacant and deteriorating properties would remain and potentially increase over time. Therefore, the No Action Alternative would have localized, long-term, direct and indirect, negligible, adverse impacts and no short-term, direct impacts on visual resources.

3.6 Biological Resources

Topics considered under biological resources include vegetation, and fish and wildlife resources.

3.6.1 Affected Environment

The Phase I area has largely been developed for residential, industrial, and commercial uses, and exhibits highly disturbed terrestrial habitat. Mining operations in the general project vicinity have resulted in additional alteration of the landscape and habitat of the area. No perennial water occurs in the vicinity of or within the Phase I area, and no aquatic species are anticipated to be present.

3.6.1.1 Vegetation

The Phase I area occurs within the Semidesert Grassland biotic community (Brown 1994), which is typically characterized by the presence of perennial grasses in an otherwise scrub-dominated landscape. Stem and leaf succulents are also well represented. Vegetation in this particular area is transitional, with many plant species present that are more indicative of lower-elevation desertscrub communities and higher-elevation chaparral communities. There is a general lack of native vegetation within most of the Phase I area, as the proposed improvements are primarily located within previously disturbed urban areas such as roadway ROWs.

Vegetation within the Phase I area includes non-native landscaped plants in residential and commercial frontages, as well as non-native invasive species within the roadway rights-of-ways. Plant species observed throughout the project limits during a site reconnaissance visit include desert broom (*Baccharis sarothroides*), velvet mesquite (*Prosopis velutina*), oaks (*Quercus* spp.), junipers (*Juniperus* spp.), catclaw acacia (*Senegalia greggii*), desert spoon (*Dasylirion wheeleri*), rabbitbrush (*Ericameria nauseosa*), foothills paloverde (*Parkinsonia microphylla*), blue paloverde (*Parkinsonia Florida*), tree-of-heaven (*Ailanthus altissima*), and Russian thistle (*Salsola tragus*).

Protected Native Plants

The Arizona Native Plant Law (Arizona Revised Statute Title 3, Chapter 7), identifies protected native plants and prohibits removal until proper notification is provided to the Arizona Department of Agriculture. Protected native plants observed during the site visit include, but are not limited to, foothills and blue paloverde, soaptree yucca (*Yucca elata*), and velvet mesquite. Additional protected native plant species that may be in the Phase I area include all cactus species, yucca (*Yucca* spp.), and agave (*Agave* spp.).

3.6.1.2 General Fish and Wildlife Resources

Fauna typically occurring in the biotic community associated with the project area include black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus auduboni*), brush mouse (*Peromyscus boylii*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), common raven (*Corvus corax*), scaled quail (*Callipepla squamata*), roadrunner (*Geococcyx californianus*), mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), black-chinned sparrow (*Spizella atrogularis*), and lark sparrow (*Chondestes grammacus*).

3.6.1.3 Federally Listed Species

Federally listed species are those plant and animal species listed as threatened or endangered under the Endangered Species Act (ESA) of 1973 as amended (16 U.S.C. 1531 et seq., U.S. Congress 1973). Proposed and candidate species are those being considered for listing as threatened or endangered. These species may be rare because of specialized habitat needs or due to threats such

as habitat destruction or climate change. The ESA defines “endangered” as any species that is in danger of extinction throughout all or a significant portion of its range. The ESA defines “threatened” as any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The ESA makes it unlawful to harm, kill, wound, harass, remove, reduce, or to possess a listed species.

To comply with the requirements of the ESA, a field visit and biological evaluation (BE) (Appendix C) were completed to identify threatened and endangered species with the potential to occur within the vicinity of the Phase I area. The USFWS and Arizona Game and Fish Department (AGFD) were contacted to obtain species lists during the preparation of the BE. Based on information available in the USFWS’s Information, Planning, and Conservation decision support system, seven species were determined to have some potential to occur within the project vicinity. Table 2 identifies the seven federally threatened, endangered, and candidate species on the USFWS species list for the Phase I area. Due to the high level of urban disturbance, it was determined that none of the species on the USFWS list have suitable habitat within the Phase I area.

Table 1. USFWS Species Excluded from Further Evaluation and Exclusion Justification

Species	Status[a]	Exclusion Justification
Southwestern willow flycatcher (*Empidonax traillii extimus*)	ESA LE	No suitable habitat present (e.g., riparian areas) in the project area.
Yellow-billed cuckoo (*Coccyzus americanus*)	ESA LT	No suitable habitat present (e.g., riparian areas) in the project area.
Headwater chub (*Gila nigra*)	ESA PT	No suitable habitat present; there are no aquatic habitats (e.g., rivers or streams) present in the project area.
Roundtail chub (*Gila robusta*)	ESA PT	No suitable habitat present; there are no aquatic habitats (e.g., rivers or streams) present in the project area.
Northern Mexican gartersnake (*Thamnophis eques megalops*)	ESA LT	No suitable habitat present; there are no aquatic or streamside habitats in the project area.
Gray wolf (*Canis lupus*)	ESA PXN	No suitable habitat present; this species does not occur in urban areas with high levels of human activity.
Ocelot (*Leopardus pardalis*)	ESA LE	No suitable habitat present; this species does not occur in urban areas with high levels of human activity.

Source: USFWS’s IPaC decision support system (accessed June 5, 2017; Consultation Code: 02EAAZ00-2017-SLI-0188)

[a] Status Definitions: LE=Listed Endangered; LT=Listed Threatened; PT=Proposed Threatened; PXN=Proposed Experimental Non-Essential Population

3.6.1.4 Migratory Birds

Migratory birds that may be present within the Phase I area are protected under the Migratory Bird Treaty Act of 1918 (MBTA) (16 U.S.C. 703-712, as amended). Bald and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act of 1940 (BGEPA) (16 U.S.C. 668-668d, as amended).

The USFWS has statutory authority and responsibility for enforcing the MBTA which prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests (USFWS 1918). Species covered under the MBTA are all native species. Some common species covered under the MBTA that may be found within the Phase I area include: red-tailed hawk (*Buteo jamaicensis*), Costa's hummingbird (*Calypte costae*), gray vireo (*Vireo vicinior*), and loggerhead shrike (*Lanius ludovicianus*). Any person or organization that plans or conducts activities that may result in the

take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

The BGEPA provides protection to bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting take, possession, and commerce of these birds. There are records of both bald and golden eagles in Gila County; however, no suitable habitat for bald or golden eagles was observed in the Phase I area during the site visit.

3.6.2 Environmental Consequences for Biological Resources

3.6.2.1 Vegetation

Proposed Action

There would be clearing of trees and shrubs in the areas of sewer line installation and the proposed WRF within the Proposed Action. Vegetation cover similar to current levels would reestablish relatively quickly after construction has been completed. Protected native plants (i.e., foothill paloverde and velvet mesquite trees) were observed in the Phase I area. Although native plants may be disturbed during construction, the number of plants that may be removed would not be detrimental to the overall population of native plants present in the vicinity of the Phase I area. Discharging treated wastewater into Russell Gulch may result in indirect impacts with the potential increased vegetation growth over the long-term. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, short- and long-term, direct, negligible, adverse impacts and indirect, negligible beneficial impacts on vegetation.

Best Management Practices

- Surveys for protected native plants should be conducted prior to commencement of proposed project activities to ensure compliance with the Arizona Native Plant Law. TRSD would notify the Arizona Department of Agriculture regarding the destruction or removal of plants protected under the Arizona Native Plant Law. In accordance with the Arizona Native Plant Law, TRSD would ensure that a Notice of Intent to Clear Land is submitted to the Department of Agriculture prior to any vegetation clearing activities.
- Minimize vegetation removal in areas with native vegetation, wherever possible, to reduce impacts on native vegetation and the habitat it may provide for wildlife species.
- The contractor would be required to minimize the amount of vegetation clearing and avoid damaging vegetation that is to remain in place. In addition, the contractor would be required to restore the areas affected by ground-disturbing activities to conditions deemed acceptable by the TRSD.
- All unpaved, disturbed soils that would not be landscaped or otherwise permanently stabilized by construction should be seeded using species native to the project vicinity.
- To prevent the introduction of invasive species seeds, all hauling and construction equipment should be washed at the contractor's storage facility. All vehicles and equipment should be free of all attached soil, mud, vegetation and other debris.

- To prevent invasive-species seeds from leaving the site, the contractor should inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would have many of the same wastewater collection components as the Proposed Action with the exception of that there would be discharge to Russell Gulch. With the diversion of the wastewater for treatment entirely to the Miami WRF, the short-term construction impacts of the proposed WRF would not occur. Vegetation cover similar to present levels would be reestablished. Although direct effects on native plants may occur during construction, the number of plants that may be removed would not be detrimental to the overall population of native plants present in the vicinity of the Phase I area. Therefore, with the implementation of the following BMPs, the Miami WRF Conveyance Alternative would have localized, short-and long-term, direct and indirect, negligible, adverse impacts on vegetation.

Best Management Practices

- Surveys for protected native plants should be conducted prior to commencement of proposed project activities to ensure compliance with the Arizona Native Plant Law. TRSD would notify the Arizona Department of Agriculture regarding the destruction or removal of plants protected under the Arizona Native Plant Law. In accordance with the Arizona Native Plant Law, TRSD would ensure that a Notice of Intent to Clear Land is submitted to the Department of Agriculture prior to any vegetation clearing activities.
- Minimize vegetation removal in areas with native vegetation, wherever possible, to reduce impacts on native vegetation and the habitat it may provide for wildlife species.
- The contractor would be required to minimize the amount of vegetation clearing and avoid damaging vegetation that is to remain in place. In addition, the contractor would be required to restore the areas affected by ground-disturbing activities to conditions deemed acceptable by the TRSD.
- All unpaved, disturbed soils that would not be landscaped or otherwise permanently stabilized by construction should be seeded using species native to the project vicinity.
- To prevent the introduction of invasive species seeds, all hauling and construction equipment should be washed at the contractor's storage facility. All vehicles and equipment should be free of all attached soil, mud, vegetation and other debris.
- To prevent invasive-species seeds from leaving the site, the contractor should inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and WRF would not occur, and residents within the Phase I area would continue to use individual septic systems and cesspools. No impacts on vegetation would occur under the No Action Alternative.

3.6.2.2 General Fish and Wildlife Resources

Proposed Action

Under the Proposed Action, installation of a municipal sewer collection system and construction of a new WRF would occur and individual septic systems would be abandoned. Wildlife would no longer be at risk of occasional exposure to untreated and improperly treated wastewater discharged into properties within the Phase I area. Short-term disturbance to wildlife and to surrounding habitat during construction could lead to temporary avoidance by species. Impacts to general wildlife habitat would not be measureable because of the abundance of habitat available in the vicinity of the Phase I area. There would be no impacts to fish species or their aquatic habitat since there is no perennial waterbodies within the Phase I area. Adding treated effluent to Russell Gulch may result in indirect impacts with the potential to increase vegetation growth and habitat establishment over the long-term. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, short- and long-term, direct, negligible, adverse impacts and short- and long-term, indirect, negligible, beneficial impacts on general wildlife and no impact on fish species.

Best Management Practices

- Habitat loss would be minimized by clearing the smallest amount of vegetation necessary to construct the project. Any trenches left open overnight would have a 1:1 (horizontal: vertical) slope at each end to allow wildlife to easily exit the trench.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would contain many of the same wastewater collection components as the Proposed Action, and the potential impacts associated with construction would be similar, including the installation of the force main between the lift station and Miami WRF. With the diversion of the wastewater for treatment entirely to the Miami WRF, the short-term construction impacts associated with the proposed WRF would not occur. Wildlife would no longer be at risk of occasional exposure to untreated and improperly treated wastewater discharged into properties within the Phase I area. Impacts to general wildlife habitat would not be measureable because of the abundance of habitat available in the vicinity of the Phase I area. There would be no impacts to fish species or their aquatic habitat since there is no perennial waterbodies within the Phase I area. Therefore, with the implementation of the following BMPs, the Miami WRF Conveyance Alternative

would have localized, short- and long-term, direct and indirect, negligible, adverse impacts on general wildlife and no impact on fish species.

Best Management Practices

- Habitat loss would be minimized by clearing the smallest amount of vegetation necessary to construct the project. Any trenches left open overnight would have a 1:1 (horizontal: vertical) slope at each end to allow wildlife to easily exit the trench.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and WRF would not occur, and residents within the Phase I area would continue to use individual septic systems and cesspools. Septic tank back-up or failure has previously resulted in the release of untreated wastewater. Wildlife would continue to be at risk from occasional exposure to untreated and improperly treated wastewater, which could result in sick, diseased, or mortality for individuals. There would be no impacts to fish species or their aquatic habitat since there is no perennial waterbodies within the Phase I area. Therefore, the No Action Alternative would have localized, short- and long-term, direct and indirect, minor, adverse impacts on general wildlife and no impact on fish species.

3.6.2.3 Federally Listed Species

Proposed Action

The Proposed Action would have no effect on any federally listed species because there is no suitable habitat within the Phase I area for any of the seven species identified with the potential to occur within the vicinity. No coordination with the USFWS would be necessary. Therefore, the Proposed Action would no impact on federally listed species or their habitat.

Best Management Practices

None identified.

Mitigation Measures

No mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would have no effect on any federally listed species because there is no suitable habitat within the Phase I area for any of the seven species identified with the potential to occur within the vicinity. No coordination with the USFWS would be necessary. Therefore, the Miami WRF Conveyance Alternative would no impact on federally listed species or their habitat.

Best Management Practices

None identified.

Mitigation Measures

No mitigation measures are recommended for the Proposed Action.

No Action Alternative

The No Action Alternative would have no effect on any federally listed species because there is no suitable habitat within the Phase I area for any of the seven species identified with the potential to occur within the vicinity. Therefore, the No Action Alternative would no impact on federally listed species or their habitat.

3.6.2.4 Migratory Birds

Proposed Action

The construction of the Proposed Action would not likely affect migratory birds because of the short duration of these activities. The construction workers may temporarily displace birds present in the Phase I area. If birds are active during construction activities, workers and their vehicles and/or equipment would create noise and visual disturbances that may cause birds to flush and leave the immediate area. Some ground nests and nests in and on cacti, sapling trees, and shrubs may occur in the Phase I area, and small numbers of undetected nests could be at risk from temporary disturbance while crews are constructing the Proposed Action. The construction of the Proposed Action would not alter the availability of prey populations. Prey species such as small mammals may be affected by disturbance if their range is restricted to certain microhabitats. However, many small mammals live in burrows where they can retreat during disturbance by vehicles, equipment noise, and construction workers. Direct contact with migratory birds would be unlikely due to their ability of flight. Therefore, with the implementation of the following BMPs, the Proposed Action would result in short- and long-term, direct and indirect, negligible, adverse impacts to migratory birds.

Best Management Practices

None identified.

Mitigation Measures

- If clearing activities are scheduled during migratory bird breeding season (March 1 to August 31), the Contractor shall have a qualified biologist conduct a field survey to flag active bird nests to be avoided. TRSD's contractor would avoid and maintain a 20-foot buffer around any active bird nests. If the active nests cannot be avoided, the contractor should notify an approved and qualified biologist to evaluate the situation.

Miami WRF Conveyance Alternative

The construction of the Miami WRF Conveyance Alternative would have similar impacts on migratory birds as the Proposed Action. The construction workers may temporarily displace birds present in the Phase I area. If birds are active during construction activities, workers and their vehicles and/or equipment would create noise and visual disturbances that may cause birds to flush and leave the immediate area. Some ground nests and nests in and on cacti, sapling trees, and shrubs may occur in the Phase I area, and small numbers of undetected nests could be at risk from temporary disturbance while crews are constructing the Proposed Action. The construction of the Miami WRF Conveyance Alternative would not alter the availability of prey populations. Prey species such as small mammals

may be affected by disturbance if their range is restricted to certain microhabitats. However, many small mammals live in burrows where they can retreat during disturbance by vehicles, equipment noise, and construction workers. Direct contact with migratory birds would be unlikely due to their ability of flight. Therefore, with the implementation of the following BMPs, the Miami WRF Conveyance Alternative would result in short- and long-term, direct and indirect, negligible, adverse impacts to migratory birds.

Best Management Practices

None identified.

Mitigation Measures

- If clearing activities are scheduled during migratory bird breeding season (March 1 to August 31), the Contractor shall have a qualified biologist conduct a field survey to flag active bird nests to be avoided. TRSD's contractor would avoid and maintain a 20-foot buffer around any active bird nests. If the active nests cannot be avoided, the contractor should notify an approved and qualified biologist to evaluate the situation.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and WRF would not occur, and residents within the Phase I area would continue to use individual septic systems and cesspools. No impacts on migratory birds would occur under the No Action Alternative.

3.7 Water Resources

Topics considered under water quality include surface water and groundwater.

3.7.1 Affected Environment

Water quality issues are those that relate to surface or groundwater resources, discharges from wastewater treatment or solid waste facilities, groundwater protection programs (sole-source aquifers and recharge areas), and water quality degradation from temporary construction activities. Water quality in the U.S. is regulated under the Clean Water Act (CWA). The CWA establishes structure for regulating quality standards for surface waters and requires states to set standards to protect water quality, including regulation of stormwater and wastewater discharges during construction and operation of a facility. This is accomplished through the establishment of numerous monitoring, permitting, and funding programs that work with one another to provide a mechanism for protecting water quality in the US. The CWA regulates point source pollution through the National Pollutant Discharge Elimination System permitting program. Section 404 of the CWA protects areas vital to surface water, namely wetlands, and regulates dredging, filling, or otherwise altering wetland habitat or waters of the US, which are under the jurisdiction of the U.S. Army Corps of Engineers.

The TRSD service area is located within the Central Arizona Governments (CAG) regional planning district, established to provide effective regional planning services to Gila and Pinal counties. The CAG currently has several plans and strategies in place, including the *Section 208 Water Quality Management Plan* (CAG 2016), which is a regional water quality plan developed under Section 208 of the CWA. The plan constitutes an agreement between CAG, entities operating wastewater utilities within the region, ADEQ and EPA to implement strategies and processes to protect water quality (CAG 2016).

3.7.1.1 Surface Water

The Phase I area is within the Upper Salt River watershed. The two principal drainages in the Phase I area are Bloody Tanks Wash and Russell Gulch, which are ephemeral[9] drainages that flow northwest to Pinal Creek, a tributary of the Salt River (Figure 4). Several smaller ephemeral drainages occur within the Phase I area, draining into Bloody Tanks Wash. Ephemeral drainages receive flow from heavy precipitation and snowmelt and are not recharged by groundwater. The majority of precipitation occurs during the months of July and August. Some surface water may seep through to groundwater, but it is typically dissipated by runoff and evaporation. No perennial streams (continuously flowing) were identified in the Phase I area and no unique, impaired, or non-attaining waters are located in or near the project area.

Stormwater refers to water runoff from either pervious or impervious surfaces as the result of rain or snow. Stormwater can capture chemicals, sediment, and general debris and transport them to adjacent waterbodies. Stormwater pollution can originate from many sources including water runoff from parking lots, residential areas, industrial facilities, construction projects, streets, and various urban areas. In the project area, stormwater is conveyed by naturally occurring ephemeral drainages, some of which have been manipulated and paved with streets and curbs.

3.7.1.2 Groundwater

In the Salt River Lakes sub-basin of the Salt River groundwater basin that occupies the portion of Gila County in the general vicinity of the project area, unconsolidated sands and gravels within the floodplains of streams and washes form an alluvial aquifer (Arizona Department of Water Resources [ADWR] 2010). In the Globe-Miami area, most of the area's municipal and industrial water supply comes from the Gila conglomerate that forms a local aquifer (ADWR 2010). Groundwater in the area is located at a depth of 15 to 30 feet (ADWR 2010). Water is also supplied to the Globe-Miami area by a limestone aquifer and small basin-fill deposits forming isolated groundwater aquifers. Mining activities in the vicinity of the project area have impacted water quality in the alluvial aquifer along Miami Wash and Pinal Creek, consisting of elevated concentrations of metals and sulfate (ADWR 2010).

Groundwater contamination has been identified within the proposed project area associated with the Pinal Creek Water Quality Assurance Revolving Fund (WQARF) site. This WQARF site follows the floodplains of Bloody Tanks Wash and Russell Gulch, to their confluence with Pinal Creek. The ADEQ WQARF program investigates and cleans up contaminated soil sites and groundwater across the state (ADEQ 2017a). The primary pollutant concerns are waste rock from nearby mining activities and heavy metals from acid-metal runoff from tailings (ADEQ 2012). Contamination is also found in the alluvial aquifer of Bloody Tanks Wash-Miami Wash-Pinal Creek, in the regional Gila conglomerate aquifer (ADEQ 2010). Groundwater from the alluvial aquifer is generally not used because it is contaminated. Water provided by the American Water Company or the City of Globe to the residents of Miami, Globe, and Claypool comes from the Gila conglomerate aquifer outside of the boundaries of the WQARF site and is tested to ensure it meets all state and federal drinking water standards (ADEQ 2010). Cleanup of the Pinal Creek WQARF site resulting from decades of mining contamination is ongoing.

The existing residential treatment systems, consisting of cesspools and septic systems, currently used for wastewater disposal within the TRSD service area have generated concerns about the quality of groundwater in the area. Many of the septic systems in use have been improperly maintained and/or

[9] Ephemeral streams are typically shallow and only have flowing water for brief periods in response to rainfall; they are normally dry for most of the year (Wetlands Professional Services 2017).

were poorly located and improperly designed and installed, resulting in discharge of untreated wastewater and pollutants (e.g., nitrogen) into the environment, ultimately affecting groundwater (PACE 2017).

The majority of wastewater disposal within the TRSD service area is facilitated through individual treatment systems for residences and some businesses. Although these systems can adequately treat wastewater, the lack of proper maintenance can result in the release of improperly treated or untreated wastewater into the environment. The on-site treatment systems are discussed in further detail in the draft Preliminary Engineering Report (PACE 2017).

Both Globe and Miami have municipal wastewater collection and treatment systems for the areas under their jurisdiction. FMI recently completed construction of a new WRF for the Town of Miami that nearly doubles the treatment capacity from the previous wastewater system. Treated wastewater from the Miami WRF meets all EPA and ADEQ standards, and treated effluent is used by FMI for mining operations and golf course irrigation, as well as to replenish the aquifers. The Pinal Creek Wastewater Treatment Facility receives domestic wastewater from residential and commercial sources in Globe. Treated wastewater from this facility is discharged into Pinal Creek and the Salt River Basin and meets all EPA and ADEQ standards (City of Globe 2011).

3.7.2 Environmental Consequences

3.7.2.1 Surface Water

Proposed Action

Waters of the United States are regulated by the U.S. Army Corps of Engineers under Section 404 of the CWA. In small segments of the Phase I area, installation of the sewer collection system would involve the need to cross named drainages and other potential waters of the US. Design features would be included to implement strategies to minimize potential impacts and reduce the disturbance areas. For potential crossings, jack and bore construction activities within jurisdictional waters of the United States. This would be necessary where there are existing roadway crossings of the two previously named drainages and several additional ephemeral washes. It is not anticipated that disturbance in these areas would exceed the 0.5-acre threshold allowed for at each crossing under a Section 404 Nationwide Permit Number 12 (Utility Line Activities). All construction activities would comply with the terms and conditions of the Section 404 Permit and Section 401 Water Quality Certification.

To comply with the terms and conditions of these permits, discharges of fill or dredged material (including all earthwork activities, such as clearing, grading, filling, and excavating) into watercourses would be minimized or avoided to the maximum extent practicable. Fill or dredged material would not involve the use of unsuitable material or pollutants in toxic amounts. In addition, no excess concrete, curing agents, formwork, loose embankment materials, or fuel would be disposed of within the project area. Additionally, vegetation cover similar to present levels would be reestablished relatively quickly reducing the potential for soil erosion and increased sedimentation.

Grading and development can increase runoff from undisturbed lands. The Proposed Action would include construction activities on both disturbed and undisturbed areas within the TRSD Phase I service area. The sewer collection lines would be generally located within a disturbed roadway ROW, below ground level, and would be backfill and compacted to the existing grade level. Surface cover would be replaced to pre-construction conditions. The new lift station would be approximately 20-feet by 20-feet

and located on a portion of the existing disturbed WalMart property. The new WRF would include the development of less than one acre of undeveloped area on the newly acquired 59-acre parcel. With the construction of the new collection system, lift station, and new WRF, more than one acre of land would be disturbed, therefore an AZPDES permit for construction activities would be required. As part of the AZPDES permit, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented, which would minimize potential sediment transport by requiring the use of stormwater and erosion control BMPs.

Approximately 200,000 gpd of Class A+ effluent is proposed for discharge to Russell Gulch; located approximately 500 feet east of the proposed WRF. The location of the discharge infrastructure would be determined during final design and in coordination with BHP. Russell Gulch is a tributary of Pinal Creek and it is anticipated that the 200,000 gpd discharge of reclaimed water to Russell Gulch would contribute to surface flow, thereby improving the ongoing clean-up efforts of the Pinal Creek WQARF site. The additional daily flows may help move contaminants in the drainageway downstream towards the WQARF water treatment plant, contributing to the overall environmental clean-up of the region. The addition of 200,000 gallons of daily surface flow to Russell Gulch may also result in the ponding of water and establishment of wetlands and/or wildlife habitat downstream of the WRF.

As the TRSD Phase I service area is connected to a sewer collection system rather than individual septic tanks, more land has the potential for developed which may result in additional impervious surfaces and potential runoff. An increase in runoff affects surrounding property as well as downstream properties. Gila County has developed a Grading and Drainage Ordinance (Number 08-01) to promote the public health, safety, and general welfare, and to minimize public and private losses by regulating grading and drainage of all land within the unincorporated area of Gila County, Arizona. The Proposed Action would require obtaining a grading permit from the Gila County Public Works Director or designee. In addition, construction impacts would be confined to the minimum area necessary to complete the project.

As part of the project, TRSD would prepare an amendment to the CAG Section 208 Water Quality Management Plan. This amendment would include an administrative change to identify TRSD as the Designated Management Agency (DMA) covering the areas of the former Cobre Valley Sanitary District and Pinal Sanitary District, which merged to form the TRSD in 2011. ADEQ has formally identified this designation in a 2016 letter (Appendix B). Additionally, TRSD would be required to add the plans for the new WRF in this amendment and would outline the proposed service area for the treatment facility, including a description of the phasing and future expansion that would encompass the entire TRSD service area at full buildout. Once specific design plans for the WRF have been developed, TRSD would coordinate with ADEQ to obtain the necessary permits/certifications for the operation of the WRF, including an Aquifer Protection Permit (APP), an AZPDES for the secondary discharge of effluent to Russell Gulch, and an Operator Certification for Water and Wastewater Systems.

As a result of the stormwater control measures, implementation of the SWPPP, and compliance with necessary permits required for the construction and operation of the new facilities, no short-term direct or indirect impacts to surface water would occur as a result of the Proposed Action. Providing existing septic users, and potential future development, with connection to a municipal sewer system would eliminate potential impacts to surface waters from septic fields and the sewage lagoons associated with the Betchel Tract. Long-term direct beneficial impacts would occur to surface water as failing septic systems are abandoned, thereby eliminating the risk of system failures and untreated wastewater being discharged into the environment. Additionally, indirect long-term beneficial impacts may occur if daily surface discharge to Russell Gulch expedites efforts to clean up the Pinal Creek WQARF site and if

wetlands and/or wildlife habitat is created downstream of the WRF. The development of a new regional sanitary district would help to protect the health and safety of the community and promote additional development within or adjacent to the Phase I service area.

Therefore, with the development and implementation of a SWPPP, no short-term direct or indirect impacts to surface water would occur as a result of the Proposed Action. The Proposed Action would also have long-term direct and indirect negligible beneficial impacts.

Best Management Practices

- TRSD would prepare an amendment to the CAG Section 208 Water Quality Management Plan.
- Prior to any project construction, a survey should be conducted to identify any additional waters of the U.S. occurring within the project site. During construction, the contractor would comply with the terms and conditions of CWA Section 404 regulations (Nationwide Permit Number 12), including, but not limited to:
    - Discharges of fill or dredged material (including all earthwork activities, such as clearing, grading, filling, and excavating) into watercourses would be minimized or avoided to the maximum extent practicable.
    - No excess concrete, curing agents, formwork, loose embankment materials, or fuel would be disposed of within the project area.
- TRSD would ensure a stormwater pollution prevention plan is prepared to meet the requirements of the construction general permit, including sampling and analysis plan, as necessary.
- TRSD would prepare and submit a notice of intent for the project to the ADEQ.
- TRSD would prepare and submit a notice of termination upon achieving final stabilization for the project to the ADEQ.
- No grading work would be performed without first having obtained a grading permit from the Gila County Public Works Director or his designee.
- Construction impacts would be confined to the minimum area necessary to complete the project.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would contain many of the same collection system components as the Proposed Action, with the exception of the construction of the new WRF. Collected wastewater would be conveyed to the Miami WRF, which would require the installation of an additional force main from the new lift station to the Miami WRF. With the diversion of the wastewater for treatment entirely to the Miami WRF, no effluent would be discharged into Russell Gulch and the short-term construction impacts of the proposed WRF would not occur. BHP would continue to maintain the existing leachfield for these homes associated with the Betchel Tract until such time that they are connected to the wastewater collection system associated with future Phase II activities. Vegetation

cover similar to present levels would be reestablished relatively quickly reducing the potential for soil erosion and increased sedimentation. Permitting requirements and BMPs would be the same as for the Proposed Action.

Construction activities would be similar to those discussed under the Proposed Action. Since more than one acre of land would be disturbed during construction an AZPDES permit would be required. As part of the AZPDES permit, a SWPPP would be prepared and implemented, which would minimize potential sediment transport by requiring the use of stormwater and erosion control BMPs.

Similar to the Proposed Action, as the TRSD Phase I service area is connected to a sewer collection system rather than individual septic tanks, more land has the potential for development which may result in additional impervious surfaces and potential runoff. With the implementation of stormwater control measures and compliance with all necessary permits required for the construction and operation of the new system, no short-term direct or indirect or long-term direct impacts to surface water would occur as a result of the Miami WRF Conveyance Alternative.

Best Management Practices

- TRSD would prepare an amendment to the CAG Section 208 Water Quality Management Plan.
- Prior to any project construction, a survey should be conducted to identify any additional waters of the U.S. occurring within the project site. During construction, the contractor would comply with the terms and conditions of CWA Section 404 regulations (Nationwide Permit Number 12), including, but not limited to:
    - Discharges of fill or dredged material (including all earthwork activities, such as clearing, grading, filling, and excavating) into watercourses would be minimized or avoided to the maximum extent practicable.
    - No excess concrete, curing agents, formwork, loose embankment materials, or fuel would be disposed of within the project area.
- TRSD would ensure a stormwater pollution prevention plan is prepared to meet the requirements of the construction general permit, including sampling and analysis plan, as necessary.
- TRSD would prepare and submit a notice of intent for the project to the ADEQ.
- TRSD would prepare and submit a notice of termination upon achieving final stabilization for the project to the ADEQ.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer system and WRF would not occur, and residents within the project area would continue to use existing individual septic systems. Occasional septic system failures would continue to occur, resulting in the release of untreated or improperly treated sewage constituents into the environment. Septic system failures could lead to raw sewage entering drainageways and eventually reaching surface waters.

Water quality would continue to degrade under this alternative, resulting in long-term direct and indirect, moderate adverse impacts. Since no construction would occur there would be no short-term impacts to surface waters.

3.7.2.2 Groundwater

Proposed Action

As described in Section 1.2, the installation of a municipal sewer system and WRF would provide a municipal collection and treatment system within TRSD's service area. Providing existing septic users and potential future development with connection to a municipal sewer system would eliminate potential groundwater pollution from septic fields. Connecting current septic users to a municipal sewer system would also help to protect the health and safety of the community through the protection of groundwater quality in the area. The installation of municipal sewer lines and construction of a WRF would eliminate potential groundwater pollution from approximately 810 nitrogen-rich septic tanks, which could contaminate the upper aquifer. TRSD would prepare an amendment to the CAG Section 208 Water Quality Management Plan as part of the APP process required for the project. The WRF would be designed in compliance with the CAG Section 208 Water Quality Management Plan. Once specific design plans for the WRF have been developed, TRSD would coordinate with ADEQ to obtain the necessary permits/certifications for the operation of the WRF, including an APP, an AZPDES for the secondary discharge of effluent to Russell Gulch, and an Operator Certification for Water and Wastewater Systems.

With the implementation of BMPs, compliance with any/all permits required for the project (including appropriate measures for the removal and/or closure of septic systems), no short-term direct or indirect impacts to groundwater would occur as a result of the Proposed Action. Connecting current septic users, and potential future development, to a municipal sewer system would help to protect the health and safety of the community through the protection of groundwater in the area. Long-term, direct, beneficial, impacts would occur to groundwater as failing septic systems are abandoned, thereby eliminating the risk of system failures and untreated wastewater potentially reaching the groundwater. Additionally, long-term, indirect, beneficial impacts would occur with the removal of failing septic tanks and the potential expedited clean up the Pinal Creek WQARF site.

Best Management Practices

- Closure of existing septic tanks must abide by the Title 18 Chapter 9 of the AAC (R18-9-A309) General Provisions for On-site Wastewater Treatment Facilities, Section D. Closure requirements. Provisions include, but would not be limited to:
    - Remove all sewage from the facility and dispose of the sewage in a lawful manner;
    - Disconnect and remove electrical and mechanical components;
    - Remove or collapse the top of any tank or containment structure.
    - Cut and plug both ends of the abandoned sewer drain pipe between the building and the on-site wastewater treatment facility not more than 5 feet outside the building foundation if practical, or cut and plug as close to each end as possible; and
    - Notify the Department within 30 days of closure.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would contain many of the same collection system components as the Proposed Action, with the exception of the construction of the new WRF. Collected wastewater would be conveyed to the Miami WRF. Connecting current septic users to a municipal sewer system would also help to protect the health and safety of the community through the protection of groundwater quality in the area. The installation of municipal sewer lines and construction of a WRF would eliminate potential groundwater pollution.

With the implementation of BMPs and compliance with any/all permits required for the project, no short-term direct or indirect impacts to surface water would occur as a result of the Miami WRF Conveyance Alternative. Similar to the Proposed Action, providing existing septic users and potential future development with connection to a municipal sewer system would eliminate potential of risk of system failures and untreated wastewater reaching groundwater within the TRSD service area. Therefore, long-term direct and indirect beneficial impacts would occur to groundwater as failing septic systems are abandoned and connection to a municipal treatment system is completed.

Best Management Practices

- Closure of existing septic tanks must abide by the Title 18 Chapter 9 of the AAC (R18-9-A309) General Provisions for On-site Wastewater Treatment Facilities, Section D. Closure requirements. Provisions include, but would not be limited to:
    - Remove all sewage from the facility and dispose of the sewage in a lawful manner;
    - Disconnect and remove electrical and mechanical components;
    - Remove or collapse the top of any tank or containment structure.
    - Cut and plug both ends of the abandoned sewer drain pipe between the building and the on-site wastewater treatment facility not more than 5 feet outside the building foundation if practical, or cut and plug as close to each end as possible; and
    - Notify the Department within 30 days of closure.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative residents within the TRSD service area would continue to use the current individual septic systems for wastewater disposal. Since many of the septic systems in use have been improperly maintained, poorly located, and improperly designed and installed, discharge of untreated wastewater, household chemicals, and other contaminants and pollutants (e.g., nitrogen) into the groundwater is expected to continue. Septic system failures could lead to raw sewage entering drainageways and eventually reaching groundwater. The Pinal Creek WQARF site is located within the Phase I TRSD service area and is in the process of remediation. Water for the service area would still

be provided by the American Water Company or the City of Globe coming from the Gila conglomerate aquifer outside of the boundaries of the WQARF site.

With the continued use of the existing septic systems and the potential for additional system failures, the No Action Alternative is anticipated to have long-term, direct and indirect, moderate, adverse impacts to groundwater. Since no construction would occur there would be no short-term impacts to groundwater.

3.8 Coastal Resources

The state of Arizona does not have a coastal zone management program, as no coastal resources occur within the state. Therefore, no analysis is necessary and no impacts on coastal resources, and no mitigation measures would be required.

3.9 Environmental Justice and Socioeconomics

Topics considered in the section include environmental justice and socioeconomic resources within the Phase I area.

3.9.1 Affected Environment

3.9.1.1 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and USDA Departmental Regulation 5600-2, *Environmental Justice* directs federal agencies to identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations". Because children may suffer disproportionately from environmental health risks and safety risks, Executive Order 13045, *Protection of Children from Environmental Health and Safety Risks*, was introduced in 1997 to prioritize the identification and assessment of environmental health risks and safety risks that may affect children and to ensure that federal agencies' policies, programs, activities, and standards address environmental health risks and safety risks to children.

These directives require the consideration of low-income, minority, disabled, and elderly populations during the NEPA process. A minority person refers to a person who is racially classified as African American, Asian American, Native American or Alaskan Native, or anyone who classifies as "other" race. Hispanics are identified as minorities, regardless of their racial affiliation. Elderly refers to individuals 60 years of age and over. Low-income households include households where the income level is no more than 200 percent ($44,100 for a family of four based on the 2010 Census) of the established poverty level ($22,050 for a family of four based on the 2010 Census) (Ogunjimi 2010). Non-institutionalized civilians who are 16 years of age and older are considered to be disabled if they report a mobility disability or a self-care limitation or are work disabled. To assess whether minority, elderly, low-income, or disabled populations are disproportionately represented near the Phase I area, data for census block groups is compared with data for Gila County and the state of Arizona (Tables 2 through 4).

The Phase I area spans portions of U.S. Census Tracts[10] 8, 9, and 10 within Gila County, Arizona. Only a small portion of the Phase I area is located within Census Tract 8, Block Group[11] 2. There are no residential or commercial properties occurring within that portion of the Phase I area, and Census Tract 8, Block Group 2 is excluded from analysis in this EA. The far southwest corner of the Phase I area is located within Census Tract 9, Block Group 1, which is also excluded from analysis because no residential or commercial properties are located in that area.

Census Tract 9, Block Group 2 is located in the western portion of the Phase I area and includes the majority of the Phase I portion of the Phase I area, with residential neighborhoods primarily occurring south of US 60. This Block Group includes the neighborhoods of Lower Miami, Claypool, and Miami Gardens. Census Tract 10, Block Group 5 occurs in the eastern portion of the Phase I area and includes one neighborhood. Because the boundaries of the block groups do not align with the Phase I area, some portions of the block groups extend outside of the Phase I area. Consequently, the exact population and demographic characteristics of the Phase I area may vary from the data presented in Tables 2 through 4.

Table 2. 2010 Population and Racial Demographics

Area	Total Population	No. of White (%)	No. of African American (%)	No. of Native American (%)	No. of Asian (%)	No. of Native Hawaiian/ Pacific Islander (%)	No. of Other (%)	No. of Two or More Races (%)
Census Tract 9, Block Group 2	1,583	1,313 (82.9)	13 (0.8)	31 (2.0)	6 (0.4)	0 (0.0)	188 (11.9)	32 (2.0)
Census Tract 10, Block Group 5	653	541 (82.8)	10 (1.5)	20 (3.1)	0 (0.0)	0 (0.0)	59 (9.0)	23 (3.5)
Census Tract/ Block Group Total	2,236	1,854 (82.9)	23 (1.0)	51 (2.3)	6 (0.3)	0 (0.0)	247 (11.1)	55 (2.5)
Gila County	53,967	41,162 (76.8)	233 (0.4)	7,946 (14.8)	273 (0.5)	47 (0.1)	2,865 (5.3)	1,071 (2.0)
Arizona	6,392,017	4,667,121 (73.0)	259,008 (4.1)	296,529 (4.6)	176,695 (2.8)	12,648 (0.2)	761,716 (11.9)	218,300 (3.4)

Source: U.S. Census Bureau 2010.
Note: No. = number; % = percent.

According to 2010 U.S. Census data, the two block groups occurring in Phase I of the TRSD service area have a total population of 2,236 people, of which, 82.9 percent identify themselves as White (Table 2). Those identifying as Hispanic, which is considered an ethnicity rather than a race, are the second largest group and comprise 34.9 percent[12] of the population (Table 3). The percent of Hispanic population is nearly double the 17.9 percent reported for all of Gila County; however, it is closer to the state level at 29.6 percent. While the Hispanic percentage of the population is larger than it is for the

[10] A census block is the smallest geographic area for which the Bureau of the Census collects and tabulates census data. They are formed by streets, railroads, streams, other visible physical and cultural feature, and legal boundaries (.https://www2.census.gov/geo/pdfs/reference/GARM/Ch11GARM.pdf).

[11] Block groups are the next level above census blocks and are statistical divisions of census tracts. Block groups are generally defined to contain between 600 and 3,000 people, and are used to present data and control block numbering (https://www.census.gov/geo/reference/gtc/gtc_bg.html).

[12] As Hispanic is considered an ethnicity rather than a race, the Hispanic population may count towards more than one racial demographic, thereby exceeding a total of 100%.

county, the percentage of Native Americans (2.3 percent) is much lower than that of Gila County (14.8 percent), and slightly lower than the percentage in Arizona (4.6 percent). The minority population (39.0 percent), which excludes the White non-Hispanic population, is slightly higher within Phase I area than Gila County (34.1 percent), but slightly lower than the state's population (42.2 percent).

Table 3. 2010 Hispanic and Minority Population

Area	No. of Hispanic (%)[a]	No. of Minority (%)[b]
Census Tract 9, Block Group 2	611 (38.6)	670 (42.3)
Census Tract 10, Block Group 5	169 (25.9)	201 (30.8)
Census Tract/Block Group Total	780 (34.9)	871 (39.0)
Gila County	9,588 (17.9)	18,299 (34.1)
Arizona	1,895,149 (29.6)	2,696,370 (42.2)

Source: U.S. Census Bureau 2010.

Note: No. = number; % = percent.

[a] *Hispanic* refers to the total population, with the exception of the white non-Hispanic population.

[b] *Minority* refers to ethnicity, not a separate race, and is derived from the total population.

The combined percentage of the elderly population in the two block groups (27.5 percent) is lower than that of Gila County (32.8 percent) but higher than the total percentage of Arizona's population over 60 (21.9 percent) (Table 4). The percentage of households under the poverty threshold in the Phase I area (21.3 percent) is greater than both Gila County (18.8 percent) and the state (15.7 percent). The percentage of disabled individuals living within the Phase I area (15.7 percent) is higher than the percentage within Gila County (9.8 percent) and more than double that of the state (6.0 percent).

Table 4. Age 60 Years and Over, Below Poverty Level, and Disabled Populations

Area	No. of Age 60 Years and Over (%)[a]	No. of Households Below Poverty Level (%)[b]	No. of Disabled (%)[c]
Census Tract 9, Block Group 2	545 (34.4)	122 (18.3)	283 (17.9)
Census Tract 10, Block Group 5	69 (10.6)	101 (26.6)	67 (10.3)
Census Tract/Block Group Total	614 (27.5)	223 (21.3) [d]	350 (15.7)
Gila County	17,627 (32.8)	3,940 (18.8)	5,240 (9.8)
Arizona	1,398,713 (21.9)	377,752 (15.7)	384,782 (6.0)

Note: No. = number; % = percent.

[a] 2010 U.S. Census Bureau Decennial Census.

[b] 2011–2015 American Community Survey (ACS) 5-Year Estimates. ACS data is aggregated over 5 years for a given census tract.

[c] 2011–2015 ACS 5-Year Estimates. ACS data is aggregated over 5 years for a given census tract. Disability data (percentage with a disability) is based on a "total civilian non-institutionalized population."

[d] Total Households within the Block Groups was 1,048.

3.9.1.2 Socioeconomics

In the greater Globe-Miami community, over 20 percent of the employment in the area is related to mining and production of copper. The mining sector remains robust with five mining companies continuing operations in the immediate area. Other major employment industries include education, health care, social assistance, recreation services, and retail trade (http://www.azcommerce.com/a/profiles/ViewProfile/65/Globe-Miami/).

The communities of Miami, Claypool, and Central Heights-Midland City have all experienced a consistent decline in population ranging from 13 percent to 21 percent between 1990 and 2010. The

population decrease in these communities is attributed to fluctuations in mining activity, as well as a result of properties that have had their water disconnected due to violations of onsite wastewater management, leading to abandoned properties (PACE 2017). Since 2010, the population has been relatively stable with Globe-Miami population at 7,533 and 7,488 respectively in those years according to the Arizona Office of Economic Opportunity. Data available from the *2011–2015 American Community Survey 5-year Estimates* from the U.S. Census Bureau indicates that the median household income in the block groups of the Phase I area is $41,239, which is slightly higher than Gila County ($39,751), but below the state median household income ($50,225). The unemployment rate is 10.5 percent, which is lower than Gila County (12.8 percent), but higher than the state average of 8.9 percent.

3.9.2 Environmental Consequences

3.9.2.1 Environmental Justice

Proposed Action

The Proposed Action would provide approximately 810 new service connections to residential and commercial properties in the Phase I area. The affected population within the Phase I area would be afforded equal access to the services the Proposed Action would provide; no group would be disproportionately or adversely affected by any impacts associated with construction or operation of the WRF. The Proposed Action would provide benefits to the entire population of the Phase I area, regardless of race, age, or financial status. Therefore, no disproportionate environmental justice impacts are anticipated to occur as a result of the Proposed Action.

Best Management Practices

None identified.

Mitigation Measures

No mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would contain many of the same collection components as the Proposed Action, with the exception of the construction of a new WRF. Collected wastewater would be conveyed to the Miami WRF, which includes construction of the lift station and installation of force main between the lift station and Miami WRF. This alternative would provide benefits to the entire population of the Phase I area, regardless of race, age, or financial status. Therefore, no disproportionate environmental justice impacts are anticipated to occur as a result of the Miami WRF Conveyance Alternative.

Best Management Practices

None identified.

Mitigation Measures

No mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

No direct or indirect disproportionate environmental justice impacts are anticipated to occur as a result of the No Action Alternative.

3.9.2.2 Socioeconomics

Proposed Action

Beneficial impacts on the health and safety of the local population would result from the improved wastewater collection and treatment from the construction and operation of the Proposed Action. Effects to socioeconomics resulting from the Proposed Action would include relief of a financial burden to property owners that have limited options to address failing septic systems. A properly installed system for wastewater treatment which complies with the current local code can cost between $25,000 and $35,000 (PACE 2017). The Proposed Action would result in off-setting adverse financial impacts on property owners resulting from the creation of a monthly service fee for wastewater services. However, the net effect is anticipated to be beneficial, as the costs for a regional treatment facility and collection system would be spread out over decades. Connection to a sewer collection system and treatment facility would help reduce declining property values. With the implementation of the Proposed Action, indirect effects would include the potential to encourage new development as a result of connectivity to a regional WRF.

The Proposed Action would have beneficial impacts on public health because the release of untreated wastewater into the environment from septic tank back-up or failure would be eliminated. A limited number of new permanent jobs at the WRF would be generated as a result of the Proposed Action. With the removal of septic tanks, local septic pumping businesses would experience a loss in business because of the Proposed Action.

Short-term impacts would occur from an increase in temporary employment and associated secondary spending in the area during construction activities. During construction there would also be temporary access restriction to individual residential and business and brief disconnections in service. Disturbances to private land would be temporary during installation of new service connections, and private yards would be restored following the completion of the new service connections.

The net effect of the Proposed Action is anticipated to have a substantial effect on socioeconomics within the Phase I area by providing reliable wastewater services to areas that are currently served by aging and failing septic systems. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, long-term, direct and indirect, major, beneficial impacts on socioeconomics and short-term, direct and indirect, negligible adverse impacts.

<u>Best Management Practices</u>

- Traffic control measures would be implemented to maintain at least one access point to residences and businesses wherever possible.
- Affected homeowners and business owners would be notified in advance of any access restrictions.
- Affected homeowners and businesses would be notified of construction schedules and any planned disconnections in service.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

The Miami WRF Conveyance Alternative would contain many of the same collection components as the Proposed Action, with the exception of the construction of a new WRF. Impacts from construction activities would be similar to those described under the Proposed Action. The costs for a regional treatment facility and collection system would be spread out over decades, and connection to a sewer collection system and treatment facility would help reduce declining property values. The Miami WRF Conveyance Alternative would have beneficial impacts on public health because the release of untreated wastewater into the environment from septic tank back-up or failure would be eliminated. No new permanent jobs at the WRF would be created since the facility already exists and there would be a reduction in business for local septic pumping companies. The Miami WRF Conveyance Alternative would have a substantial effect on socioeconomics within the Phase I area by providing reliable wastewater services to areas that are currently served by aging and failing septic systems Therefore, with the implementation of the following BMPs, the Miami WRF Conveyance Alternative would have localized, long-term, direct and indirect, major, beneficial impacts on socioeconomics and short-term, direct and indirect, negligible adverse impacts.

Best Management Practices

- Traffic control measures would be implemented to maintain at least one access point to residences and businesses wherever possible.
- Affected homeowners and business owners would be notified in advance of any access restrictions.
- Affected homeowners and businesses would be notified of construction schedules and any planned disconnections in service.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system would not occur, and residents of the TRSD service area would continue to use existing individual septic systems and cesspools. The potential for these systems to back up or fail would continue to exist. As individual septic systems continue to age and property values fall, it would be increasingly difficult for property owners to replace their septic systems, potentially resulting in more vacant and abandoned properties.

The lack of adequate infrastructure would continue to influence growth opportunities in the area. Neighborhoods within the Phase I area could become blighted as a result of an increasing number of abandoned properties, which could contribute to declining home values and become a socioeconomic burden on the community and its residents. Therefore, the No Action Alternative would have localized, long-term, direct and indirect, major, adverse impacts on socioeconomics and short-term, direct and indirect, negligible adverse impacts.

3.10 Miscellaneous Issues

Topics considered in the section include air quality, noise, and transportation resources within the Phase I area.

3.10.1 Affected Environment

3.10.1.1 Air Quality

The Clean Air Act (CAA) regulates air emissions from mobile and stationary sources. The CAA requires the EPA to set National Ambient Air Quality Standards (NAAQS) for maximum allowable concentrations of six "criteria" pollutants in outdoor air. The six pollutants are carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter ($PM_{2.5}$ and PM_{10})[13], and sulfur dioxide (SO_2). The standards are set at a level that protects public health with an adequate margin of safety. The EPA is authorized to designate areas that exceed the NAAQS as “non-attainment areas.” Geographic areas that are lower than or meet the NAAQS criteria are considered to be in attainment.

Arizona is located within EPA Region 9, and the ADEQ Air Quality Division has jurisdiction over air quality in the state, including on state, local, and private lands. CAA permitting in Arizona is the shared responsibility of the state and three counties that have received delegated authority (i.e., Maricopa, Pima, and Pinal), as well as EPA Region 9. The EPA requires each state to prepare a State Implementation Plan (SIP) to comply with the CAA and to achieve and maintain attainment of NAAQS. Arizona’s SIPs are a compilation of all air pollution strategies, state statutes, state rules, and local ordinances that will be used to bring geographic areas into compliance with all NAAQS. The SIPs are enforceable by federal and state government (ADEQ 2017b).

Air quality is affected by emissions from mobile sources (e.g., motor vehicles) and stationary sources (e.g., industrial development). It is the result of several factors that include the type and quantity of pollutants emitted locally and regionally and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind direction and speed, temperature, atmospheric stability, the presence or absence of inversions, and topography. Odors can also impact air quality and are generated by a wide range of operations including wastewater treatment plants.[14] The potential impact of any odor depends upon the source of odorous emissions, their concentration, and the frequency and duration of exposure.

The TRSD service area is located within the Miami Nonattainment Area for sulfur dioxide (2010 standard), Miami Maintenance Area for sulfur dioxide (1971 standard) and the Miami Nonattainment Area for PM_{10} Moderate (1987 standard) (EPA 2017a; ADEQ 2016).[15] However, based on EPA’s determination in 2007 that the PM_{10} Nonattainment Area achieved the 24-hour PM_{10} NAAQS (the first test for re-designation to attainment), ADEQ submitted a Limited Maintenance Plan (qualifying

[13] $PM_{2.5}$ is composed of inhalable particles, with diameters that are generally 2.5 micrometers and smaller. PM_{10} is composed of inhalable particles, with diameters that are generally 10 micrometers and smaller.

[14] Offensive and odors and smells can also be a result of industrial and agricultural operations such as livestock feedlots and asphalt plants.

[15] Particulate matter or PM (also called particle pollution) is a term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. Some are emitted directly from a source, such as fields, unpaved roads, construction sites, smokestacks, or fires. Most particles form in the atmosphere as a result of complex reactions of chemicals such as sulfur dioxide and nitrogen oxides, which are pollutants emitted from power plants, industries, and automobiles (EPA 2017b).

as a SIP) in July 2008 and formally requested that EPA redesignate the area to attainment (ADEQ 2008). EPA's 2007 determination included the issuance of a clean data finding for the area, indicating that attainment had been achieved and relieving the State from certain demonstrations of attainment (ADEQ 2008). EPA's response to ADEQ's 2008 submittal remains pending (ADEQ 2017c).

Exposure to PM_{10} levels exceeding current standards can result in increased lung and heart-related respiratory illness. The EPA has concluded that finer particles are more likely to contribute to health problems than those greater than 10 microns in diameter (EPA 2016). Sulfur dioxide is emitted primarily from stationary sources and emissions in the vicinity of the TRSD are generated predominantly by copper smelter stack(s) (Hodl 2016). High concentrations of sulfur dioxide may aggravate existing human cardiovascular and respiratory disease, and people with asthma, emphysema or bronchitis are the most sensitive. Sulfur dioxide also contributes to acid rain, which can damage trees and lead to the acidification of lakes and streams. The primary point source for sulfur dioxide in the nonattainment area is the Miami Smelter, located adjacent to the TRSD service area, which accounts for over 99 percent of SO_2 emissions in the area (ADEQ 2017d). Odor sources near the Phase I area include the Miami WRF, Globe WWTP, and on-site septic system leach fields (AMEC 2011).

3.10.1.2 Noise

The Noise Control Act establishes a national policy to promote an environment that is free from noise that jeopardizes the population's health or welfare. Ambient sound conditions within the environment are highly variable and depend on a combination of elements such as season of the year, weather conditions, population density, land use, terrain, vegetation type and density, water bodies, and the quantity and types of vehicles and aircraft present. Existing ambient noise levels within the Phase I area result from traffic activity on US 60 and local roads, train-hauling activities into and out of the Phase I area, mining operations (e.g., industrial machinery, heavy trucks, blasting, etc.), and other typical domestic urban noises. Table 5 provides a list of common environmental noise levels.

Table 5. Common Environmental Noise Levels Measured in Decibels (dBA)

dBA	Source	dBA	Source
10	Normal breathing	95	Electric Drill
18-20	Pinyon-Juniper Vegetation/Ponderosa Pine Vegetation	95 – 110	Motorcycle
40	Quiet Office, Library, Residential Area	100	Gas Lawn Mower at Three Feet
50-60	Electric Toothbrush	105	Snow Blower
60	Normal Conversation At Three Feet	110	Baby Crying
60-95	Hair Dryer	150	Ambulance Siren
70 - 80	Coffee Grinder	125	Chain Saw
70 – 95	Garbage Disposal, Whistling Kettle	130	Jack hammer/power drill
80	Truck, Shouted Conversation	150	Jet Engine Taking Off

Source: NPS 2009 and Center for Hearing & Communication. http://chchearing.org/noise/common-environmental-noise-levels. 2017\

Noise is defined as unwanted sound or, more specifically, as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying. Human response to noise can vary according to the type and characteristics of the noise source, the distance between the noise source and the receptor, the sensitivity of the receptor, the time of day, and seasonal temperatures. For example, people are more tolerant of construction noise levels if they perceive that what is being built is beneficial to them and to their community. Noise-sensitive receptors

and land uses include but are not limited to residences, hospitals, churches, schools, parks, cemeteries, some recreational facilities, and historical/cultural facilities. The primary noise receptors in the vicinity of the Phase I area include residential areas, churches, and schools.

3.10.1.3 Transportation

Street transportation and circulation includes four major functional types of roadways: expressways or freeways, arterials, collectors, and local streets. Arterials move traffic between principal traffic generators such as hospitals and industrial parks. Collectors may include rural routes and major surface streets while local streets may be designed as grids, loops, and cul-de-sacs. US 60 is the primary route through Gila County, and links Miami and Globe to the Phoenix metropolitan area to the west. Within the Phase I area, US 60 is classified as an urban principal arterial[16] according to the Globe 2035 General Plan (Globe 2014). Secondary roads or arterial/collector roads connect to US 60 and enable vehicle movement to commercial and industrial areas throughout the two communities. Local streets such as Maple Leaf Street, Latham Boulevard, and Adonis Avenue are urban collectors[17]. These residential streets that form a grid pattern, are paved, include one lane in each direction, and experience light traffic. Existing wastewater system lines have been constructed within the rights-of-ways for several of these roadways, including US 60. Existing sewer mains and other collections lines are parallel to or cross beneath the existing pavement of US 60 and local streets.

Other transportation facilities within the Phase I area include the Arizona Eastern railroad line, which principally provides services related to the mining industries. The Arizona Eastern rail line extends from the Miami-Globe area to the east through Safford and meets the main Union Pacific line at Bowie, Arizona (Gila County 2003). The Cobre Valley Community Transit System is currently serves Miami, Globe and the unincorporated areas of Gila County. Within the Phase I area, the Red and Blue Routes operate along US 60 providing two stops and a transfer location between 6:30 am and 6:00 pm during the week days. There are no designated bikeways within the Phase I area (Globe 2014).

3.10.2 Environmental Consequences for Miscellaneous Issues

3.10.2.1 Air Quality

Proposed Action

Air emissions resulting from the Proposed Action would include fugitive dust ($PM_{2.5}$ and PM_{10} emissions) associated with construction activities (such as trenching, grading, and installation of project elements), clearing of vegetation, and vehicles driving on unpaved surfaces. Exhaust from construction worker, material delivery vehicles, and other equipment during construction of the proposed site, such as portable electrical generators would result in localized, short-term increases in CO and NOx emissions. Estimated emissions associated with the installation of the proposed sewer collection system were calculated during the preparation of the 2011 Environmental Report and were found “to be well below the general conformity thresholds defined under 40 CFR 51.853” (AMEC 2011). The Proposed Action would include the addition of new WRF; however, the construction footprint for the

[16] An urban principal arterial is designated to move high volumes of traffic over substantial distances but may also provide direct access to adjacent properties. US 60 is the only principal arterial in the Globe-Miami area (Globe 2014).

[17] Collector roads provide for traffic movements between arterial and local streets. They typically service residential/local streets; and relieve traffic within, adjacent to, or between subdivisions (Gila County 2003)

WRF is less than one acre. With the inclusion of the WRF, emissions are still expected to remain below the *de minimis* thresholds of 100 tons per year for PM_{10} and SO_2.

Potential air emissions from the operation of the proposed WRF would primarily occur at locations where liquid is turbulent, such as the aerated grit tanks, aerated channels, aeration basins, clarifier wells, or other areas that have high turbulence. Emissions would vary in relation to the flow received by the facility, maintenance, and odor control operations (e.g., prechlorination and chlorination to control algal growth). Use of the MBR process would reduce the footprint of the WRF and the need for secondary clarifiers and tertiary filtration process (The MBR Site 2017). In addition, the aeration basin volume may be able to be reduced. These improvements in technology would reduce the volume of air emissions from the facility. Infrequent use of a diesel-fueled emergency-power generator[18] would also contribute to air emissions; however, emergency-power generators typically run less than 200 hours per year and have a very small impact on local air quality (PLC Enterprises 2013).

A review of construction operations has been performed and determined that emissions are expected to remain below the *de minimis* thresholds of 100 tons per year for PM_{10} and SO_2, as required in 40 CFR Part 93 Subpart B, it is anticipated that no additional conformity analysis would be expected. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, long-term, direct and indirect, negligible, adverse impacts on air quality from the operation of the new facilities and short-term, direct and indirect, minor adverse impacts from construction activities.

Best Management Practices

- Operators of trucks/vehicles would not leave engines idling for longer than necessary.
- Fugitive dust would be controlled with water trucks.
- Clearing of vegetation would be avoided when and wherever possible.
- Vehicular speeds would be reduced on unpaved roads, and vehicles would remain on paved surfaces wherever possible.
- Soil stockpiles would be covered or kept wet to prevent wind erosion.
- Backfilled soils would be compacted to the existing grade level and reseeded with a native seed mix to reduce wind erosion in areas where erodible soil would remain exposed after construction.
- The contractor shall comply with all local air quality and dust control rules, regulations and ordinances.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

Construction activities would be similar to those under the Proposed Action. Air emissions resulting from the Miami WRF Conveyance Alternative would include fugitive dust associated with construction activities, but would be slightly less because this alternative would not include the construction of a new WRF. The improvements in technology would reduce the volume of air emissions from the upgraded

[18] Generator installation that only operates during the loss of normal power source, such as the utility or main electrical grid.

Miami WRF. The need for a diesel-fueled emergency-power generator would not increase as a result of the TRSD Phase I service area collected wastewater being conveyed to the Miami WRF. Therefore, with the implementation of the BMPs, the Miami WRF Conveyance Alternative would have localized, long-term, direct and indirect, negligible, adverse impacts on air quality and short-term, direct and indirect, minor adverse impacts from construction activities.

Best Management Practices

- Operators of trucks/vehicles would not leave engines idling for longer than necessary.
- Fugitive dust would be controlled with water trucks.
- Clearing of vegetation would be avoided when and wherever possible.
- Vehicular speeds would be reduced on unpaved roads, and vehicles would remain on paved surfaces wherever possible.
- Soil stockpiles would be covered or kept wet to prevent wind erosion.
- Backfilled soils would be compacted to the existing grade level and reseeded with a native seed mix to reduce wind erosion in areas where erodible soil would remain exposed after construction.
- The contractor shall comply with all local air quality and dust control rules, regulations and ordinances.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a WRF would not occur, and residents within the Phase I area would continue to use individual septic systems. Criteria pollutants would not be affected, and no impacts on air quality would occur with the No Action Alternatives

3.10.2.2 Noise

Proposed Action

Potential noise effects would result from the Proposed Action's construction activities and from the operation of the WRF. Temporary construction noise would result from noise generated from pumps and compressors, which operate at a constant noise level under normal operation and are classified as non-impact equipment. Jackhammers and pavement breakers produce variable and intermittent noise and frequently produce impact-type noises. Impact equipment generates impulsive noise that is defined as, "noise of short duration, high intensity, abrupt onset, rapid decay and often rapidly changing spectral composition" (FHWA 2015). Mobile equipment such as bulldozers, graders, excavators, and heavy trucks (e.g., haul/dump trucks and water trucks) operate in a cyclic fashion. Mobile equipment used for the construction of the WRF may also include a concrete pump and mixer, crane, and backhoe. The establishment of a construction staging area would reduce noise from transport of some of these vehicles to and from the construction site. In addition, operators would be directed to use hearing protection equipment as required. In general, temporary noise associated with construction is

anticipated to range from approximately 65 to 95 decibels. Intermittent construction noise levels (e.g., jackhammer, pavement breaker) could be higher depending on the equipment used. The close proximity of construction activities to sensitive receptors (e.g., residential areas and schools) would be localized and temporary. Noise impacts would also result from new service connections for residential and commercial properties including yard restoration following installation.

During the operation of the Proposed Action there would be some incremental changes to future ambient noise levels within the Phase I area that would occur intermittently. Examples of these noise sources include aerators and settling tanks, occasional truck traffic hauling biosolids from the WRF to the local landfill, workers arriving to and departing from work, and intermittent landscaping and facility maintenance activities. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, long-term, direct and indirect, negligible, adverse noise impacts and short-term, direct and indirect, minor adverse noise impacts.

Best Management Practices

- Special equipment such as noise-damping devices (i.e., sound blankets, deflective barriers, mufflers) would be used and/or scheduling restrictions (e.g., working hours between 8:00 a.m. and 6:00 p.m.) would take place. No nighttime work would occur.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

In the Miami WRF Conveyance Alternative construction activities would be similar to those under the Proposed Action. Temporary construction noise would result from noise generated from pumps, compressors, jackhammers, pavement breakers, which produce variable and intermittent noise. The close proximity of construction activities to sensitive receptors (e.g., residential areas and schools) would be localized and temporary. New service connections for residential and commercial properties including yard restoration following installation. Therefore, with the implementation of the following BMPs, the Miami WRF Conveyance Alternative would have localized, long-term, direct and indirect, negligible, adverse noise impacts and short-term, direct and indirect, minor adverse noise impacts.

Best Management Practices

- Special equipment such as noise-damping devices (i.e., sound blankets, deflective barriers, mufflers) would be used and/or scheduling restrictions (e.g., working hours between 8:00 a.m. and 6:00 p.m.) would take place. No nighttime work would occur.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer system would not occur and ambient noise levels would remain consistent with current levels. Therefore, under the No Action Alternative, no noise impacts would occur.

3.10.2.3 Transportation

Proposed Action

No construction work or lane closures would occur along SR 60 during the installation of the Phase I sewer collection system under the Proposed Action. There would be impacts on traffic patterns, such as detours, traffic delays, and increased presence of work vehicles on Russell Road during construction of the WRF and on some of the local streets as workers install sewer collection lines, the new force main sewer line, and manholes. No road closures would be anticipated, and single-lane closures would be used wherever possible to facilitate construction activities.

Although the lane closures would create temporary delays and reduce traffic movement, the remaining lanes would accommodate the expected volume of traffic on the roadways. Construction activities would not generally occur for longer than a few days in a specific area. Temporary closures of driveways would typically result in restricted access for 30 minutes or less; driveway access to businesses and residential roadways would be maintained during construction, where possible. Any temporary detours needed for pedestrian traffic or alternative routes selected for safety would be well-marked with appropriate signage. The traffic control measures and notification prior to and during construction would help minimize impacts on local traffic. The Proposed Action would have no impacts on the bus routes or schedule. Therefore, with the implementation of the following BMPs, the Proposed Action would have localized, long-term, direct and indirect, negligible, adverse impacts on transportation and short-term, direct and indirect, minor adverse impacts.

Best Management Practices

- During construction activities, work would be limited to the amount of roadway that could be closed while maintaining operation of the road.
- A Traffic Management Plan would be required for approval by TRSD and Gila County prior to construction.
- Notification of potential access restrictions would be provided a minimum of 72 hours in advance to businesses, residences, and emergency response departments (i.e., police/sheriff, fire, ambulance).
- Traffic control signage would be installed at suitable locations no less than five business days before the beginning of construction to announce construction and upcoming lane closures to the commuting public.
- During construction, a flag crew would be present at all detour sites and points of congestion.

Mitigation Measures

With the inclusion of BMPs identified above, no mitigation measures are recommended for the Proposed Action.

Miami WRF Conveyance Alternative

Construction activities associated with the Miami WFR Conveyance Alternative would be similar to those under the Proposed Action, with the exception of impacts associated with the construction of a new WRF. Measures to maintain traffic circulation along roadways and maintain property access would be the same as for the Proposed Action. There would be no impacts to bus service within the Phase I area. Therefore, with the implementation of the following BMPs, the Miami WFR Conveyance

Alternative would have localized, long-term, direct and indirect, negligible, adverse impacts on transportation and short-term, direct and indirect, minor adverse impacts.

Best Management Practices

None identified.

Mitigation Measures

No mitigation measures are recommended for the Miami WRF Conveyance Alternative.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer system and WRF would not occur, and residents within the Phase I area would continue to use existing individual septic systems. Transportation and circulation would not be affected. Therefore, there would be no effects on transportation in the Phase I area from the No Action Alternative.

3.11 Summary of Environmental Impacts by Alternative

The potential environmental impacts of the Proposed Action, Maimi WRF Conveyance Alternative, and the No Action Alternatve were evaluated based on both the context of the effects on the project area and the intensity or severity of impacts as defined in the CEQ regulations. Table 6 summarizes the potential environmental impact intensity and duration.

Table 6. Summary of Environmental Assessment

Environmental Resource	Proposed Action	Miami WRF Conveyance Alternative	No Action
Ownership/ Jurisdiction and General Land Use	No impacts on jurisdiction ▪ Short-term direct and indirect, negligible, neutral, impacts on ownership ▪ Long-term, direct and indirect, negligible, beneficial impacts on ownership ▪ No short-term impacts on land use ▪ Long-term, direct and indirect negligible, beneficial impacts on land use	No impacts on jurisdiction or ownership ▪ No short-term impacts on land use ▪ Long-term, direct and indirect negligible, beneficial impacts on land use	No impacts on ownership or jurisdiction ▪ No short-term impacts on land use ▪ Long-term direct and indirect, moderate, adverse, impacts on land use
Floodplains	No Impacts	No Impacts	No Impacts
Wetlands	Not Applicable	Not Applicable	Not Applicable
Cultural Resources	No Impacts	▪ No indirect impacts ▪ Short-term direct negligible adverse impacts ▪ Long-term direct negligible adverse impacts	No Impacts

Environmental Resource	Proposed Action	Miami WRF Conveyance Alternative	No Action
Visual Resources	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible beneficial impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible beneficial impacts	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible beneficial impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible beneficial impacts	▪ No short-term impacts ▪ Long-term direct and indirect negligible adverse impacts
Biological Resources			
Vegetation	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible beneficial impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible beneficial impacts	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	No Impacts
General Fish and Wildlife	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible beneficial impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible beneficial impacts	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct minor adverse impacts ▪ Long-term indirect minor adverse impacts
Federally-listed Species	No Impacts	No Impacts	No Impacts
Migratory Birds	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	No Impacts

Environmental Resource	Proposed Action	Miami WRF Conveyance Alternative	No Action
Water Resources			
Surface Water	▪ No short-term impacts ▪ Long-term direct negligible beneficial impacts ▪ Long-term indirect negligible beneficial impacts	▪ No short-term impacts ▪ Long-term direct negligible beneficial impacts ▪ Long-term indirect negligible beneficial impacts	▪ No short-term impacts ▪ Long-term direct moderate adverse impacts ▪ Long-term indirect moderate adverse impacts
Groundwater	▪ No short-term impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible advere impacts	▪ No short-term impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible advere impacts	▪ No short-term impacts ▪ Long-term direct moderate adverse impacts ▪ Long-term indirect moderate advere impacts
Coastal Resources	Not Applicable	Not Applicable	Not Applicable
Environmental Justice and Socioeconomic			
Environmental Justice	No Impacts	No Impacts	No Impacts
Socioeconomic	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible adverse impacts ▪ Long-term direct major beneficial impacts ▪ Long-term indirect major beneficial impacts	▪ Short-term direct negligible adverse impacts ▪ Short-term indirect negligible adverse impacts ▪ Long-term direct major beneficial impacts ▪ Long-term indirect major beneficial impacts	No Impacts
Miscellaneous Issues			
Air Quality	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	No Impacts
Noise	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	No Impacts

Environmental Resource	Proposed Action	Miami WRF Conveyance Alternative	No Action
Transportation	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	▪ Short-term direct minor adverse impacts ▪ Short-term indirect minor adverse impacts ▪ Long-term direct negligible adverse impacts ▪ Long-term indirect negligible adverse impacts	No Impacts

4.0 CUMULATIVE IMPACTS

A cumulative effect is defined under NEPA as “the change in the environment which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other action”. “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR Part 1508.7). Past, present, and reasonably foreseeable future actions incrementally add to the potential adverse or beneficial cumulative impacts of the Proposed Action and the other alternatives that are considered in this EA.

4.1 Geographic and Temporal Scope of Analysis

The USDA RD instructions for preparing EAs recommends that geographic (spatial) and time (temporal) boundaries be established for cumulative effects analysis (USDA 2016). Due to the nature of the Proposed Action and other alternatives considered in this EA, the spatial limits, referred to as the cumulative effects study area (CESA), for individual resources has been identified as Gila County. Cumulative effects can occur during the implementation of individual project components associated with the alternatives and the Proposed Action and/or after implementation of actions in specific locations as the infrastructure of the communities of Miami and Globe become reestablished. The planning period established by the TRSD for the life cycle of the facility is 20 years. This will serve as the temporal limits for the analysis of cumulative impacts.

4.2 Past and Present Actions

In order to understand the contribution of past actions to the cumulative effects of the alternatives and the Proposed Action, this analysis relies on current environmental conditions as a proxy for the impacts of past actions. Existing conditions reflect the aggregate impact of prior human actions and natural events that have affected the environment and could contribute to cumulative effects. The cumulative effects analysis does not attempt to quantify the effects of past human actions by adding up all prior actions on an action-by-action basis. By looking at current conditions, the residual effects of past human actions and natural events are captured, regardless of which particular action or event contributed those effects. The CEQ issued an interpretive memorandum on June 24, 2005 regarding analysis of past actions, which states, “agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions”.

4.3 Reasonably Foreseeable Future Actions

Reasonably foreseeable future actions are actions that have existing decisions, funding, or formal proposals or that are highly probable. These actions are not connected to the alternatives or the Proposed Action. They are projections being made so that future effects, cumulative and otherwise, can be estimated, as required by NEPA. Anticipated future actions include the continuation of Miami making improvements and upgrades to its existing wastewater collection system (AMEC 2011). The Miami project includes the replacement of ageing sewer lines, closing the existing wastewater treatment plant, decommissioning the existing wastewater lagoon treatment system, upgrading the influent pump station, installing a new grit removal system, and transferring all wastewater flows to a 640,000 gpd Miami WRF constructed by FMI for the Town of Miami within the last five years (PACE 2017). The TRSD Phase II and Phase II wastewater collection and treatment would be implemented. Phase II

would include the Miami Service Area, Midland Area, Central Heights Area, and Russell Road Area. Phase III would include State Route 188 Area, Globe Service Area, Midland City Area, and the Central Heights Area. In total, Phase II and Phase III would include 1,308 parcels and over 1,000 residences.

Both the Town of Miami and City of Globe have included in their respective capital improvement projects funds for infrastructure projects. Capital projects in the Gila County's 2017 budget included new water lines, shelters, park restrooms, playgrounds, and a variety of improvement of existing recreational facilities, and roadway/street improvements. In the Arizona Department of Transportation 2018-2022 Five Year Transportations Facilities Construction Program, Gila County will receive over 42 million dollars in highway improvement projects including the replacement of the Pinto Creek Bridge structure, various intersection improvements, passing lane projects, and a new wastewater system constructed at the Mazatzal Rest Area.

4.4 Cumulative Impacts on Resources

For this analysis, cumulative resource impacts for the CESA are the combined direct and indirect effects of the present and reasonably foreseeable future actions, plus the direct and indirect impacts of the No Action Alternative, Miami WRF Conveyance Alternative, and the Proposed Action. The levels of direct and cumulative impacts are categorized as major, moderate, or minor based on the same thresholds defined in Section 3.1. In addition, if the direct or indirect impacts were considered to be none or negligible as a result of the alternatives or the Proposed Action, there would be no contribution to the resource's cumulative impacts. Similar short-term impacts or temporary impacts have been determined to have no contribution to the resource's cumulative impacts.

The No Action Alternative, Miami WRF Conveyance Alternative, and the Proposed Action would both result in long-term, direct and indirect, adverse and beneficial impacts to resources. Both the Miami WRF Conveyance Alternative and the Proposed Action would employ BMPs to reduce adverse impacts to the extent possible. Based on the analysis of direct and indirect impacts, neither the No Action Alternative, Miami WRF Conveyance Alternative, or the Proposed Action would have long-term, minor, moderate, or major direct or indirect effects on cultural resources, biological resources, floodplains, wetlands, visual aesthetics, coastal resources, Environmental Justice, air quality, noise levels, or transportation. There would be no incremental contribution to the resources respective cumulative impacts; therefore there is no cumulative effects analysis for these resources. The analysis of impacts from the No Action Alternative, Miami WRF Conveyance Alternative, and the Proposed Action are provided in Chapter 3; refer to the specific resource subsection for detailed information. There would be long-term, minor, moderate, or major direct or indirect beneficial effects on water resources and socioeconomics, and the cumulative impacts for these resources are described in Section 4.4.1 and Section 4.4.2, respectively.

Based on the analysis of potential direct and indirect effects from the No Action Alternative, there would be long-term, direct and indirect, moderate adverse impacts on land use because of the potential change from occupied residential land use to abandoned, vacant parcels within the Phase I area. Cumulatively, effects of the No Action Alternative, when combined with past, present, and reasonably foreseeable future actions, would result in a minor, direct and indirect, beneficial cumulative impact on land use within the CESA as current undeveloped lands are developed based on Gila County's proposed land use plan (Gila County 2003) and the completion of infrastructure improvements within the Miami-Globe area. The No Action Alternative would have a negligible contribution to the cumulative effect on land use within the CESA because the Phase I area represents less than 0.1 percent of the land area of the County.

4.4.1 Water Resources

4.4.1.1 Proposed Action Contribution to Cumulative Impacts

Activities on private, state, federal, and tribal lands within the CESA related to motor vehicle use, mining, and cattle grazing are commonly associated with potential soil erosion and the deterioration of surface waters. Soil erosion, which can be caused by loss of vegetation in areas of sheet flow near water bodies, on banks and floodplains of perennial and intermittent stream beds, and in streams with increased stream flows, can impact surface waters. These actions can also affect the amount of available groundwater due to pumping; however, maintenance and management goals of affected areas minimize potential cumulative impacts to water resources.

Long-term direct beneficial impacts would occur to surface water as failing septic systems are abandoned, thereby eliminating the risk of system failures and untreated wastewater being discharged into the environment. Connecting current septic users, and potential future development, to a municipal sewer system would help to protect the health and safety of the community through the protection of surface water and groundwater in the area. Therefore, the incremental effect of the Proposed Action, when added to the past, present, and reasonably foreseeable future actions, would result in minor, adverse cumulative impacts on the water resources within the CESA. The Proposed Action would have a negligible contribution to the cumulative effect on water resources because the Phase I area represents less than 0.1 percent of the land area of the County.

4.4.1.1 Miami WRF Conveyance Alternative Contribution to Cumulative Impacts

The Miami WRF Conveyance Alternative contains many of the same collection system components as the Proposed Action. Connecting current septic users to a municipal sewer system would help to protect the health and safety of the community through the protection of water resources in the area and would eliminate potential surface water and groundwater pollution. Therefore, the incremental effect of the Miami WFR, when added to the past, present, and reasonably foreseeable future actions, would result in minor, adverse cumulative impacts on the water resources within the CESA. The Proposed Action would have a negligible contribution to the cumulative effect on water resources because the Phase I area represents less than 0.1 percent of the land area of the County.

4.4.1.2 No Action Alternative Contribution to Cumulative Impacts

Many of the septic systems in use have been improperly maintained, poorly located, and improperly designed and installed. There would continue to be the discharge of untreated wastewater, household chemicals, and other contaminants and pollutants into the ephemeral drainages and groundwater. With the continued use of the existing septic systems and the potential for additional system failures, the No Action Alternative is anticipated to have both long-term, direct and indirect, moderate adverse impacts to water resources. Cumulatively, effects of the No Action Alternative, when combined with past, present, and reasonably foreseeable future actions, would result in minor adverse cumulative impacts on the water resources within the CESA. The No Action Alternative would have a negligible contribution to the cumulative effect on water resources because the Miami-Globe area represents less than one percent of the land area of the County.

4.4.2 Socioeconomics

4.4.2.1 Proposed Action Contribution to Cumulative Impacts

Under the Proposed Action, the installation of a new municipal sewer system and WRF would occur, and residents within the Phase I area would not continue to use existing individual septic systems. Effects to socioeconomics resulting from the Proposed Action would include relief of a financial burden to property owners that have limited options to address failing septic systems. The Proposed Action within the Phase I area would provide reliable wastewater services to areas that are currently served by aging and failing septic systems. Connection to a sewer collection system and treatment facility would help reduce declining property values and would have the potential to indirectly encourage new development as a result of connectivity to a regional WRF. Implementation of TRSD's Phase II and Phase III sewer system improvements and the County's and municipalities other capital infrastructure projects would result in beneficial effects on socioeconomic resources.

Based on the analysis of potential effects in this EA, the Proposed Action would have localized, long-term, direct, major, beneficial impacts on socioeconomics. Cumulatively, effects of the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would result in a moderate, direct and indirect, beneficial cumulative impact on socioeconomics within the CESA. The Proposed Action would have a negligible contribution to the cumulative effect on socioeconomics of the CESA because the Phase I area represents approximately 4 percent of the population and less than 0.1 percent of the land area of the County.

4.4.2.2 Miami WRF Conveyance Alternative

The cumulative impacts from the implementation to the TRSD's future phased improvement and the other capital improvements project would be the same for the Miami WRF Conveyance Alternative. Based on the analysis of potential effects in this EA, the Miami WRF Conveyance Alternative would have localized, long-term, direct, major, beneficial impact on socioeconomics. Cumulatively, effects of the Miami WRF Conveyance Alternative, when combined with past, present, and reasonably foreseeable future actions, would result in a moderate, direct and indirect, beneficial cumulative impacts on socioeconomics within the CESA. The Miami WRF Conveyance Alternative would have a negligible contribution to the cumulative effect on socioeconomics of the CESA because the Phase I area represents approximately 4 percent of the population and less than 0.1 percent of the land area of the County.

4.4.2.3 No Action Alternative Contribution to Cumulative Impacts

In the No Action Alternative, the lack of adequate infrastructure would continue to influence growth opportunities in the area. Neighborhoods within the Phase I area could become blighted as a result of an increasing number of abandoned properties, contribute to declining home values, and would become a socioeconomic burden on the community and its residents with this alternative. The impacts from the implementation from capital improvements project would be similar for the No Action Alternative as compared to the Proposed Action and Miami WRF Conveyance Alternative with the exception that Phase II and Phase III would also not be implemented by TRSD.

Based on the analysis of potential effects in this EA, the No Action Alternative would have localized, long-term, direct and, major, adverse impacts on socioeconomics. Cumulatively, the effects of the No Action Alternative, when combined with past, present, and reasonably foreseeable future actions, would

result in a minor, direct and indirect, beneficial cumulative impacts on socioeconomics within the CESA. The Miami WRF Conveyance Alternative would have a negligible contribution to the cumulative effect on socioeconomics of the CESA because the Phase I area represents approximately 4 percent of the population and less than 0.1 percent of the land area of the County.

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5.0 SUMMARY OF MITIGATION

5.1 Ownership/Jurisdiction, and General Land Use

No mitigation measures are recommended.

5.2 Floodplains

Proposed Action

- During the final design of the sewer collection system, lift station and WRF, additional analysis would be performed to ensure that the WRF footprint would lie outside of the 100-year floodplain. Berms, additional grading, and/or other features would be incorporated into the final design, as necessary, to provide proper protection to the WRF and lift station from a 500-year flood event.

Miami WRF Conveyance Alternative

- During the final design of the sewer collection system and lift station, additional analysis would be performed to ensure features are incorporated into the final design, as necessary, to provide proper protection of the new lift station from a 500-year flood event.

5.3 Wetlands

No mitigation measures are recommended.

5.4 Cultural Resources

Proposed Action

- Sites AZ V:9:646(ASM) and AZ V:9:653(ASM) shall be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing shall be installed by a qualified archaeologist along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance. An archaeological monitor would perform limited monitoring during ground-disturbing activities in the area between the two sites; this could consist of a monitoring observing activities for a brief time to ensure that cultural subsurface deposits are not present between the sites. This limited monitoring may occur the same day that avoidance fencing is installed.

Miami WRF Conveyance Alternative

- The vicinity of the proposed force main would need to be surveyed for cultural resources and attempts to relocate two archaeological sites would be necessary prior to construction to assess project impacts and effects to those two resources as well as identify any new resources. If the two known NRHP-eligible sites cannot be avoided by project construction activities, a Historic Properties Treatment Plan and MOA for the treatment of cultural resources would be required prior to construction.

5.5 Visual Resources

No mitigation measures are recommended.

5.6 Biological Resources

Proposed Action

- If clearing activities are scheduled during migratory bird breeding season (March 1 to August 31), the Contractor shall have a qualified biologist conduct a field survey to flag active bird nests to be avoided. TRSD's contractor would avoid and maintain a 20-foot buffer around any active bird nests. If the active nests cannot be avoided, the contractor should notify an approved and qualified biologist to evaluate the situation.

Miami WRF Conveyance Alternative

- If clearing activities are scheduled during migratory bird breeding season (March 1 to August 31), the Contractor shall have a qualified biologist conduct a field survey to flag active bird nests to be avoided. TRSD's contractor would avoid and maintain a 20-foot buffer around any active bird nests. If the active nests cannot be avoided, the contractor should notify an approved and qualified biologist to evaluate the situation.

5.7 Water Resources

No mitigation measures are recommended.

5.8 Coastal Resources

No mitigation measures are recommended.

5.9 Environmental Justice and Socioeconomics

No mitigation measures are recommended.

5.10 Miscellaneous Issues (Air Quality, Transportation, Noise)

No mitigation measures are recommended.

6.0 COORDINATION, CONSULTATION AND CORRESPONDENCE

Coordination letters were sent to several resource and land management agencies during the preparation of this EA to gather information and input on the Proposed Action. These agencies included AGFD, USFWS, SHPO and several tribes. Consultation letters, responses and additional communication received are provided in Appendix B and summarized in the respective sections of this EA.

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APPENDIX A – PREVIOUS CULTURAL RESOURCES SURVEYS

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List of Surveys within the Area of Potential Effects

Author/Year (Organization)	Report Title	Agency/Date of Concurrence
Howard 2017 (Logan Simpson)	*Addendum to: A Class III Cultural Resources Survey and Historic Building Reconnaissance Survey for Phase I of the Tri-City Regional Sanitary District Project, Gila County, Arizona*	Pending
Lewandowski et al. 2017 (Logan Simpson)	*A Class III Cultural Resources Survey and Historic Building Reconnaissance Survey for Phase I of the Tri-City Regional Sanitary District Project, Gila County, Arizona*	Pending
Westland Resources 2014 (Westland)	*Cultural Resources Survey of the Proposed Kiser Basin Pipeline*	Not available
Strand 1984 (ASM)	*Cultural Resources Survey of the Proposed Kiser Basin Pipeline*	Not available
Motsinger et al. 1984 (SWCA)	*The Eastern Mining Area 115 Kv Transmission Line Survey: Archaeological Resources in the Salt-Gila Uplands of Central Arizona*	Not available
Barz 1995 (ARS)	*Cultural Resources Survey of Approximately 28.6 Miles of State Route 88, the Apache Trail, between Tortilla Flat and Theodore Roosevelt Dam, Maricopa County, Arizona*	Not available
Stone 1996 (ARS)	*A Cultural Resources Survey of a 0.4 Mile-Long Segment of Existing and New Right-of-Way for US Highway 60 (Mileposts 248.1-248.5) Northwest of Globe, South-Central Gila County, Arizona*	Miller (SHPO) to Lindauer (ADOT) 10/13/1999; Miller (SHPO) to Hollis (FHWA) 10/13/1999
Yoder 1998 (SWCA)	*A Class III Archaeological Survey for the Myberg Basin Hater Diversion Project. Gila County. Central Arizona*	Not available
Hathaway 1999 (ARS)	*Cultural Resources Surveys of 11 Parcels Adjacent to the Arizona Department of Transportation Corridor for U.S. Highway 60 (U.S. 60) Within Globe, in Southern Gila County, Arizona*	Miller (SHPO) to Hollis (FHWA) 10/13/1999
Garcia et al. 2001 (EcoPlan)	*A Cultural Resource Survey of US 60 from the Miami West City Limits to McMillen Wash, Gila County, Arizona*	Collins (SHPO) to Neustadt (ADOT) 7/31/2003; Miller (SHPO) to Hollis (FHWA) 3/27/2001; Miller (SHPO) to Hollis (FHWA) 4/17/2001; Frankeberger (SHPO) to Hollis (FHWA) 12/11/2001; Jacobs (SHPO) to Petty (ADOT) 2/6/2012
Hesse 2002a (SWCA)	*An Archaeological Survey of Six Storm Water Discharge Outfall Locations and Associated BMPS at Solitude Tailings near Miami, Gila County, Arizona*	Not available
Hesse 2002b (SWCA)	*Archaeological Survey of Additional Storm Water Discharge Locations and Associated BMPS at Solitude Unit near Miami, Gila County, Arizona*	Not available
Jolly and Jones 2005 (ACS)	*Archaeological Survey of Additional Storm Water Discharge Locations and Associated BMPS at Solitude Unit near Miami, Gila County, Arizona*	Not available
Luchetta 2006 (Harris)	*A Class III Cultural Resources Survey of Approximately 1.6 Acres near Globe, Gila County, Arizona*	Not available
Touchin 2006 (HDR)	*A Cultural Resources Survey near the US 60/SR 88/Russell Road Intersection, Milepost 247.0, Town of Globe, Gila County, Arizona*	Jacobs (SHPO) to Neustadt (ADOT) 7/3/2006
Pinter and Stokes 2007 (ACS)	*Settlement History along SR88/188 from the Globe Highlands to Tonto National Monument, Arizona*	Not available

Author/Year (Organization)	Report Title	Agency/Date of Concurrence
Boley and Wygant 2010 (WSA)	*A Cultural Resources Survey of Stockpiled Earth for the Ice House Canyon Wash Bridge Project, Gila County, Arizona*	Not available
Buckles et al. 2015 (WestLand)	*A Cultural Resources Inventory of 1,457 Acres at the BHP Copper Cities Facility, near Miami, Gila County, Arizona: BHP Copper Cities Reclamation Planning Support*	Not available
King 2015 (WestLand)	*A Cultural Resources Survey of 1,230 Acres at the Solitude Tailings Storage Facility, near Miami, Gila County, Arizona: BHP Solitude Site Reclamation Planning Support*.	Not available

Notes: ADOT = Arizona Department of Transportation; ACS = Archaeological Consulting Services; ARS = Archaeological Research Services; ASM = Arizona State Museum; EcoPlan = EcoPlan Associates; Harris = Harris Environmental Group; HDR = HDR Engineering; SHPO = State Historic Preservation Office; SWCA = SWCA Environmental Consultants; WestLand = Westland Resources; WSA = William Self Associates.

APPENDIX B – COORDINATION AND CONSULTATION

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LOGAN SIMPSON

March 3, 2017

Ms. Kathryn Leonard
State Historic Preservation Officer
Attn: Mary-Ellen Walsh
State Historic Preservation Office
1100 West Washington
Phoenix, Arizona 85007

RE: Initial Section 106 Consultation for the Tri-City Regional Sanitation District Project

Dear Ms. Leonard:

PACE is planning a three-phase installation of wastewater collection and treatment systems within the Tri-City Regional Sanitation District (TRSD) in Miami/Claypool, Gila County, Arizona. As this project is funded by the United States Department of Agriculture (USDA) Rural Utilities Service (RUS), it is considered a federal undertaking subject to review under Section 106 of the National Historic Preservation Act. Enclosed is a report of a Class III archaeological survey and historic building reconnaissance survey with management recommendations titled "*A Class III Cultural Resources Survey and Historic Building Reconnaissance Survey for Phase I of the Tri-City Regional Sanitary District Project, Gila County, Arizona*" (Lewandowski et al. 2017). Logan Simpson is seeking concurrence with eligibility and management recommendations. Logan Simpson is consulting through delegated authority from USDA RUS per 36 CFR Part 800.2(c)(4). This delegated authority is also documented in 7 CFR § 1970.5(b)(2) of the regulations *Environmental Policies and Procedures* (7 CFR Part 1970). Consulting parties for this project consist of USDA RUS, the State Historic Preservation Office (SHPO), Pueblo of Zuni, Navajo Nation, Tonto Apache Tribe, Salt River Pima-Maricopa Indian Community, Gila River Indian Community, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe, White Mountain Apache Tribe, San Carlos Apache Tribe, and the Hopi Tribe.

The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The project encompasses a three-phased approach based on direction from USDA related to the funding process and availability of funds. Federal funding would be used by the TRSD to construct a new water reclamation facility and associated wastewater collection system to serve the TRSD service area. In addition to the new wastewater treatment facility, the project includes:

- Approximately 166,000 linear feet of 6- to 10-inch sewer collection lines to collect and transfer wastewater within the TRSD service area; installed at an average depth of approximately 6 feet.
- Approximately 25,000 linear feet of force main sewer line, installed between 4 and 6 feet deep.
- Installation of approximately 415 manholes for access to the sewer collection system.
- Design and construction of two regional submersible pump lift stations, as well as several neighborhood lift stations, to convey wastewater to the new wastewater treatment facility.

- New service connections (laterals) from the proposed wastewater collection system to residential and commercial properties, including yard restoration following installation, as needed. TRSD would maintain responsibility of the laterals from the sewer main to the property line, while the property owners would be responsible for maintaining the lateral from the property line to the existing plumbing, following installation by TRSD.
- Abandonment in place and closure of approximately 1,900 existing on-site septic systems and cesspools, in accordance with closure requirements found in Arizona Administrative Code (AAC) R18-9-A309. For each connection the TRSD would obtain a right of entry and construction easement from each owner. Without a granted right of entry, the TRSD would not be able to complete the sewer connection under this project. Fill material used to fill onsite septic systems and cesspools would be obtained from an offsite approved material source.
- Due to the topography of the project area, installation of grinder pumps (a device that grinds waste into a fine slurry and then pumps it into the main gravity sewer line) may be required. The grinder pumps would generally be installed belowground within the disturbed area for the installation of the sewer system lines and connections. The number and location of grinder pumps, if needed, will be determined during the design of the project.

The USDA intends to develop a programmatic agreement (PA) to guide continued consultation for the duration of the project. The enclosed report presents the results of investigations of Phase I of the project; with subsequent studies to be conducted as the project moves forward. Phase I of the project is located within Sections 20–22, and 27–29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. The project occurs on private and municipal lands.The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 ft underground (approximately 35,300 linear ft of new pipeline and manholes) and associated manholes along the sewer lines; the main lift station (approximately 4 acres) and force main (with approximately 7,280 linear ft of pipeline placed between 4 and 6 ft underground); and a new wastewater treatment plant (approximately 59 acres). The area of potential effects (APE) is 8.1 miles/42,600 ft of sewer pipeline and force main corridor; 4.06 acres for a new lift station; and 58.88 block acres for a new wastewater treatment plant.

A portion of the project area has been previously surveyed by WestLand Resources in conjunction with a separate undertaking. The results are reported in *"A Cultural Resources Survey of 1,230 Acres at the Solitude Tailings Storage Facility, near Miami, Gila County, Arizona: BHP Solitude Site Reclamation Planning Support"* (King 2015). Three historic properties were identified within the TRSD APE. These include AZ V:9:648(ASM), AZ V:9:408(ASM), and AZ V:9:652(ASM), all of which are Hohokam artifact scatters.

The remainder of the project area has recently been surveyed by Logan Simpson. The survey results are reported in *"A Class III Cultural Resources Survey and Historic Building Reconnaissance Survey for Phase I of the Tri-City Regional Sanitary District Project, Gila County, Arizona"* (Lewandowski et al. 2017), and is enclosed here for your review and comment.

During the two pedestrian survey projects, three archaeological sites, one in-use structure, and four historic residential subdivisions were identified within the Phase I APE. The three archaeological sites are those previously recorded by WestLand Resources (King 2015). Of these resources, one railroad (in-use structure) has been determined eligible for listing in the National Register of Historic Places (NRHP) (Arizona Eastern Railroad/AZ V:9:392[ASM]); two

sites and one residential subdivision are recommended eligible for listing in the NRHP (AZ V:9:408[ASM], AZ V:9:648[ASM], and Inspiration Townsite Subdivision); one site requires eligibility testing (AZ V:9:652[ASM]); and three residential subdivisions are recommended to be not eligible for listing in the NRHP (Cobre Valle Townsite Subdivision, Lower Miami Subdivision, and East Miami Subdivision).

The Arizona Eastern Railroad/AZ V:9:392(ASM), currently operating at the Union Pacific Railroad, crosses the Phase I APE in several locations. The historic structure has been determined eligible for inclusion in the NRHP under Criterion A with SHPO concurrence (December 7, 2001) under Criterion A. The railroad will be avoided during the project. The proposed project will not have direct or indirect effects on any of the characteristics of the railroad that qualify it for inclusion in the NRHP.

Sites AZ V:9:408(ASM) and AZ V:9:648(ASM) are Hohokam artifact scatters located within the area surveyed for a new wastewater treatment facility. Logan Simpson recommends that the sites are eligible for inclusion in the NRHP under Criterion D. Logan Simpson recommends that construction of the wastewater treatment facility should avoid these sites. Site AZ V:9:648(ASM) is also situated where a proposed sewer collection line meets the proposed wastewater treatment facility. Avoidance may be achieved by re-routing the sewer collection line. If avoidance is not possible, then the sites should be subjected to an appropriate data recovery program.

Site AZ V:9:652(ASM) is a Hohokam artifact scatter located within the areas surveyed for a new wastewater treatment facility. Logan Simpson recommends that the site be considered unevaluated until subsurface investigations can occur. The site should be avoided by ground-disturbing activities. If avoidance is not possible, then the site should be subjected to an appropriate archaeological testing program.

The Inspiration Townsite Subdivision is recommended eligible for inclusion in the NRHP under Criterion A. Because the proposed project will occur in either the previously disturbed roadway or roadway right-of-way; will be subterranean, and will therefore not be visually or physically intrusive to any historic-age property in or adjacent to the project area, no historic properties will be affected. No avoidance or preservation treatments are recommended.

The Cobre Valle Townsite, Lower Miami, and East Miami subdivisions are all recommended not eligible for inclusion in the NRHP under any criteria. No avoidance or preservation treatments are recommended.

Please review the enclosed report and the information provided in this letter. If you find the report adequate and agree with Logan Simpson's eligibility and management recommendations, please indicate your concurrence by signing below. If you have any questions or concerns, please feel free to contact me at 520-884-5500 or thart@logansimpson.com.

Sincerely,

Tina Hart, M.A., RPA
Project Manager

Mary-Ellen Wahl
Signature for Concurrence

3/29/17
Date

Enclosure(s)
Survey report

cc:
Mike Luecker, USDA RUS
Andrea Kosciulek, PACE

SHPO concurs with adequacy of report and eligibility determinations.

We look forward to continued consultation on finding of project effect.

CNAE

USDA SHPO - 2017-0263 (141346)
ARIZONA STATE HISTORIC PRESERVATION OFFICE
United States Department of Agriculture

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Rural Development

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January 23, 2018

Kathryn Leonard, State Historic Preservation Officer
Attn: Mary-Ellen Walsh
State Historic Preservation Office
1100 West Washington
Phoenix Arizona 85007

Re: Section 106 Consultation

Dear Ms. Leonard:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear feet of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cesspools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
City and County: Claypool, Arizona, Gila County. The project is located in unincorporated areas between Miami and Globe.
Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona
Land Ownership: Private and municipal lands.

Area of Potential Effects (APE): The area of potential effects (APE) is 66,000 ft. of sewer pipeline and force main corridor; a new lift station within a 4.06 acre parcel (footprint approximately 20-ft by 20-ft); a new wastewater treatment plant within a 59 acre parcel (footprint approximately 150-ft by 250-ft). See attached aerial map depicting project location.

Summary of efforts to identify Historic Properties: The applicant's environmental consultant completed a Class I Cultural Resource survey that encompasses the Phase I project area and also the future Phase II and III projects areas. The Applicant completed a Class III Survey within the Phase I APE (Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, February, 2017), which received SHPO's concurrence on March 29, 2017 with regard to the adequacy of the report and eligibility determination. The applicant also completed an Addendum to the Class III Survey within the Phase I APE (Addendum to: A Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, July, 2017) that encompasses portions of the Phase I project area. Note that future Phases II and III areas will require additional cultural resource surveys and historic building surveys within the TRSD service boundary and therefore include subsequent NEPA analysis and 106 consultations.

Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Consulting Parties: In addition to SHPO, consulting parties for the project include 11 Federally-recognized Indian Tribes that have cultural ties to this project location: Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Navajo Nation, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe, and the Pueblo of Zuni. These tribes were determined using maps provided by the Arizona State Historic Preservation Office (SHPO) and the Native American Consultation Database (NACD) as maintained by the National Park Service.

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, event, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed

using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

- Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
- Sites AZ V:9:646(ASM) and AZ V:9:653(ASM) shall be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing shall be installed along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance.

Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please check the appropriate box and indicate your concurrence by signing below. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.landford@az.usda.gov.

Sincerely,

Robert M Lanford

ROBERT M LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosures

Phase I Project Area Maps
Class I Cultural Resource Survey
Class III Cultural Resource Survey
Class III Cultural Resource Survey Addendum

Please complete the information below, sign, and return to USDA, Rural Development

FINDING OF EFFECT:

☐ More Information Is Needed (See SHPO Comments)

☐ No Historic Properties Affected

☒ No Adverse Effect

☐ Adverse Effect (See SHPO Comments, including general recommendations for mitigation of adverse effect)

SHPO COMMENTS:

SHPO agrees with avoidance measures but also recommends limited monitoring in area between sites AZ V:9:653 (ASM) and AZ V:9:646 (ASM). Although the eastern portion of site 653 was disturbed, the depth of that disturbance is unknown; thus there remains potential for intact subsurface deposits.

Signature: Mary Eden Walsh Date: 2/22/18

Title: Archaeological Compliance Specialist

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Mr. Leigh Kuwanwisiwma
Director, Cultural Preservation Office
Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039
Phone: (928) 734-2441
Email: lkuwanwisiwma@hopi.nsn.us

Re: Section 106 Consultation

Dear Mr. Kuwanwisiwma:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
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Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona

Land Ownership: Private and municipal lands.

Area of Potential Effects (APE): The area of potential effects (APE) is 66,000-ft of sewer pipeline and force main corridor; a new lift station within a 4.06 acre parcel (footprint approximately 20-ft by 20-ft); a new wastewater treatment plant within a 59 acre parcel (footprint approximately 150-ft by 250-ft). See attached aerial map depicting project location.

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Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

- Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
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Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

Robert M Lanford

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: [signature] Date: 2-9-18

Title: for Kaptyaptewa Director HCPO

Concurrence
439-3
S-7/EF

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Mr. Wally Davis, Jr.
Cultural & NAGPRA Representative
Tonto Apache Tribe
Tonto Apache Reservation #30
Payson, AZ 85541
Phone: (928) 474-5000 x8126
Email: wdavis@tontoapache.org

Re: Section 106 Consultation

Dear Mr. Davis:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
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Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona

Land Ownership: Private and municipal lands.

Area of Potential Effects (APE): The area of potential effects (APE) is 66,000-ft of sewer pipeline and force main corridor; a new lift station within a 4.06 acre parcel (footprint approximately 20-ft by 20-ft); a new wastewater treatment plant within a 59 acre parcel (footprint approximately 150-ft by 250-ft). See attached aerial map depicting project location.

Summary of efforts to identify Historic Properties: The applicant's environmental consultant completed a Class I Cultural Resource survey that encompasses the Phase I project area and also future Phase II and III projects areas. The Applicant completed a Class III Survey within the Phase I APE (Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, February, 2017), which received SHPO's concurrence on March 29, 2017 with regard to the adequacy of the report and eligibility determination. The applicant also completed an Addendum to the Class III Survey within the Phase I APE (Addendum to: A Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, July, 2017) that encompasses portions of the Phase I project area. Note that future Phases II and III areas will require additional cultural resource surveys and historic building surveys within the TRSD service boundary and therefore include subsequent NEPA analysis and 106 consultations. Copies of these reports are available upon request.

Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

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Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

Robert M Lanford

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: 2-5-10

Title: NAGPRA/Cultural Rep

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Mr. Mark Altaha
Tribal Historic Preservation Officer
White Mountain Apache Tribe
Historic Preservation Office, P.O Box 1032
Fort Apache, AZ 85926
Phone: (928) 338-3033
Email: markaltaha@wmat.us

Re: Section 106 Consultation

Dear Mr. Altaha:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

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Land Ownership: Private and municipal lands.

Area of Potential Effects (APE): The area of potential effects (APE) is 66,000-ft of sewer pipeline and force main corridor; a new lift station within a 4.06 acre parcel (footprint approximately 20-ft by 20-ft); a new wastewater treatment plant within a 59 acre parcel (footprint approximately 150-ft by 250-ft). See attached aerial map depicting project location.

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Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

- Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
- Sites AZ V:9:646(ASM) and AZ V:9:653(ASM) shall be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing shall be installed along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance.

Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

White Mountain Apache Tribe

Office of Historic Preservation
PO Box 1032
Fort Apache, AZ 85926
Ph: (928) 338-3033 Fax: (928) 338-6055

To: Robert Lanford, USDA RD CP Specialist,

Date: February 06, 2018

Re: Tri-City Regional Sanitary District Project (Phase I), Miami, Arizona

……

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, dated January 23, 2018. In regards to this, please attend to the following checked items below.

Please refer to the additional notes in regards to the proposed project:

Thank you for allowing the White Mountain Apache tribe the opportunity to review and respond to the above proposal to provide a wastewater collection and treatment system to residents within the Tri-City Regional District, Miami, Arizona…and we've determined the proposed project ***will not have an impact*** on the White Mountain Apache tribe's historic properties and/or traditional cultural properties.

Regardless, any/all ground disturbing activities should be monitored ***"if"*** there are reasons to believe that there are human remains and/or funerary objects present, and if such remains are encountered they shall be treated with respect and handled accordingly until such remains are repatriated to the affiliated tribe(s).

Thank you. We look forward to continued collaborations in the protection and preservation of places of cultural and historical importance.

Sincerely,

Mark T. Altaha

White Mountain Apache Tribe - THPO

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Mr. Alfonso Rodriguez
Archaeological Officer & Economic Development Division Director
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85269
Phone: (480) 789-7740
Email: arodriguez@fmyn.org

Re: Section 106 Consultation

Dear Mr. Rodriguez:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

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Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

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Sincerely,

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Barnaby V. Lewis
Tribal Historic Preservation Officer
Gila River Indian Community
Tribal Historic Preservation Office
P.O. Box 2193
Sacaton, Arizona 85147
Phone: 520-562-7152;
E-mail: Barnaby.Lewis@gric.nsn.us

Re: Section 106 Consultation

Dear Ms. Lewis:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
City and County: Claypool, Arizona, Gila County. The project is located in unincorporated areas between Miami and Globe.

Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona
Land Ownership: Private and municipal lands.

Area of Potential Effects (APE): The area of potential effects (APE) is 66,000-ft of sewer pipeline and force main corridor; a new lift station within a 4.06 acre parcel (footprint approximately 20-ft by 20-ft); a new wastewater treatment plant within a 59 acre parcel (footprint approximately 150-ft by 250-ft). See attached aerial map depicting project location.

Summary of efforts to identify Historic Properties: The applicant's environmental consultant completed a Class I Cultural Resource survey that encompasses the Phase I project area and also future Phase II and III projects areas. The Applicant completed a Class III Survey within the Phase I APE (Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, February, 2017), which received SHPO's concurrence on March 29, 2017 with regard to the adequacy of the report and eligibility determination. The applicant also completed an Addendum to the Class III Survey within the Phase I APE (Addendum to: A Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, July, 2017) that encompasses portions of the Phase I project area. Note that future Phases II and III areas will require additional cultural resource surveys and historic building surveys within the TRSD service boundary and therefore include subsequent NEPA analysis and 106 consultations. Copies of these reports are available upon request.

Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3,

SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

- Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
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Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

Robert M Lanford

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

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TDD 602-280-8705

January 23, 2018

Richard Begay
THPO / NNHPD Director
Navajo Nation
Heritage & Historic Preservation Department
P.O. Box 4950
Window Rock, AZ 86515
Phone: (928) 871-6438
Email: r.begay@navajo-nsn.gov

Re: Section 106 Consultation

Dear Mr. Begay:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
City and County: Claypool, Arizona, Gila County. The project is located in unincorporated areas between Miami and Globe.

Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona
Land Ownership: Private and municipal lands.

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AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3,

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Sincerely,

Robert M Lanford

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

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Signature for Concurrence: _____ Date: _____

Title: _____

USDA
United States Department of Agriculture

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January 23, 2018

Ms. Vernelda Grant
Tribal Historic Preservation Officer
San Carlos Apache Tribe
P.O. Box 0
San Carlos, AZ 85550
Phone: (928) 475-5797
Email: apachevern@yahoo.com

Re: Section 106 Consultation

Dear Ms. Grant:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

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Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

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Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

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Sincerely,

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

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Rural Development

State Office

230 N. 1st Avenue
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January 23, 2018

Mr. Shane Anton
Cultural Preservation Program Manager
Salt River Pima-Maricopa Indian Community
10005 E. Osborn Road
Scottsdale, AZ 85256
Phone: (480) 362-6331
Email: Shane.Anton@srpmic-nsn.gov

Re: Section 106 Consultation

Dear Mr. Anton:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

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Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

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ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

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United States Department of Agriculture

Rural Development

State Office

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January 23, 2018

Mr. Wally Davis, Jr.
Cultural & NAGPRA Representative
Tonto Apache Tribe
Tonto Apache Reservation #30
Payson, AZ 85541
Phone: (928) 474-5000 x8126
Email: wdavis@tontoapache.org

Re: Section 106 Consultation

Dear Mr. Davis:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

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ROBERT LANFORD
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Signature for Concurrence: _____ Date: _____

Title: _____

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
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Phoenix, AZ 85003

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TDD 602-280-8705

January 23, 2018

Mr. Chris Coder
Tribal Archaeologist
Yavapai-Apache Nation
2400 W. Datsi St.
Camp Verde, AZ 86322
Phone: (928) 567-3649
Email: ccoder@yan-tribe.org

Re: Section 106 Consultation

Dear Mr. Coder:

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Summary of efforts to identify Historic Properties: The applicant's environmental consultant completed a Class I Cultural Resource survey that encompasses the Phase I project area and also future Phase II and III projects areas. The Applicant completed a Class III Survey within the Phase I APE (Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, February, 2017), which received SHPO's concurrence on March 29, 2017 with regard to the adequacy of the report and eligibility determination. The applicant also completed an Addendum to the Class III Survey within the Phase I APE (Addendum to: A Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, July, 2017) that encompasses portions of the Phase I project area. Note that future Phases II and III areas will require additional cultural resource surveys and historic building surveys within the TRSD service boundary and therefore include subsequent NEPA analysis and 106 consultations. Copies of these reports are available upon request.

Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

- Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
- Sites AZ V:9:646(ASM) and AZ V:9:653(ASM) shall be avoided by construction activities associated with the Proposed Action. Temporary fencing consisting of lathe and orange plastic fencing shall be installed along the length of the pipeline alignment 50 feet from the surface site boundary to ensure avoidance.

Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

USDA
United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Ms. Linda Ogo
Director, Culture Research Department
Yavapai-Prescott Indian Tribe
530 E. Merritt St.
Prescott, AZ 86301-2038
Phone: (928) 445-8790
Fax: (928) 778-9445
Email: logo@ypit.com

Re: Section 106 Consultation

Dear Ms. Ogo:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
City and County: Claypool, Arizona, Gila County. The project is located in unincorporated areas between Miami and Globe.

Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona
Land Ownership: Private and municipal lands.

Area of Potential Effects (APE): The area of potential effects (APE) is 66,000-ft of sewer pipeline and force main corridor; a new lift station within a 4.06 acre parcel (footprint approximately 20-ft by 20-ft); a new wastewater treatment plant within a 59 acre parcel (footprint approximately 150-ft by 250-ft). See attached aerial map depicting project location.

Summary of efforts to identify Historic Properties: The applicant's environmental consultant completed a Class I Cultural Resource survey that encompasses the Phase I project area and also future Phase II and III projects areas. The Applicant completed a Class III Survey within the Phase I APE (Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, February, 2017), which received SHPO's concurrence on March 29, 2017 with regard to the adequacy of the report and eligibility determination. The applicant also completed an Addendum to the Class III Survey within the Phase I APE (Addendum to: A Class III Cultural Resources Survey and Historic Buildings Reconnaissance Survey for the Tri-City Regional Sanitary District Project, Gila Count, Arizona, prepared by Logan Simpson, July, 2017) that encompasses portions of the Phase I project area. Note that future Phases II and III areas will require additional cultural resource surveys and historic building surveys within the TRSD service boundary and therefore include subsequent NEPA analysis and 106 consultations. Copies of these reports are available upon request.

Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3,

SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

If USDA, Rural Development approves the loan and/or grant request for this project, the following provision would be included in the Letter of Conditions and Construction Documents:

- Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
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Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

Robert M Lanford

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

United States Department of Agriculture

Rural Development

State Office

230 N. 1st Avenue
#206
Phoenix, AZ 85003

Voice 602-280-8701
Fax 855-699-8035
TDD 602-280-8705

January 23, 2018

Mr. Kurt Dongoske
Director, Tribal Historic Preservation Officer
Pueblo of Zuni
Heritage and Historic Preservation Office, P.O. Box 1149
Zuni, NM 87327

Re: Section 106 Consultation

Dear Mr. Dongoske:

U.S. Department of Agriculture (USDA) Rural Development (RD), in administering the Water Environmental Program, has begun environmental review of the subject project based on an application submitted by the Tri-City Regional Sanitary District Project (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act.

Project Name: Tri-City Regional Sanitary District Project (Phase I)

Project Description: The primary objective of the project is to provide a wastewater collection and treatment system to residents within the TRSD and to address public health issues associated with the current wastewater treatment methods. The system design is based on criteria established by the Arizona Department of Environmental Quality (ADEQ).

The scope of Phase I of this project would involve installation of a collection system of 6- to 10-inch sewer collection lines placed approximately 6 to 15 feet underground (approximately 58,000 linear feet of new pipeline and manholes) and associated manholes along the sewer lines; a lift station, force main (with approximately 8,000 linear ft of pipeline placed between 4 and 6 feet underground); and a new wastewater treatment plant. In addition, service connections will be provided between the mainline sewer and each individual residence by 4-inch collection lines. Existing septic tanks or cess pools will be abandoned/decommissioned as per ADEQ requirements.

Project Location:
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Legal Description: The project is located within Sections 20-22, and 27-29 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian. USGS 7.5' Quads: Globe, Arizona
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Number of Surveyed Acres: 52.45 acres (Class III Survey) and 9.8 acres (Class III Survey, Addendum)

Summary: Based on the findings and results of the surveys within area of potential effects (APE) and recommendations of the Applicant's Consultant, RD has determined that the proposed project will have "no adverse effect" on historic properties. No further investigations are recommended.

AZ V:9:392(ASM)/The Arizona Eastern Railway (AER), which has been previously determined eligible for inclusion in the NRHP under Criterion A, is the only historic structure in the APE of the Proposed Action. The railroad crosses the Phase I area multiple times. The sections of the railroad within the Phase I area consist of the railroad and associated features such as crossings, which are under continuous maintenance and would be avoided by construction activities associated with the Proposed Action. Pipelines that are proposed under the railway would be installed using trenchless technologies such as jack-and-bore methods with steel casings, which is required by AER, since they will not allow open cut installation. In addition, AER requirements for jack-and-bore methods meet or exceed SHPO Guidance Point No. 3, SHPO Position on the Appropriateness of Boring Under Sites as an Avoidance Measure.

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Please review the enclosed information and contents of this letter. If you agree with the determination of "no adverse effect" on historic properties, please indicate your concurrence by signing below. We also invite you to let us know if you have any concerns regarding historic properties of religious or cultural importance to your community in the project area. If you have such concerns, we ask that within 30 days of receipt of this letter you provide RD with sufficient information about those properties to allow us to address your concerns during the project planning. If you have any questions or concerns, please do not hesitate to contact me at (602) 280-8748 or by email at robert.lanford@az.usda.gov.

Sincerely,

ROBERT LANFORD
RD CP Specialist, Phoenix, Arizona

Enclosure
Phase I Project Area Maps

Signature for Concurrence: _____ Date: _____

Title: _____

APPENDIX C – BIOLOGICAL EVALUATION

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Biological Evaluation
for
Tri-City Regional Sanitary District Project
Gila County, AZ

Prepared for

Pacific Advanced Civil Engineering, Inc.
7434 East McDonald Drive
Scottsdale, Arizona 85250

Prepared by

Logan Simpson
51 West Third Street, Suite 450
Tempe, Arizona 85281

June 2017

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1. Project Location

This proposed wastewater collection and treatment project is located within the boundaries of the Tri-City Regional Sanitary District (TRSD), located in an unincorporated area of Gila County between the Town of Miami and the City of Globe (Figures 1 and 2). The TRSD encompasses an area of approximately 5.45 square miles. The project limits extend along US Highway 60 (US 60), Arizona State Route 188 (SR 188) and numerous paved residential streets (refer to Figure 2). Project activities would occur within the existing Arizona Department of Transportation (ADOT) right-of-way (ROW) along US 60, ADOT ROW along SR 188, and residential streets within Gila County ROWs. The project area legal description includes portions of Sections 15, 16, 20, 21, 22, 27, 28, and 29, Township 1 North, Range 15 East (Gila and Salt River Baseline and Meridian).

Throughout this Biological Evaluation, the term “project limits” is used to represent the construction footprint (area of disturbance), while the term “project area” also includes surrounding lands, outside but adjacent to the project limits. The term “project vicinity” is used to denote a more expansive landscape context.

2. Project Description

Federal funding would be used by the TRSD to construct a new water reclamation facility (WRF) and associated wastewater collection system to serve the TRSD service area. Based on direction from the US Department of Agriculture (USDA) Rural Development/Rural Utilities Service (RD/RUS), the TRSD has been divided into three geographic areas (Phases I through III; Figure 2) due to the funding process and availability of funds. Project activities predominately consist of the installation of sewer collection lines throughout the TRSD service area, as well as the construction of a new WRF within the Phase I project area. The new WRF would be designed to have an initial treatment capacity of 200,000 gallons per day (gpd), with the ability to expand to a capacity just over 500,000 gpd. This new capacity would accommodate additional service connections made during subsequent Phases of the project and maintain adequate reserve capacity for future growth. It is anticipated that the WRF would be a package plant using a membrane bioreactor (MBR) process. When used for domestic wastewater, this process can produce a high quality effluent that meets the Arizona Department of Environmental Quality’s (ADEQ) Best Available Demonstrated Control Technology and Class A+ Reclaimed Water Standards. The effluent can be used as a reclaimed water source (i.e. urban irrigation) where applicable, and an Arizona Pollutant Discharge Elimination System (AZPDES) permit would be obtained for secondary discharge.

Although the design of the WRF would not be completed until after funding is secured, it is anticipated that the new WRF would only require a minimal footprint for development. TRSD is currently working with BHP Billiton (BHP) on an agreement to use an approximate 59-acre site (Gila County parcel number 207-23-001C), located along Russell Road within the boundary of Phase I of the TRSD service area, for the development of the new WRF. In addition to the design and construction of a new WRF, the following features are included in the project:

- Approximately 166,000 linear feet of 6- to 10-inch sewer collection lines to collect and transfer wastewater within the TRSD service area; installed at an average depth of approximately 6 feet.
- Approximately 25,000 linear feet of force main sewer line, installed between 4 and 6 feet deep.
- Installation of approximately 415 manholes for access to the sewer collection system.
- Design and construction of two regional submersible pump lift stations, as well as several neighborhood lift stations, to convey wastewater to the new WRF.
- New service connections (laterals) from the proposed wastewater collection system to residential and commercial properties, including yard restoration following installation, as needed. TRSD would maintain responsibility of the laterals from the sewer main to the property line, while the property owners would be responsible for maintaining the lateral from the property line to the existing plumbing, following installation by TRSD.
- Abandonment in place and closure of approximately 1,900 existing on-site septic systems and cesspools, in accordance with closure requirements found in Arizona Administrative Code (AAC) R18-9-A309. For each connection the TRSD would obtain a right of entry and construction easement from each owner. Without a granted right of entry, the TRSD would not be able to complete the sewer connection under this project. Fill material used to fill onsite septic systems and cesspools would be obtained from an offsite approved material source.
- Due to the topography of the project area, installation of grinder pumps (a device that grinds waste into fine slurry and then pumps it into the main gravity sewer line) may be required. The grinder pumps would generally be installed belowground within the disturbed area for the installation of the sewer system lines and connections. The number and location of grinder pumps, if needed, will be determined during the design of the project.

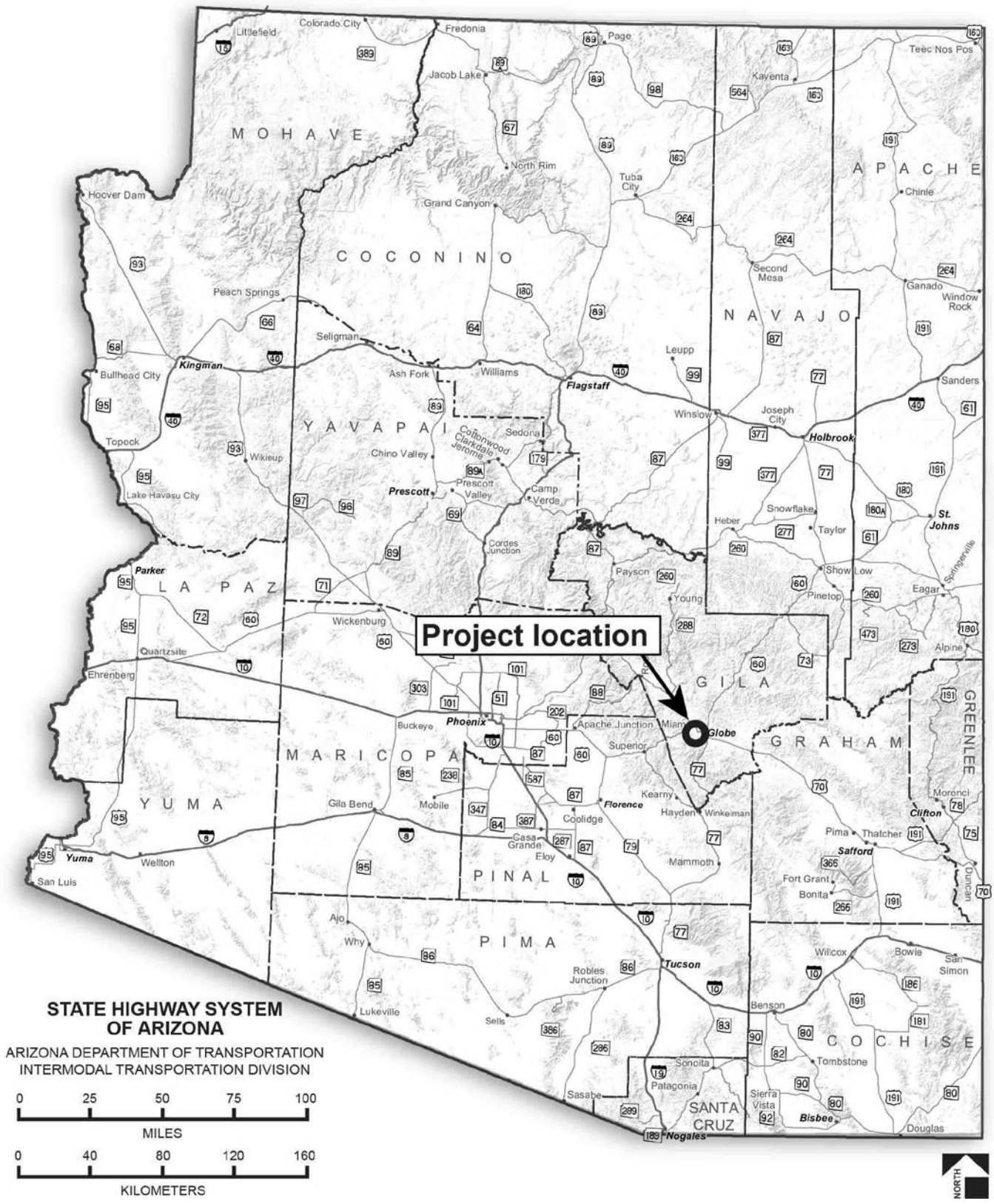


Figure 1. Project location

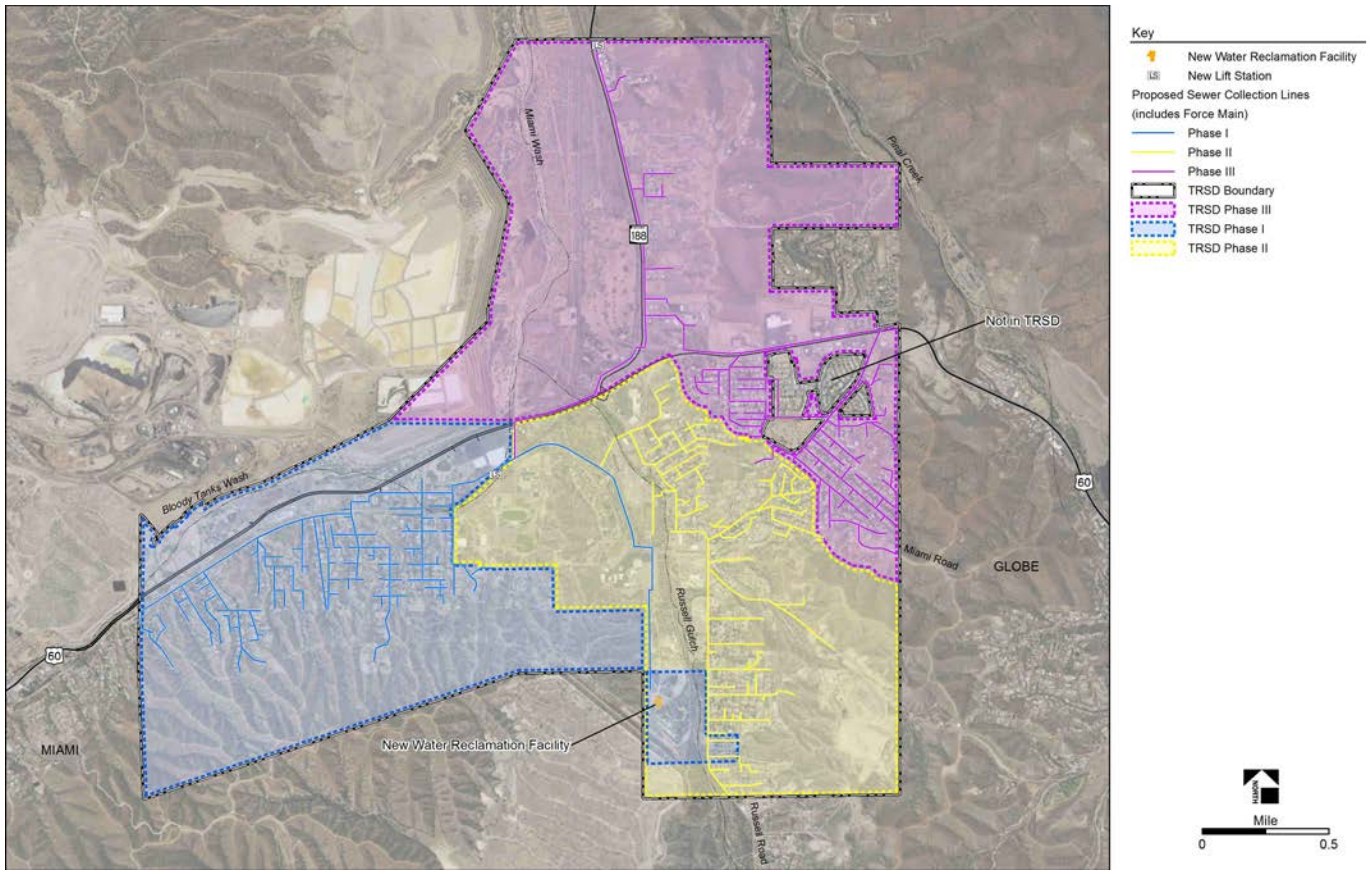


Figure 2. Project area with Phase allocation

3. Location Description

The project area is located within the Apache Highlands Ecoregion, which is best known for its "sky islands" that rise abruptly from surrounding basins comprised of grassland and desert scrub to form forested islands among a "desert sea" (Marshall et al. 2004). The project area is located at elevations from 3,200 feet to 3,800 feet. The project area is located primarily in residential and commercial developments along US 60 and SR 188, with rocky landscapes, rolling hills, and steep canyons present in the surrounding project vicinity.

The project area occurs within the Semidesert Grassland Biotic Community (Brown 1994), which is characterized by the presence of perennial grasses in an otherwise scrub-dominated landscape where stem and leaf succulents are also well represented, although the vegetation in this particular area is transitional with many plant species present that are more indicative of lower-elevation desertscrub communities and higher-elevation chaparral communities. There is a general lack of native vegetation within most of the project limits as the proposed improvements are primarily located within previously disturbed urban areas such as roadway ROWs. Vegetation within the project limits in urban areas typically includes non-native landscape plantings in residential and commercial frontages and roadside weeds within roadway ROWs. Plant species observed throughout the project limits during the site reconnaissance visit include desert broom (*Baccharis sarothroides*), velvet mesquite (*Prosopis velutina*), oaks (*Quercus* spp.*)*, junipers (*Juniperus* spp.), catclaw acacia (*Senegalia greggii*), desert spoon (*Dasylirion wheeleri*), rabbitbrush (*Ericameria nauseosa*), foothills paloverde (*Parkinsonia microphylla*), blue paloverde (*Parkinsonia florida*), tree-of-heaven (*Ailanthus altissima*), and Russian thistle (*Salsola tragus*).

4. Species Identification

The US Fish and Wildlife Service's (USFWS) Information, Planning, and Conservation (IPaC) decision support system was accessed to obtain an official species list for the project area on June 5, 2017 (Consultation No. 02EAAZ00-2017-SLI-0188); the species list was reviewed by a qualified biologist (Samantha Vaughan, Logan Simpson) to determine if any of these special status species have the potential to occur in the project area. None of the species on the USFWS list are expected to occur in the project area for the reasons provided in Table 1; therefore, this project will have no effect on the species listed in Table 1. There is no critical habitat that has been designated or proposed under the Endangered Species Act (16 U.S.C. 1531–1544, as amended) in the project area; therefore, no critical habitat will be affected by this project.

Table 1. Species excluded from evaluation and justification for their exclusion

Species Name	Status[a]	Habitat Requirements	Exclusion Justification
Reptiles			
Northern Mexican gartersnake (*Thamnophis eques megalops*)	ESA LT	Cienegas, stock tanks, large-river riparian woodlands and forests, and streamside gallery forests at elevations from 130 to 8,500 feet. Strongly associated with the presence of a native prey base including leopard frogs and native fish.	No suitable habitat present; there are no aquatic or streamside habitats in the project area
Fish			
Headwater chub (*Gila nigra*)	ESA PT	Medium-sized streams in large, deep pools often associated with cover such as undercut banks or deep places created by trees or rocks.	No suitable present; there are no aquatic habitats (e.g., rivers or streams) present in the project area
Roundtail chub (*Gila robusta*)	ESA PT	Cool to warm waters of rivers and streams from 1,000 to 7,500 feet, often occupying the deepest pools and eddies of large streams. Historically distributed throughout the Colorado River basin, it is currently known to occur in two tributaries of the Little Colorado River, several tributaries of the Bill Williams River basin, the Salt River and four of its tributaries, the Verde River and five of its tributaries, Aravaipa Creek, Eagle Creek, and the upper Gila River in New Mexico.	No suitable present; there are no aquatic habitats (e.g., rivers or streams) present in the project area
Birds			
Southwest willow flycatcher (*Empidonax traillii extimus*)	ESA LE	Dense cottonwood-willow and tamarisk vegetation communities along rivers and streams below 8,500 feet.	No suitable habitat present; there are no riparian habitats present in the project area
Yellow-billed cuckoo (*Coccyzus americanus*)	ESA LT	Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries) below 6,500 feet.	No suitable habitat present; there are no riparian habitats present in the project area
Mammals			
Grey wolf (*Canis lupus*)	PEP	Generalist habitat use, can live anywhere if they have abundant wild prey and excessive numbers are not taken by humans	No suitable habitat present; this species does not occur in urban areas with high levels of human activity
Ocelot (*Leopardus pardalis*)	ESA LE	Typically found in areas with dense vegetation, tropical climate and savannah habitats up to 3,900 feet.	No suitable habitat present; this species does not occur in urban areas with high levels of human activity

Source: US Fish and Wildlife Service Information, Planning, and Conservation (IPaC) decision support system, <http://ecos.fws.gov/ipac/>, accessed June 5, 2017.

[a] Status Definitions: ESA=Endangered Species Act, LT=Listed Threatened, LE=Listed Endangered, PT=Proposed Threatened, PEP= Proposed Experimental Population

5. Mitigation Measures

Arizona Native Plant Law

The project area was surveyed for the presence of protected native plants on September 14, 2015, during a site reconnaissance survey conducted by Logan Simpson biologist Peter Gosling and on November 17, 2016 by Logan Simpson biologist Samantha Vaughan. The following plants protected under the Arizona Native Plant Law (Arizona Revised Statutes, Chapter 7, Article 1:3-915A) were found within the project limits: foothills paloverde (*Parkinsonia microphylla*), blue paloverde (*Parkinsonia florida*), soaptree yucca (*Ucca elata*), and velvet mesquite (*Prosopis velutina*).

Notification to the Arizona Department of Agriculture is required for the destruction or removal of plants protected under the Arizona Native Plant Law. In accordance with the Arizona Native Plant Law, Tri-City Regional Sanitary District should ensure that a Notice of Intent to Clear Land is submitted to the Arizona Department of Agriculture prior to vegetation clearing activities.

Migratory Bird Treaty Act

The project area was surveyed for the presence of migratory birds on September 14, 2015, during a site reconnaissance survey conducted by Logan Simpson biologist Peter Gosling and on November 17, 2016 by Logan Simpson biologist Samantha Vaughan. Bird nests were observed throughout the project area, but particularly in the 59-acre site of the new WRF.

The following mitigation measures should be implemented to address potential impacts to nesting migratory birds during the breeding season; if the breeding season is not able to be entirely avoided by the construction schedule (additional information is included in Appendix A):

Contractor Responsibility

If vegetation clearing or other construction activities will occur during the migratory bird breeding season (March 1–August 31), the contractor shall avoid and maintain a 20 foot buffer of any active bird nests. During the non-breeding season (September 1–February 28) vegetation removal and other construction activities are not subject to this restriction

6. Coordination

A list of special status species that have been documented in the project vicinity was obtained using the USFWS's IPaC decision support system. This project was submitted on October 12, 2015 and updated on June 5, 2017. A copy of the most recent report is included in Appendix B. The Arizona Game and Fish

Department's (AGFD) On-line Environmental Review Tool was accessed on October 12, 2015 and updated on June 5, 2017, to identify special status species that have been documented within 3 miles of the project area, and the most recent report is included in Appendix C.

7. Literature Cited

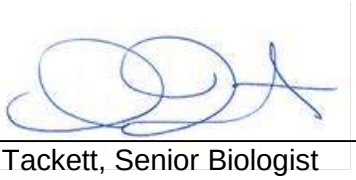
Brown, D. E. 1994. "Semidesert Grassland." In *Biotic Communities: Southwestern United States and Northwestern Mexico*, edited by D. E. Brown, 123–131. University of Utah Press, Salt Lake City.

Marshall, R. M., D. Turner, A. Gondor, D. Gori, C. Enquist, G. Luna, R. Paredes Aguilar, S. Anderson, S. Schwartz, C. Watts, E. Lopez, and P. Comer. 2004. An Ecological Analysis of Conservation Priorities in the Apache Highlands Ecoregion. Prepared by The Nature Conservancy of Arizona, Insituto del Medio Ambiente y el Desarrollo Sustentable del Estado de Sonora, agency and institutional partners.

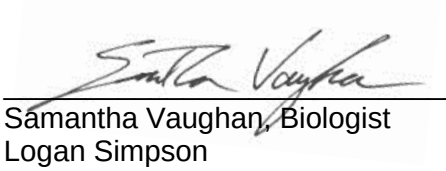
8. Additional Information

Logan Simpson biologist Peter Gosling conducted a field review of the project area on September 14, 2015. Logan Simpson biologist Samantha Vaughan conducted an a field review of the updated project area on November 11, 2016. Photographs and field notes are on file at Logan Simpson.

9. Signatures

Prepared By:  Date: October 12, 2015

Ian Tackett, Senior Biologist
Logan Simpson

Updated By:  Date: June 5, 2017

Samantha Vaughan, Biologist
Logan Simpson

Reviewed/Approved By:  Date: June 5, 2017

Kay Nicholson, Senior Biologist
Logan Simpson

Appendix A

Project Area Photographs

Photograph 1. View to the north across US 60 from the western end of the project area.

Photograph 2. View to the north along Grover Canyon Rd in central part of Phase I (typical residential area in Phase I).

Photograph 3. View to the northwest of the potential new lift station location.

Photograph 4. View to the north at the southern end of the project area.

Photograph 5. View to the northwest in a residential neighborhood.

Photograph 6. View to the south at the north end of the project area along SR 188.

Photograph 7. View to the southwest at the intersection of US 60 and Main Street (i.e., the eastern project boundary).

Photograph 8. View to the north from the southern end of the proposed WRF area.

Appendix B

US Fish and Wildlife Service IPAC Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arizona Ecological Services Field Office
9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517
Phone: (602) 242-0210 Fax: (602) 242-2513
http://www.fws.gov/southwest/es/arizona/
http://www.fws.gov/southwest/es/EndangeredSpecies_Main.html

In Reply Refer To: June 05, 2017
Consultation Code: 02EAAZ00-2017-SLI-0188
Event Code: 02EAAZ00-2017-E-01805
Project Name: Tri-City Regional Sanitary District Project

Subject: Updated 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.

We also advise you to consider species protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668 et seq.). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the Service. The Eagle Act prohibits anyone, without a permit, from taking (including disturbing) eagles, and their parts, nests, or eggs. Currently 1026 species of birds are protected by the MBTA, including the western burrowing owl (Athene cunicularia hypugea). Protected western burrowing owls can be found in urban areas and may use their nest/burrows year-round; destruction of the burrow may result in the unpermitted take of the owl or their eggs.

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

The Division of Migratory Birds (505/248-7882) administers and issues permits under the MBTA and Eagle Act, while our office can provide guidance and Technical Assistance. For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following web site: https://www.fws.gov/birds/management.php. Guidance for minimizing impacts to migratory birds for communication tower projects (e.g. cellular, digital television, radio, and emergency broadcast) can be found at:
https://www.fws.gov/migratorybirds/pdf/management/usfwscommtowerguidance2016update.pdf.

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

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

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 520/670-6144 for projects in southern Arizona.

Sincerely,

/s/

Steven L. Spangle Field Supervisor

Attachment

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 02EAAZ00-2017-SLI-0188

Event Code: 02EAAZ00-2017-E-01805

Project Name: Tri-City Regional Sanitary District Project

Project Type: WASTEWATER PIPELINE

Project Description: Federal funding would be used by the TRSD to construct a new water reclamation facility (WRF) and associated wastewater collection system to serve the TRSD service area. Based on direction from the US Department of Agriculture (USDA), the TRSD has been divided into three geographic areas (Phases I through III; Figure 2) due to the funding process and availability of funds. Project activities predominately consist of the installation of sewer collection lines throughout the TRSD service area, as well as the construction of a new WRF within the Phase I project area. The new WRF would be designed to have an initial treatment capacity of 200,000 gallons per day (gpd), with the ability to expand to a capacity just over 500,000 gpd to accommodate additional service connections made during subsequent Phases of the project and maintain adequate reserve capacity for future growth. It is anticipated that the WRF would be a package plant using a membrane bioreactor (MBR) process. When used for domestic wastewater, this process can produce a high quality effluent that meets the Arizona Department of Environmental Quality's (ADEQ) Best Available Demonstrated Control Technology and Class A+ Reclaimed Water Standards. The effluent can be used as a reclaimed water source (i.e. urban irrigation) where applicable, and an Arizona Pollutant Discharge Elimination System (AZPDES) permit would be obtained for secondary discharge.

Although the design of the WRF would not be completed until after funding is secured, it is anticipated that the new WRF would only require a minimal footprint for development. TRSD is currently working with BHP Billiton (BHP) on an agreement to use an approximate 59-acre site (Gila County parcel number 207-23-001C), located along Russell Road within the boundary of Phase I of the TRSD service area, for the development of the new WRF. In addition to the design and construction of a new WRF, the following features are included in the project:

• Approximately 163,600 linear feet of 6- to 10-inch sewer collection lines to collect and transfer wastewater within the TRSD service area; installed at an average depth of approximately 6 feet.

• Approximately 21,800 linear feet of force main sewer line, installed between 4 and 6 feet deep.

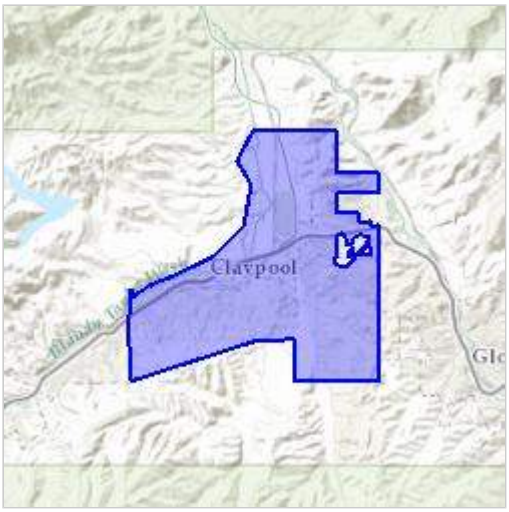
• Installation of approximately 1,750 manholes for access to the sewer

collection system.
• Design and construction of two regional submersible pump lift stations, as well as several neighborhood lift stations, to convey wastewater to the new WRF.
• New service connections (laterals) from the proposed wastewater collection system to residential and commercial properties, including yard restoration following installation, as needed. TRSD would maintain responsibility of the laterals from the sewer main to the property line, while the property owners would be responsible for maintaining the lateral from the property line to the existing plumbing, following installation by TRSD.
• Abandonment in place and closure of approximately 1,900 existing on-site septic systems and cesspools, in accordance with closure requirements found in Arizona Administrative Code (AAC) R18-9-A309. For each connection the TRSD would obtain a right of entry and construction easement from each owner. Without a granted right of entry, the TRSD would not be able to complete the sewer connection under this project. Fill material used to fill onsite septic systems and cesspools would be obtained from an offsite approved material source.
Due to the topography of the project area, installation of grinder pumps (a device that grinds waste into fine slurry and then pumps it into the main gravity sewer line) may be required. The grinder pumps would generally be installed belowground within the disturbed area for the installation of

the sewer system lines and connections. The number and location of grinder pumps, if needed, will be determined during the design of the project.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.41484483232444N110.83004506861613W



Counties: Gila, AZ

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Gray Wolf *(Canis lupus)* Population: Mexican gray wolf, EXPN population No critical habitat has been designated for this species.	Proposed Experimental Population, Non-Essential
Ocelot *(Leopardus (=Felis) pardalis)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4474	Endangered

Birds

NAME	STATUS
Southwestern Willow Flycatcher *(Empidonax traillii extimus)*	Endangered

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/6749

Yellow-billed Cuckoo *(Coccyzus americanus)*	Threatened

Population: Western U.S. DPS
There is a **proposed** critical habitat for this species. Your location is outside the proposed critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3911

Reptiles

NAME	STATUS
Northern Mexican Gartersnake *(Thamnophis eques megalops)*	Threatened

There is a **proposed** critical habitat for this species. Your location is outside the proposed critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7655

Fishes

NAME	STATUS
Headwater Chub *(Gila nigra)*	Proposed Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1373

Roundtail Chub *(Gila robusta)*	Proposed Threatened

Population: Lower Colorado River Basin DPS
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2782

Critical habitats

There are no critical habitats within your project area.

Appendix C

Arizona Game and Fish Department
On-line Environmental Review Tool Report

Arizona Environmental Online Review Tool Report

To conserve Arizon ***outdoor recreation***

Project Name:

Tri-City Regiona

Project Description:

Federal funding acility (WRF) and associated wastewate on from the US Department of Agricult s (Phases I through III; Figure 2) due to the nately consist of the installation of sewer co truction of a new WRF within the Phase eatment capacity of 200,000 gallons per da d to accommodate additional service conr n adequate reserve capacity for future grov membrane bioreactor (MBR) process. When lity effluent that meets the Arizona Department of Environmental Quality's (ADEQ) Best Available Demonstrated Control Technology and Class A+ Reclaimed Water Standards. The effluent can be used as a reclaimed water source (i.e. urban irrigation) where applicable, and an Arizona Pollutant Discharge Elimination System (AZPDES) permit would be obtained for secondary discharge. Although the design of the WRF would not be completed until after funding is secured, it is anticipated that the new WRF would only require a minimal footprint for development. TRSD is currently working with BHP Billiton (BHP) on an agreement to use an approximate 59-acre site (Gila County parcel number 207-23-001C), located along Russell Road within the boundary of Phase I of the TRSD service area, for the development of the new WRF. In addition to the design and construction of a new WRF, the following features are included in the project: • Approximately 163,600 linear feet of 6- to 10-inch sewer collection lines to collect and transfer wastewater within the TRSD service area; installed at an average depth of approximately 6 feet. • Approximately 21,800 linear feet of force main sewer line, installed between 4 and 6 feet deep. • Installation of approximately 1,750 manholes for access to the sewer collection system. • Design and construction of two regional submersible pump lift stations, as well as several neighborhood lift stations, to

convey wastewater to the new WRF. • New service connections (laterals) from the proposed wastewater collection system to residential and commercial properties, including yard restoration following installation, as needed. TRSD would maintain responsibility of the laterals from the sewer main to the property line, while the property owners would be responsible for maintaining the lateral from the property line to the existing plumbing, following installation by TRSD. • Abandonment in place and closure of approximately 1,900 existing on-site septic systems and cesspools, in accordance with closure requirements found in Arizona Administrative Code (AAC) R18-9-A309. For each connection the TRSD would obtain a right of entry and construction easement from each owner. Without a granted right of entry, the TRSD would not be able to complete the sewer connection under this project. Fill material used to fill onsite septic systems and cesspools would be obtained from an offsite approved material source. Due to the topography of the project area, installation of grinder pumps (a device that grinds waste into fine slurry and then pumps it into the main gravity sewer line) may be required. The grinder pumps would generally be installed belowground within the disturbed area for the installation of the sewer system lines and connections. The number and location of grinder pumps, if needed, will be determined during the design of the project.

Project Type:

Waste Transfer, Treatment, and Disposal, Liquid waste/effluent, Sewer line (new - construction in new location)

Contact Person:

Samantha Vaughan

Organization:

Logan Simpson

On Behalf Of:

CONSULTING

Project ID:

HGIS-04511

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

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

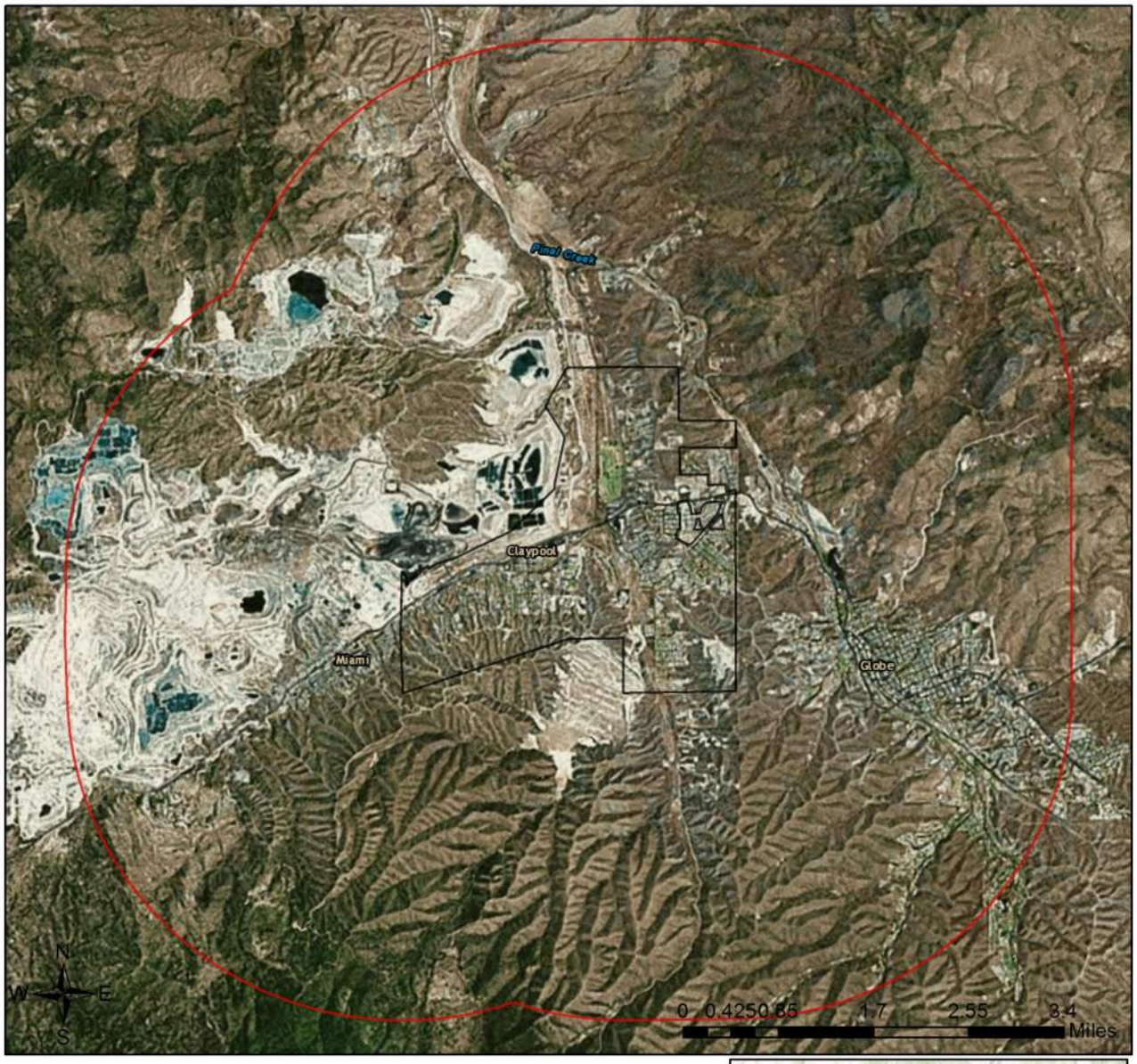
Locations Accuracy Dis
Project locations are assu ntal review. The creator/owner of the Proje ius the correctness of the Project Review Report co

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or pro on (including site map). Once AGFD had r ect reviews. Send requests to:
   Project Evaluatio
   Arizona Game an
   5000 West Carefr
   Phoenix, Arizona
   Phone Number: (
   Fax Number: (62
   Or
   PEP@azgfd.gov
6. Coordination may PA) and/or Endangered Species Act (ESA) PA/ESA analysis or through coordinati

Tri-City Regional Sanitary District Project

Aerial Image Basemap With Locator Map



Project Boundary

Buffered Project Boundary

Project Size (acres): 3,561.54

Lat/Long (DD): 33.4119 / -110.8298

County(s): Gila

AGFD Region(s): Mesa

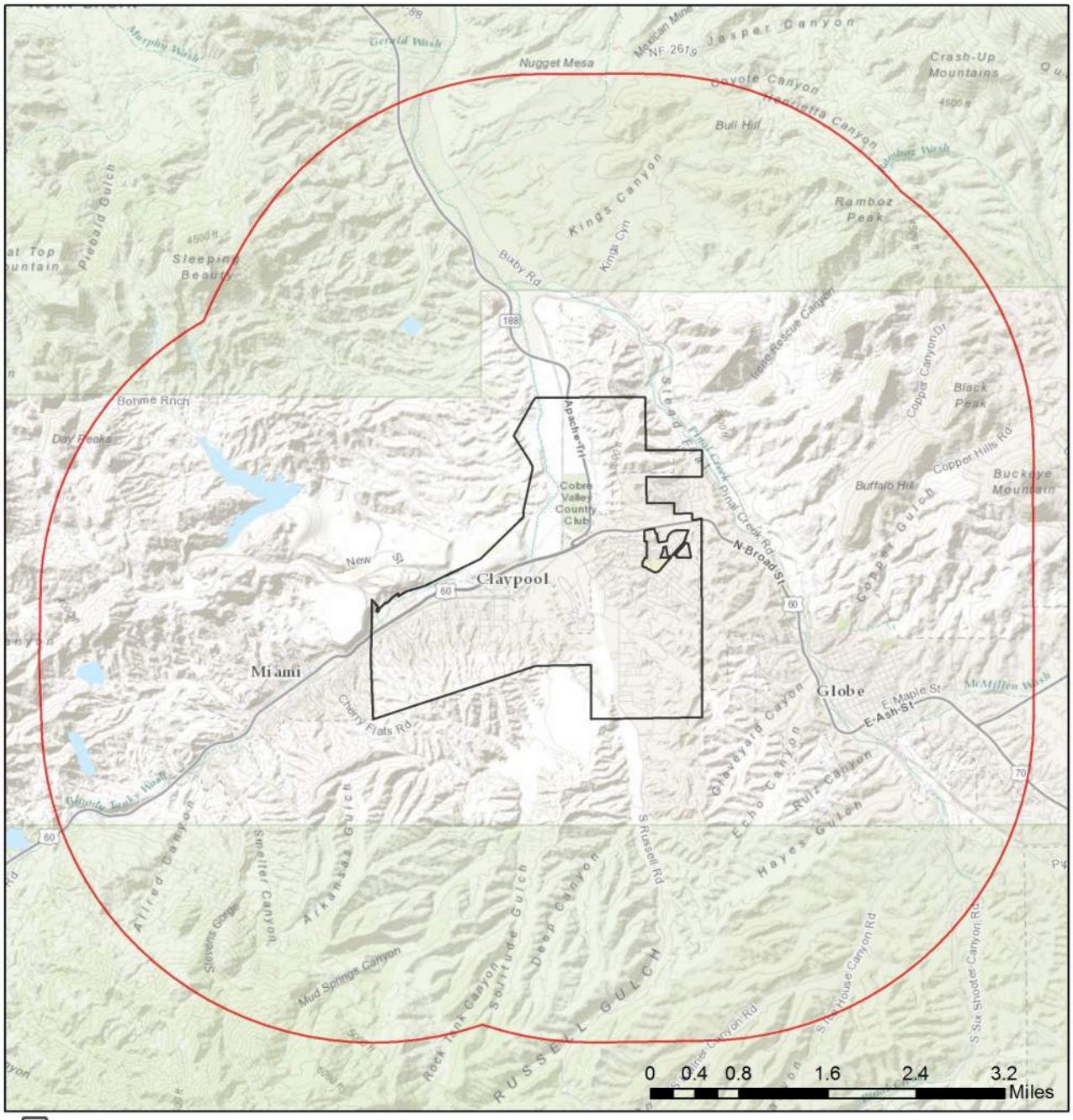
Township/Range(s): T1N, R15E

USGS Quad(s): GLOBE

Service Layer Credits: Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong),

Tri-City Regional Sanitary District Project

Web Map As Submitted By User



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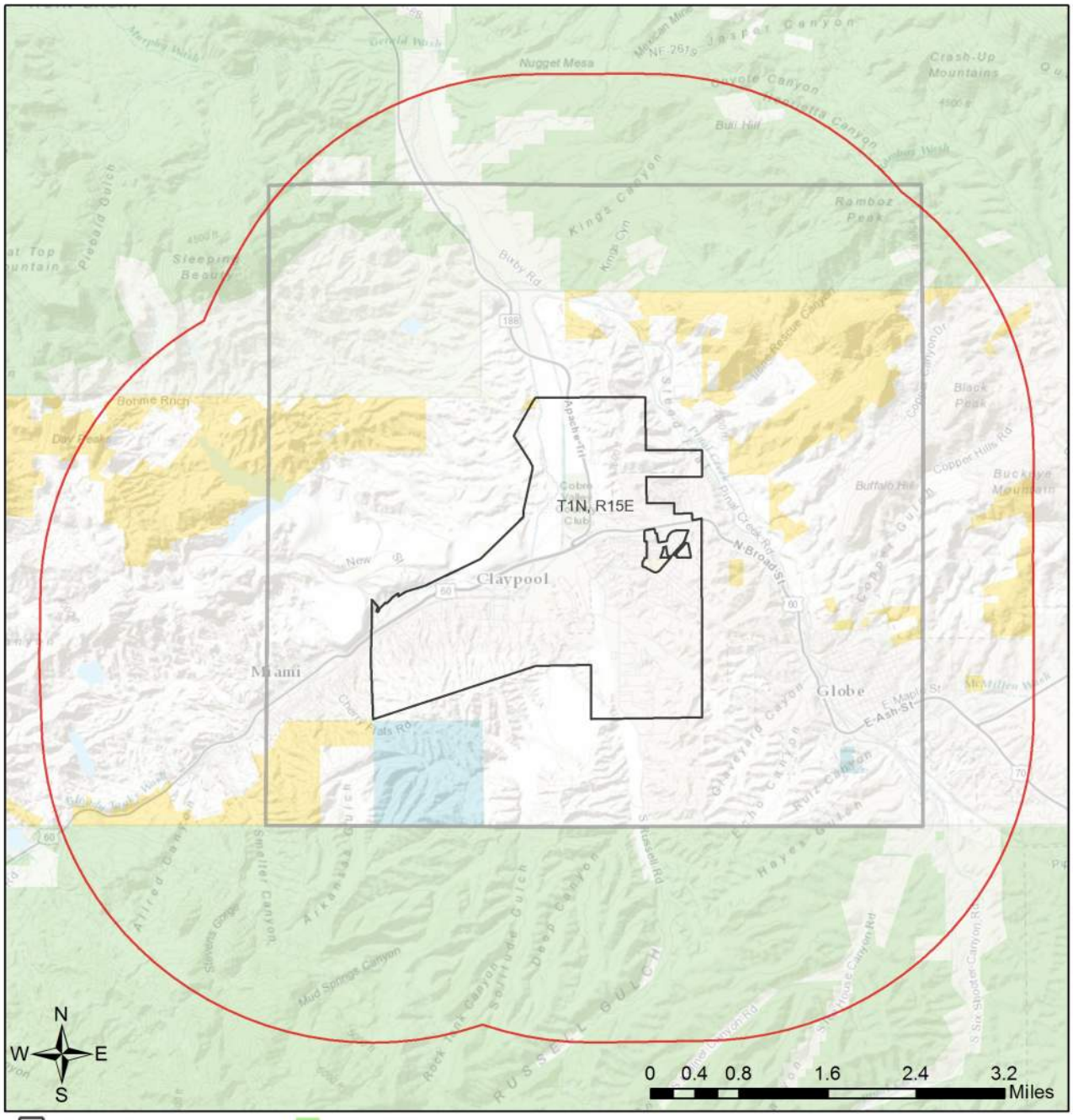
Tri-City Regional Sanitary District Project

Topo Basemap With Township/Ranges and Land Ownership



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

Project Size (acres): 3,561.54

Lat/Long (DD): 33.4119 / -110.8298

County(s): Gila

AGFD Region(s): Mesa

Township/Range(s): T1N, R15E

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Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Agave delamateri	Tonto Basin Agave	SC	S		HS	
CH for Strix occidentalis lucida	Mexican Spotted Owl Designated Critical Habitat					
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Mammillaria viridiflora	Varied Fishhook Cactus				SR	

Note: Status code definitions can be found at https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/
.

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

Scientific Name		BLM	NPL	SGCN
Accipiter gentilis atricapill				1B
Aix sponsa				1B
Ammodramus savannaru ammolegus		S		1B
Ammodramus savannaru perpallidus				1B
Ammospermophilus harri				1B
Anaxyrus microscaphus		S		1B
Aquila chrysaetos		S		1B
Aspidoscelis flagellicauda				1B
Botaurus lentiginosus				1B
Buteo regalis		S		1B
Castor canadensis				1B
Chordeiles minor				1B
Coccothraustes vespertin				1B
Colaptes chrysoides		S		1B
Coluber bilineatus				1B
Corynorhinus townsendii		S		1B
Crotalus cerberus	Arizona Black Rattlesnake			1B
Crotalus tigris	Tiger Rattlesnake			1B
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE		1A
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eugenes fulgens	Magnificent Hummingbird					1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1A
Haliaeetus leucocephalus	Bald Eagle	SC	S	S		1A
Heloderma suspectum	Gila Monster					1A
Idionycteris phyllotis	Allen's Lappet-browed Bat	SC	S	S		1B

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Incilius alvarius	Sonoran Desert Toad					1B
Junco phaeonotus	Yellow-eyed Junco		S			1B
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		1B
Lasiurus blossevillii	Western Red Bat		S			1B
Leopardus pardalis	Ocelot	LE				1A
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Lontra canadensis sonora	Southwestern River Otter	SC				1B
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Melanerpes uropygialis	Gila Woodpecker					1B
Melospiza lincolnii						1B
Melozone aberti						1B
Microtus mexicanus						1B
Micruroides euryxanthus						1B
Myotis occultus				S		1B
Myotis velifer				S		1B
Myotis yumanensis						1B
Nyctinomops femorosacc						1B
Odocoileus virginianus						1B
Panthera onca						1A
Passerculus sandwichens						1B
Perognathus amplus						1B
Phrynosoma solare						1B
Progne subis hesperia				S		1B
Setophaga petechia						1B
Strix occidentalis lucida						1A
Tadarida brasiliensis						1B
Troglodytes pacificus						1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vulpes macrotis	Kit Fox	No Status				1B
Xantusia bezyi	Bezy's Night Lizard		S			1B

Species of Economic and Recreation Importance Predicted within Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Odocoileus hemionus	Mule Deer					
Odocoileus virginianus	White-tailed Deer					1B
Patagioenas fasciata	Band-tailed Pigeon					1C
Pecari tajacu	Javelina					

Species of Economic and Recreation Importance Predicted within Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Puma concolor	Mountain Lion					
Ursus americanus	American Black Bear					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Waste Transfer, Treatment, and Disposal, Liquid waste/effluent, Sewer line (new - construction in new location)

Project Type Recommendations:

Minimize potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g., microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g., livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive to wash all equipment utilized in the project activ Arizona Revised Statutes, Rules R3-4-244 and R3-4 plants, https://agriculture.az.gov/. garding pest and invasive plant control methods incl l control, http://www.usda.gov/wps/ sing, and transportation of wildlife and fish (Restricte information https://www.a

Minimization and mitigatic ality, quantity, chemistry, temperature, and alteratio ods) should be evaluated. Minimize impacts to sprin water use. If dredging is a project component, consi n and other aquatic species (include spawning seasor l early direct coordination with Project Evaluation Pr ams, springs, and/or riparian habitats.

The Department recomme ve species occur within the project area. Avoidance o outside of breeding seasons.

Based on the project type y be required (http://www.epa.gov/).

Based on the project type entered, coordination with State Historic Preservation Office may be required (http://azstateparks.com/SHPO/index.html).

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

Based on the project type entered, coordination with Arizona Department of Environmental Quality may be required (http://www.azdeq.gov/).

Project Location and/or Species Recommendations:

HDMS records indicate that one or more native plants listed on the Arizona Native Plant Law and Antiquities Act have been documented within the vicinity of your project area. Please contact:
Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373
https://agriculture.az.gov/environmental-services/np1

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

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2321 W. Royal Palm Rd, Suite 103
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Phone: 602-242-0210
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