Final Environmental Assessment

TRI-CITY REGIONAL SANITARY DISTRICT
WASTEWATER COLLECTION AND TREATMENT – PHASES 2 & 3
Gila County, Arizona

AUGUST 2022

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FINAL ENVIRONMENTAL ASSESSMENT

FOR

TRI-CITY REGIONAL SANITARY DISTRICT
WASTEWATER COLLECTION AND TREATMENT – PHASES 2 & 3
GILA COUNTY, ARIZONA

PREPARED FOR:

US DEPARTMENT OF AGRICULTURE - RURAL DEVELOPMENT

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ACRONYMS AND ABBREVIATIONS

AAC	Arizona Administrative Code
ac	acre
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AGFD	Arizona Game and Fish Department
APE	area of potential effects
APP	Aquifer Protection Permit
ASM	Arizona State Museum
AZPDES	Arizona Pollutant Discharge Elimination System
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMP	best management practice
CAA	Clean Air Act
CAG	Central Arizona Governments
CESA	cumulative effects study area
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
du	dwelling unit
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMI	Freeport-McMoRan, Inc.
FWCA	Fish and Wildlife Coordination Act
gpd	gallons per day
IPAC	Information, Planning, and Conservation
LF	Linear Feet
MBR	membrane bioreactor
MBTA	Migratory Bird Treaty Act
MGD	million gallons per day
NAAQS	National Ambient Air Quality Standards

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
PACE	Pacific Advanced Civil Engineering, Inc.
$PM_{2.5/}PM_{10}$	particulate matter
PCWWTF	Pinal Creek Wastewater Treatment Facility
PER	preliminary engineering report
RD	Rural Development
ROI	Resolution of Intention
ROW	right-of-way
RUS	Rural Utilities Service
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	sulfur dioxide
SWPPP	stormwater pollution prevention plan
TRSD	Tri-City Regional Sanitary District
TMP	Traffic Management Plan
USC	United States Code
USDA	US Department of Agriculture
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
UST	underground storage tank
Waters	waters of the United States
WQARF	Water Quality Assurance Revolving Fund
WQMP	Water Quality Management Plan
WRF	water reclamation facility
WWTF	wastewater treatment facility

1.0 PROJECT OVERVIEW

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 for Phases 2 and 3. The project is located approximately 80 miles east of Phoenix between the Town of Miami (Miami) and City of Globe (Globe) in Gila County, Arizona and is associated with an overall three-phased approach based on direction from the USDA related to the funding process and availability of funds (Figure 1). The three phases have been generally defined by geography with project activities consisting of the installation of sewer collection lines throughout the TRSD service area and construction of a wastewater reclamation facility (WRF). Phase 2 is located in the central and southeastern portion of TRSD, and Phase 3 is located in the northern portion of TRSD. The Phase 2 and 3 areas include the neighborhoods of Midland City, Central Heights, Little Acres, United States Route 60 (U.S. 60), and State Route 188 (SR 188).

An EA was previously prepared separately for Phase 1. Phase 1 funding was issued by USDA-RD in August of 2018 and the Phase 1 design is currently underway. TRSD has also applied for federal financial assistance under the USDA RD/Rural Utilities Service (RUS) Water and Waste Disposal Loan and Grant Program for Phases 2 and 3. 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. 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 Phases 2 and 3, USDA RD/RUS is required by the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321–4346), to analyze the potential environmental impacts that would occur as a result of funding and constructing 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) prepared by Pacific Advanced Civil Engineering, Inc. (PACE) in accordance with 7 CFR 1780.33 (Pace 2022). The purpose of this EA is to document the environmental impacts that would occur as a result of Phases 2 and 3.

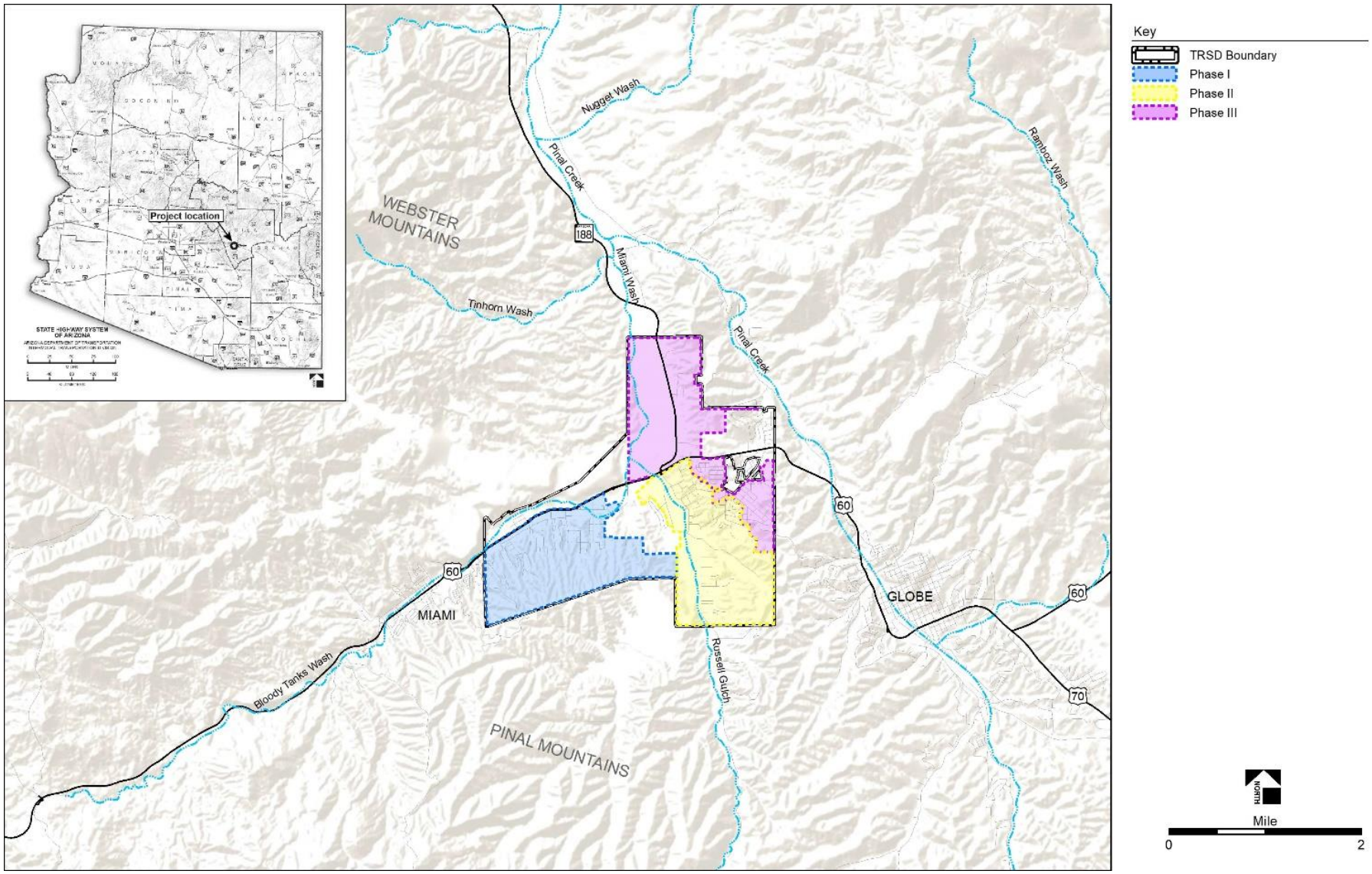

Figure 1. State Location and Project Vicinity Map

1.2 Project Background

Globe and 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. TRSD was formed when the Pinal Sanitary District and the Cobre Valley Sanitary District merged in 2011in order to better manage wastewater treatment and disposal across both districts. The goal of the merger was to improve the quality of life for the Tri-City area of southern Gila County, Arizona by developing a plan to provide a new wastewater collection and treatment system. The TRSD service area encompasses approximately 5.3 square miles and lies within the Salt River Basin Watershed.

Phase 1 design currently consists of the installation of 61,000 +/- linear feet (LF) of gravity mains, 7,600 +/- LF of force main, 658 +/- new residential service connections, a new main lift station and a new 0.20 million gallons per day (MGD) membrane bioreactor (MBR) WRF. Phase 1 would serve a population of approximately 1,500.

Currently, the majority of wastewater collection and treatment in TRSD is achieved through individual on-site septic systems[2] and cesspools. No wastewater collection or treatment infrastructure physically exists at this time. 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 TRSD were constructed prior to 1990. Numerous public complaints and Notices of Violation were recorded between 2007 and 2012. Complaints and violations included situations where 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 was pumped onto the surface to prevent the cesspool from overflowing. It is estimated that nearly 90 percent of residential systems within TRSD are currently 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 2022).

In addition to outdated and poorly functioning septic systems, the majority of the homes within TRSD do not have enough usable land on which to install a replacement septic system. It is estimated that the average lot size in 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 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, some

[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).

[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).

properties within TRSD have been abandoned or used for storage because of the water service being turned off (PACE 2022).

1.3 Purpose and Need

The purpose of the project is to provide wastewater collection and treatment to properties within Phases 2 and 3 of the TRSD service area in order to address the public health issues associated with the current 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 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 90 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 be capable of adequately treating 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 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 allow the wastewater to percolate out from the bottom. Cesspools pose a problem because they are not designed to treat sanitary waste. 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. This type of treatment was outlawed under the CWA and AAC due to the risks associated with using cesspools to treat wastewater (PACE 2022).

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, effluent nitrogen levels can exceed the treatment capacity of the soil, allowing effluent with a high nitrogen concentration to potentially 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.

The diminishing wastewater conditions and the number of abandoned properties and/or the properties with disconnected water due to on-site wastewater management violations has negatively impacted the community. This has led to low property values and less-than-favorable living conditions. The problems that affect TRSD not only affects TRSD, but also the neighboring municipalities. In summary, potential public health, sanitation, and environmental issues arise from the failing wastewater disposal systems within Phases 2 and 3, making it crucial to implement changes to the current methods of wastewater treatment within the TRSD service area (PACE 2022).

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 WRF expansion for Phases 2 and 3 (referred to as the Proposed Action). 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.

1.5 Public and Agency Involvement

TRSD publicly issued a Resolution of Intention (ROI) created to introduce proposed improvements, engineer's best estimate of cost, project financing and estimated user rates and assessment costs. The ROI process required TRSD to post signs conspicuously along the proposed improvements and not more than 300 feet apart for all three phases of the project. Property owners within the TRSD area had an opportunity to protest the project. In early 2019, the protest results came back with only 4.6% protesting. TRSD also carried out voluntary community outreach efforts conveying the current wastewater treatment within TRSD and the need for the project via presentations, meetings, open discussion meetings, handouts, posters, articles and flyers (Appendix B).

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The Proposed Action would include the installation of a new wastewater collection system within Phases 2 and 3 which would convey wastewater from area residents and property owners to the WRF located within Phase 1 (Figure 2). TRSD would use USDA RD/RUS Water and Waste Disposal Loan and Grant Program funding for the project. The WRF (which is yet to be constructed as part of Phase 1) would be expanded as part of this project to be able to handle wastewater associated with Phases 2 and 3. The construction of the WRF has been previously covered in environmental documentation associated with Phase 1. Therefore, only actions associated with its expansion to be able to accommodate Phases 2 and 3 are being analyzed as part of this EA.

The TRSD WRF located within Phase l would be expanded and designed to have a final treatment capacity of 500,000 gallons per day (gpd) and would allow for 1,838 new residential connections in the Phase 2 and 3 areas. The WRF would be a package plant using a 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 east of the TRSD WRF expansion. Approximately 20 tons of biosolids[5] are anticipated to be produced by the WRF on a weekly 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.

In addition to the expansion of the TRSD WRF, the following features are included in the Proposed Action:

- Approximately 51,000 LF (Phase 2) and 47,000 LF (Phase 3) of 8- to-10-inch sewer collection lines to collect and transfer wastewater within Phases 2 and 3 of the TRSD WRF service area; installed at an average depth of approximately six feet.
- Approximately 8,000 LF (Phase 3) of 4-inch to 6-inch force main sewer line; installed between four and six feet deep.
- Installation of approximately 435 manholes for access to the sewer collection system.
- New residential service connections (laterals) from the proposed wastewater collection system to approximately 643 (Phase 2) and 537 (Phase 3) residential 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.

[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/).

[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/basic-information-about-biosolids).

- Effluent flow would be conveyed via a conventional wastewater collection system that relies on gravity to carry flows. However, due to the topography in some portions of the Phases 2 and 3, installation of low-pressure grinder pumps[6] may be required. Where grinder pumps are needed, grinder pump stations would be installed for various groups of homes. The homes would be connected to the gravity lines that would flow to the community grinder. The number and location of grinder pump stations, if needed, would be determined during the project design.

Prior to construction, geotechnical activities would occur to characterize the soil that would be encountered in the area. Although the new sewer collection system would be located within existing right-of-way (ROW) and easements, new ROW and easements may be necessary. Under the Proposed Action, construction of Phases 2 and 3 may occur concurrently or staggered in which one phase is constructed before the other based on available funding. Upon completion of the project, approximately 2,463 residents would directly benefit from this new collection and treatment system and the entire community would begin to see some environmental and economical improvements in the area (PACE 2022).

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 jurisdictional waters (Waters) of the United States, and/or the US 60, installation would be completed 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.
- No substantive hard materials would be encountered during excavation for the sewer line replacement.
- 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.

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

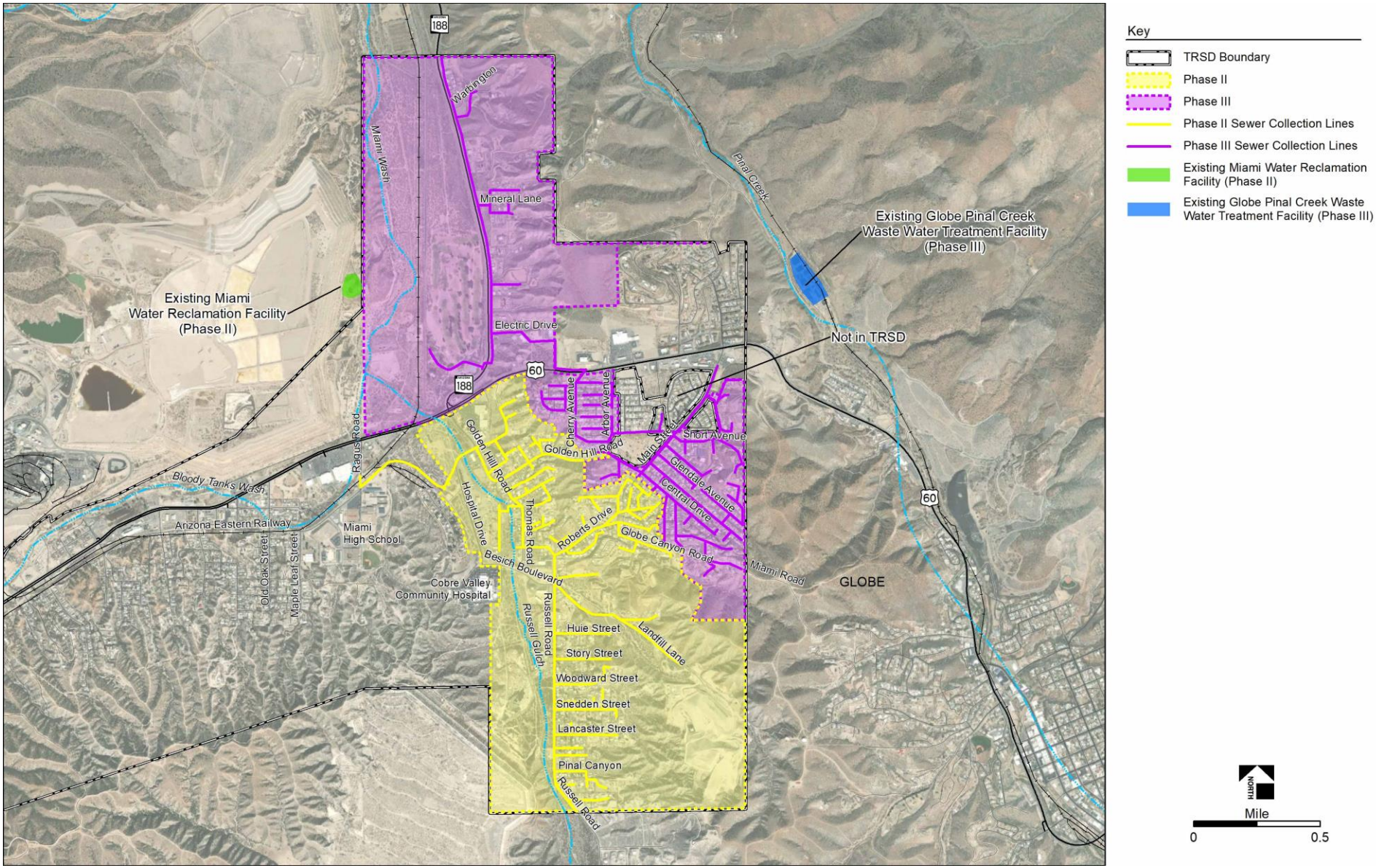

Figure 2. Proposed Action Map

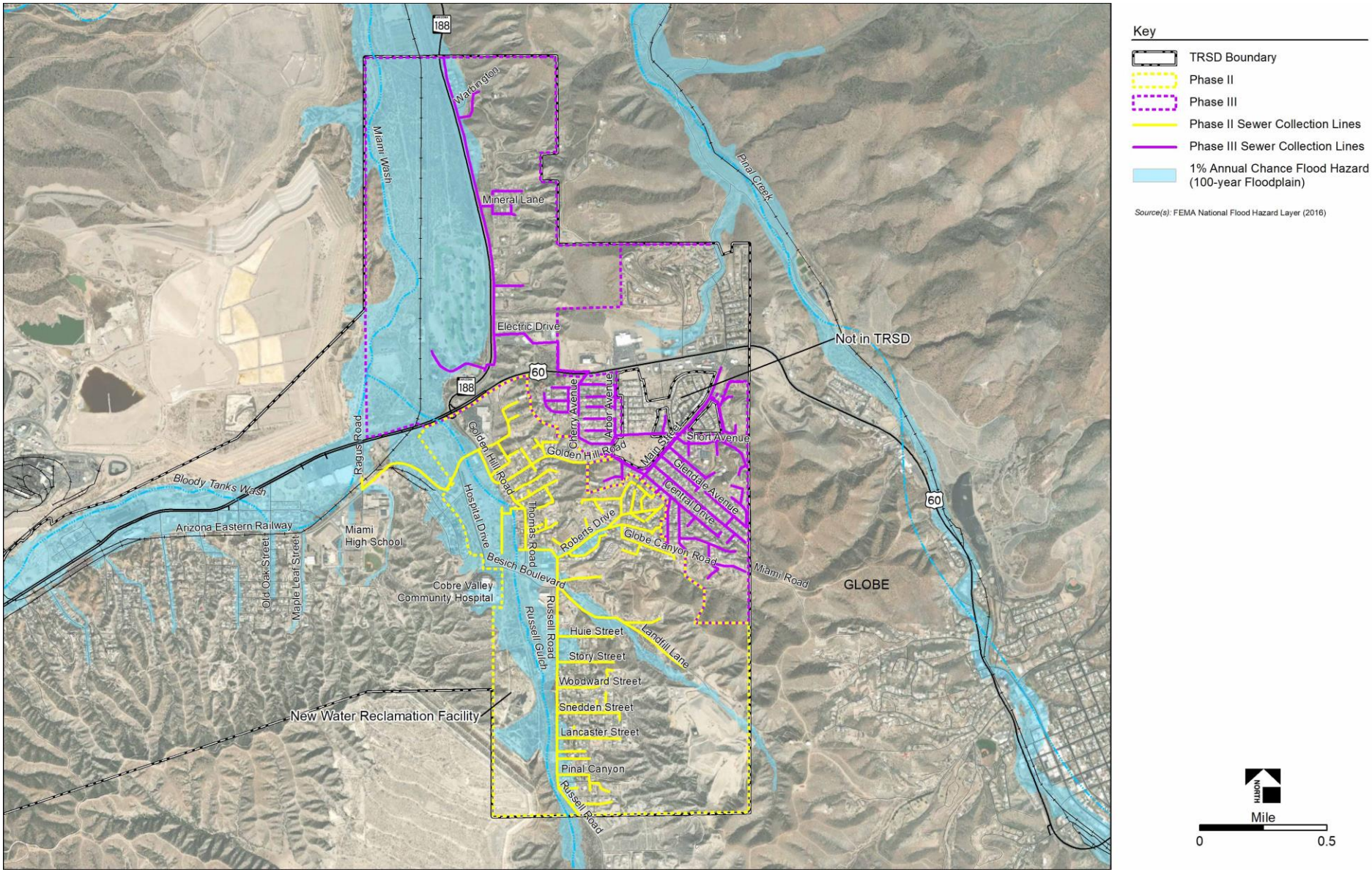

Figure 3. Floodplain Map

2.2 No Action Alternative

Under the No Action Alternative, current wastewater treatment within the TRSD service area would not be improved and there would be no changes to the TRSD infrastructure for the Phase 2 and 3 areas. Under this alternative, individual property owners would continue to be responsible for septic tank operations including maintenance and replacement. The nearly 90 percent of residential systems within the TRSD currently in violation of federal and state regulations would remain in violation unless homeowners replace or repair failing systems, which is not financially feasible for most residents. The condition of the existing wastewater facilities would continue to deteriorate resulting in the increased potential for septic tank overflow, septic tank failure, cesspool overflow and the introduction of pollutants into the environment.

2.3 Alternatives Considered but Eliminated from Detailed Study

2.3.1 Proposed Action with Globe PCWWTF Conveyance Alternative for Phase 2

One variation of the Proposed Action considered was to construct the sewer lines as outlined in the Proposed Action. However, instead of sending flows to the expanded TRSD WRF, wastewater flows associated with Phase 2 would be sent to the existing Globe Pinal Creek Wastewater Treatment Facility (PCWWTF). The Globe PCWWTF is located approximately 1 mile northeast of the Phase 2 area and sits at an elevation of 3,385 feet above sea level. This alternative was eliminated because it would not be cost effective due to the distance and the geography of its location relative to that of the project area.

2.3.2 Proposed Action with Miami WRF and Globe PCWWTF Conveyance Alternatives for Phase 3

Another variation of the Proposed Action was to construct the sewer lines as outlined in the Proposed Action. However, instead of sending flows to the expanded TRSD WRF, wastewater flows associated with Phase 3 would be sent to the existing Miami WRF. Due to the terrain and long distance from Phase 3 of the system to the Miami WRF, this alternative would not be cost effective, and no further consideration was given

Sending flows associated with Phase 3 to the Globe PCWTF was also considered. However, this would result in higher costs due to the distance and geography. Additionally, this alternative was not compatible with Globes future wastewater use.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter provides details of the existing or baseline conditions (affected environment) occurring within and around the Phase 2 and 3 areas and analyzes the potential impacts associated with the two alternatives identified in Chapter 2. If the affected environment indicates that the resource is not present, then an analysis of the potential environmental consequences for that resource was not completed.

3.1 Land Use and Ownership/Jurisdiction

3.1.1 Affected Environment

The majority of Phases 2 and 3 is located within unincorporated Gila County, Arizona and a small portion is located in Globe. The TRSD service area encompasses approximately 5.3 square miles and includes the neighborhoods of Lower Miami, Claypool, Midland City, Central Heights, and Little Acres. The majority of the Phase 2 and 3 areas consists of privately owned land and local roadways. Portions of the project area along US 60 and SR 188 would be within the existing roadway corridor, segments of which are Arizona Department of Transportation (ADOT) and Gila County ROW. Land ownership adjacent to Phases 2 and 3 is private landowners, including several mining operations. Regional land jurisdiction includes Bureau of Land Management (BLM) lands, lands administered by the Arizona State Land Department, 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).

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 contributor 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 community-wide wastewater treatment facilities (Gila County 2003).

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. 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 2 and 3 areas. A review of the 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 Phases 2 and 3 (NRCS 2021).

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 2 and 3 areas consist 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 Impacts to Land Use and Ownership/Jurisdiction

Proposed Action

The Proposed Action consists of the installation of sewer collection lines within Phases 2 and 3 and expansion of the TRSD WRF. Construction impacts would be limited largely to previously disturbed areas, as the sewer collection system would be installed within or adjacent to existing roadway ROW. 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 Gila County. Roadways typically account for the addition of future linear utilities within the ROW, but new ROW/easements may be necessary. Adverse impacts may occur if new ROW/easements are needed from landowners, particularly nearby residents. However, due to the nature of the project, ROW and easement acquisition is expected to be a minor, adverse impact. Construction activities would need to be coordinated with Gila County, ADOT, adjacent residents, and local businesses.

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 community-wide treatment facilities (Gila County 2003). The Proposed Action would help reduce residential and commercial properties from becoming vacant over time because it would provide functional wastewater collection and treatment. This area is not being mined. There would be no change in land use for this parcel because it currently serves as a leach field and the remainder of the parcel not used for the WRF expansion would remain undeveloped and consistent with its present condition.

Effects associated with the Proposed Action would include the potential to encourage new development as a result of the improved wastewater treatment. This would help reduce declining property values so that the current Phase 2 and 3 area land use would remain unchanged. The Proposed Action is anticipated to have no impacts on land jurisdiction but would have short and long-term beneficial impacts on land use.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and expansion of the WRF would not occur, and residents within the Phases 2 and 3 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 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

A floodplain is generally level land subject to periodic flooding from an adjacent body of water. Floodplains are delineated and managed by the Federal Emergency Management Agency (FEMA). 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 support of floodplain development wherever there is a practicable alternative.

3.2.1 Affected Environment

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 man-made 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 100-year flood is a storm having a 1 percent chance of being exceeded in magnitude in any given year. A review of FEMA National Flood Hazard Layer dated 2019 indicates that Phases 2 and 3 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 3). Areas of 500-year floodplain were not identified within Phase 2 and 3 of the TRSD service area. Considerable residential, commercial, and industrial development presently occurs within the 100-year floodplain (Federal Emergency Management Agency [FEMA] Flood Insurance Rate Map 04007C2112D) (FEMA 2022).

3.2.2 Impacts to Floodplains

Proposed Action

Installation of the Phases 2 and 3 sewer collection lines are 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 Expansion– The land to be acquired that is associated with the WRF expansion area would be partially located within the 100-year floodplain. However, the wastewater treatment equipment for Phases 2 and 3 would be located outside the 100-year floodplain. Thus the 100-year floodplain (base elevation) is not anticipated to be altered.

The Proposed Action would not result in an increase in surface water flows that may cause flooding nor would the construction-related activities alter the floodplain elevation either temporarily or permanently. Additionally, best management practices (BMPs) would be implemented to protect project components and the vicinity (refer to Chapter 5.0 for description of BMPs). Therefore, the Proposed Action would have no impacts to floodplains.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and the WRF expansion 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 no wetlands within the Phases 2 and 3 area. Since no wetlands have been identified in the project area, no additional analysis or discussion has been included.

3.4 Water Resources

The Clean Water Act (CWA) is the primary federal statute governing discharge of pollutants into Waters which, in Arizona, include perennial, intermittent, and ephemeral watercourses and their tributaries and adjacent wetlands. The CWA establishes structure for regulating 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. Section 402 of the CWA regulates construction sites on an acre or more of land, municipal, industrial, and commercial facilities discharging wastewater or stormwater into Waters, which are under the jurisdiction of ADEQ. Section 404 of the CWA protects areas vital to surface water, namely wetlands, and regulates dredging, filling, or otherwise altering wetland habitat or Waters, which are under the jurisdiction of the US Army Corps of Engineers. 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.

3.4.1 Affected Environment

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 (WQMP) (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 the Environmental Protection Agency (EPA) to implement strategies and processes to protect water quality (CAG 2016).

3.4.1.1 Surface Water

The Phases 2 and 3 area is within the Upper Salt River watershed. The two principal drainages in Phases 2 and 3 are Bloody Tanks Wash and Russell Gulch, which are ephemeral drainages that flow northwest to Pinal Creek, a tributary of the Salt River (Figure 3). Several unnamed smaller ephemeral drainages occur within the Phases 2 and 3 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) or intermittent streams (dependent on groundwater/high water table) were identified in the Phases 2 and 3 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.

3.4.1.2 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] 2009). 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 2009). Groundwater in the area is located at a depth of 15-to-30 feet (ADWR 2009). 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 2009).

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 pollutants of concern 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 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 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 2022). 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.

Both Globe and Miami have municipal wastewater collection and treatment systems for the areas under their jurisdiction. Freeport-McMorRan Inc. (FMI) completed construction of a new WRF for 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 PCWWTF receives domestic wastewater from residential and commercial sources in Globe. Treated wastewater from this facility is discharged into Pinal Creek and meets all EPA and ADEQ standards (City of Globe 2011).

3.4.2 Impacts to Water Resources

3.4.2.1 Surface Water

Proposed Action

In small segments of the Phases 2 and 3 area, installation of the sewer collection system would involve the need to cross named drainages and other potential Waters. 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 would occur in Waters. This would be necessary where there are existing roadway crossings of the two previously named drainages. 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 58 (Utility Line Activities for Water and Other Substances). All construction activities would comply with the terms and conditions of the Section 404 Permit and Section 401 Water Quality Certification, which would be obtained from the appropriate agencies prior to construction.

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. 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 Phases 2 and 3 area. The sewer collection lines would be generally located within a disturbed roadway ROW below ground level and would be backfilled and compacted to the existing grade level. Surface cover would be replaced to pre-construction conditions. As part of the Arizona Pollutant Discharge Elimination System (AZPDES) Construction General 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.

At full buildout, approximately 500,000 gpd of Class A+ effluent is proposed for discharge to Russell Gulch; located east of the WRF expansion. Russell Gulch is a tributary of Pinal Creek, and it is anticipated that the 500,000 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 toward the WQARF water treatment plant, contributing to the overall environmental clean-up of the region. The addition of 500,000 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 Phases 2 and 3 area would be 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. An increase in runoff affects surrounding properties 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 Phase 1, TRSD prepared an amendment to the CAG Section 208 WQMP. This amendment included an administrative change to identify TRSD as the Designated Management Agency covering the areas of the former Cobre Valley Sanitary District and Pinal Sanitary District, which merged to form the TRSD in 2011. Additionally, TRSD added the plans for the TRSD WRF expansion in this amendment and outlined 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 TRSD WRF (Phase 1) and the expansion (Phases 2 and 3) 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 Permit 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 facilities, no short-term 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 collection system would eliminate potential impacts to surface waters from septic fields and cesspools located in Phases 2 and 3. Long-term 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, 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 habitats are created downstream of the WRF.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and expansion of the WRF would not occur, and residents within Phases 2 and 3 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 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 moderate adverse impacts. Since no construction would occur there would be no short-term impacts to surface waters.

3.4.2.2 Groundwater

Proposed Action

Under the Proposed Action, the installation of a municipal sewer system and WRF expansion would provide a municipal collection and treatment system within TRSD's Phases 2 and 3 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 the TRSD WRF expansion would eliminate potential groundwater pollution from approximately 1,434 residential properties with nitrogen-rich septic tanks in the Phases 2 and 3 area, which could contaminate the upper aquifer. The WRF expansion would be designed in compliance with the CAG Section 208 WQMP.

With the implementation of BMPs (refer to Chapter 5.0), compliance with any/all permits required for the project (including appropriate measures for the removal and/or closure of septic systems), no short-term impacts to groundwater would occur as a result of the Proposed Action. Long-term, 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, beneficial impacts would occur with the removal of failing septic tanks and the potential expedited cleanup of the Pinal Creek WQARF site.

No Action Alternative

Under the No Action Alternative residents within Phases 2 and 3 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 portions of the Phases 2 and 3 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 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, moderate, adverse impacts to groundwater. Since no construction would occur there would be no short-term impacts to groundwater.

3.5 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 USC 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.

Historic properties include prehistoric and historic districts, sites, buildings, structures or objects included in or eligible for inclusion in the National Register of Historic Places (NRHP). 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 also 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 NRHP.

3.5.1 Affected Environment

An assessment of cultural resources was completed for this project and is documented within the report titled, *A Class III Cultural Resources Survey and Historic Building Reconnaissance Survey for Phases II and III of the Tri-City Regional Sanitary District Project, Gila County, Arizona* (Levstik 2022). The Class III cultural resources survey conducted within the Phases 2 and 3 area resulted in the identification of three previously recorded sites, AZ V:9:392(ASM)/Arizona Eastern Railroad, AZ V:2:101(ASM)/US Highway 60, AZ V:5:197(ASM)/State Road 188; one newly recorded site, AZ V:9:687(ASM); and one Isolated Occurrence. The historic building reconnaissance survey conducted during both phases resulted in the documentation of portions of seven subdivisions, five of which are historic in age, which consist of residential and commercial buildings along SR 188, as well as one IO. One of the subdivisions is recommended eligible for the NRHP. The IO is recommended not eligible for inclusion in the NRHP, and no additional research or preservation is required.

Additionally, a separate cultural resources inventory effort was completed which included the proposed TRSD WRF expansion area. The results are documented in the report titled, *A Cultural Resources Inventory of 42 Acres at Miami Gardens near the BHP Solitude Tailings Storage Facility, Gila County, Arizona* (Westland Engineering & Environmental Services 2021). No NRHP-eligible resources or sites were found within the WRF area.

3.5.2 Impacts to Cultural Resources

Proposed Action

The Arizona Eastern Railroad, AZ V:9:392(ASM), has previously been determined eligible for inclusion in the NRHP under Criterion A, with multiple SHPO concurrences related to several previous projects (site card on file, AZSITE). The site is the historic Arizona Eastern Railroad constructed in 1909 to connect the copper mines around Miami to the Gila Valley, Globe, and Northern Railway in Globe. Logan Simpson recommends that any future ground-disturbing undertakings avoid this site. If avoidance is not possible, then the site should be subjected to an appropriate data recovery plan that includes archival research and intensive documentation. The proposed undertaking will not have a direct effect on any of the characteristics of the railroad that qualify it for inclusion in the NRHP. Therefore, no further cultural resources investigations are recommended for the property in advance of the improvement project.

US Route 60, AZ V:2:101(ASM), has previously been determined eligible for inclusion in the NRHP under Criteria A and D, with multiple SHPO concurrences related to several previous projects (site card on file, AZSITE). The site is the historic US Route 60 constructed during the 1920s and early 1930s. The historic structure has been determined eligible for inclusion in the NRHP by SHPO under Criteria A and D. The proposed undertaking will not have a direct effect on any of the characteristics of the road that qualify it for inclusion in the NRHP. Therefore, no further cultural resources investigations are recommended for the property in advance of the planned improvement project.

State Road 188, AZ V:5:197(ASM), has been previously determined eligible for inclusion in the NRHP under Criteria A and D, multiple SHPO concurrences related to several previous projects (site card on file, AZSITE). The site is the historic SR 188 constructed in 1904. The historic structure has been determined eligible for inclusion in the NRHP by SHPO under Criteria A and D. The proposed undertaking will not have a direct effect on any of the characteristics of the road that qualify it for inclusion in the NRHP. Therefore, no further cultural resources investigations are recommended for the property in advance of the improvement project.

AZ V:9:687(ASM) is a late historic-period artifact scatter comprised primarily of wood fragments. It is unlikely that the site contains intact, buried cultural deposits, and it is doubtful that further investigation of the site would yield additional information useful for understanding the mid-twentieth century occupations in the Globe area. The site does not contain integrity of materials, location, feeling, setting, design, workmanship, or association and is therefore recommended not eligible for inclusion to the NRHP. No further work is recommended.

The proposed undertaking will occur in either previously disturbed roadways or roadway ROW and will be subterranean; therefore, it will not be visually or physically intrusive on any historic-age property in or adjacent to the APE; therefore, the planned TRSD improvement project will have no adverse effect on historic properties. Thus, no further cultural resources investigations are recommended within the boundaries of any of the historic building reconnaissance survey area subdivisions, specifically the areas of the subdivisions situated along SR 188.

In the event that previously unreported cultural resources are encountered during ground disturbing activities, all work must immediately cease within 30 meters (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 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 30 meters (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, per Arizona Revised Statute (A.R.S. § 41-844 and 41-865, as appropriate), and work must not resume in this area without authorization from ASM and the USDA.

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 August 19, 2022 (see Appendix A). USDA RD/RUS also consulted with the Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Navajo Nation, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tonto Apache Nation, White Mountain Apache Tribe, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe, and Pueblo of Zuni.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and expansion of the WRF would not occur, and residents within Phases 2 and 3 would continue to use existing individual septic systems. No impacts on cultural resources or historic properties would occur under the No Action Alternative.

3.6 Visual Resources

The term “visual resources” refers to the composite of basic terrain, geologic, 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.

3.6.1 Affected Environment

Human uses and activities adjacent to and within the Phases 2 and 3 area also influence the overall visual character and visual quality of the area. Uses and activities that dominate the visual setting of the Phases 2 and 3 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 sparse, open vegetation. Vegetation within Phases 2 and 3 is sparse and generally consists of low-stature shrubs with isolated and dispersed trees. Views from the Phases 2 and 3 area is 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 Phases 2 and 3 area consist of a variety of materials, styles and colors. Residential structures are generally one-story. The majority of the residences within the Phases 2 and 3 are located within the drainages between the ridgelines. The commercial buildings are typically one-story block structures with parking and signage in front of the business.

The overall scenic quality value of the landscape within the Phases 2 and 3 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 draw attention away from the natural features within and adjacent to Phases 2 and 3.

3.6.2 Impacts to Visual Resources

Proposed Action

The proposed sewer lines, force main sewer lines and lateral service connections would be located beneath previously disturbed areas within Phases 2 and 3. The parcel of land selected for the TRSD WRF expansion is primarily undeveloped with minimal vegetation. However, this parcel would be disturbed during the initial WRF construction as part of Phase 1. Temporary visual impacts associated with construction activities would include earth-moving activities, the presence of construction equipment, the removal of existing vegetation and increased dust that would subtly lower visibility. The project may require installing grinder pumps due to the project area topography. The grinder pumps would generally be installed below ground within the disturbed area for the installation of the sewer system lines and connections and would have no visual impacts. Temporary visual impacts would be

minimized with implementation of BMPs (refer to Chapter 5.0). Adding increased flows of treated effluent to Russell Gulch may result in beneficial impacts with the potential to increase vegetation growth and habitat establishment over the long-term. In addition, long-term, beneficial impacts may result as the improved service would provide increased opportunity for adaptive reuse of vacant or deteriorating properties.

No Action Alternative

Under the No Action Alternative, installation of the municipal sewer system and expansion of the WRF would not occur and residents within Phases 2 and 3 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, adverse impacts that would be minor in severity.

3.7 Biological Resources

Biological resources include general wildlife and vegetation, federal and state protected plant and animal species, and wildlife connectivity. These resources are regulated under various state and federal regulations including the Endangered Species Act of 1973, Arizona Native Plant Law, Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act (BGEPA), and the Fish and Wildlife Coordination Act (FWCA).

3.7.1 Affected Environment

A Biological Evaluation (BE) was prepared for the project to document impacts to biological resources (Appendix C). The Phases 2 and 3 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 Phases 2 and 3, and no aquatic species are anticipated to be present.

Phases 2 and 3 are 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 desert scrub communities and higher-elevation chaparral communities. There is a general lack of native vegetation within most of Phases 2 and 3, as the proposed improvements are primarily located within previously disturbed urban areas such as roadway ROWs. 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*).

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 USC 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. To comply with the requirements of the ESA, a field visit was completed as part of the BE (Appendix C) to identify threatened and endangered species with the potential to

occur within the vicinity of the Phases 2 and 3 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 (IPAC) decision support system, seven species were determined to have some potential to occur within the project vicinity (refer to BE in Appendix C). Due to the high level of urban disturbance, it was determined that there is no suitable habitat within the Phases 2 and 3 area for federally listed species. The project area was also surveyed for the presence of protected native plants and the following plants protected under the Arizona Native Plant Law were found within the project area: foothills paloverde (*Parkinsonia microphylla*), blue paloverde (*Parkinsonia florida*), soaptree yucca (*Ucca elata*), and velvet mesquite (*Prosopis velutina*).

Migratory birds that may be present within Phases 2 and 3 are protected under the Migratory Bird Treaty Act of 1918 (MBTA) (16 USC 703-712, as amended). Bald and golden eagles receive additional protection under BGEPA (16 USC 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 Phases 2 and 3 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. Based on the field survey conducted, bird nests were noted within the project area. There are records of both bald and golden eagles in Gila County; however, no suitable habitat for bald or golden eagles was observed in Phases 2 and 3 during the site visit.

3.7.2 Impacts to Biological Resources

Proposed Action

Under the Proposed Action there would be clearing of trees and shrubs in the areas of sewer line installation and the proposed WRF expansion. 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 Phases 2 and 3 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 Phases 2 and 3. Since protected native plants were found within the project area, notification to the Arizona Department of Agriculture is required for the destruction or removal of plants protected under the Arizona Native Plant Law. Adding increased flows of treated effluent to Russell Gulch may result in impacts with the potential for increased vegetation growth over the long-term. Therefore, with the implementation of BMPs (refer to Chapter 5.0), the Proposed Action would have localized, short-term, negligible, adverse impacts and long-term, negligible, beneficial impacts on vegetation. The Proposed Action would result in negligible, adverse impacts to protected plants.

Wildlife would no longer be at risk of occasional exposure to untreated and improperly treated wastewater discharged into properties within the Phase 2 and 3 areas. 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 measurable because of the abundance of habitat available in the vicinity and surrounding areas outside of Phases 2 and 3. There would be no impacts to

fish species or their aquatic habitat since there are no perennial waterbodies within the Phases 2 and 3 area. Adding increased flows of treated effluent to Russell Gulch may result in impacts with the potential to increase vegetation growth and habitat establishment over the long-term. Therefore, with the implementation of BMPs (refer to Chapter 5.0), the Proposed Action would have localized, short- and long-term, negligible, adverse impacts and short and long-term, negligible, beneficial impacts on general wildlife.

The Proposed Action would have no effect on any federally listed species because there is no suitable habitat within Phases 2 and 3 for any of the seven species identified with the potential to occur within the vicinity. No coordination with the USFWS would be necessary.

The installation of a sewer collection system and WRF expansion would not likely affect migratory birds because of the short duration of these activities. Noise associated with the presence construction workers and equipment may temporarily displace birds present in Phases 2 and 3. 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 Phases 2 and 3, 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 flight ability. Due to the presence of bird nests noted during the biological survey, it is recommended that 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. With the implementation of BMPs (refer to Chapter 5.0) the Proposed Action would result in temporary impacts to migratory birds that would be negligible to minor in severity.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and the WRF expansion would not occur, and residents within Phases 2 and 3 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 are no perennial waterbodies within Phases 2 and 3. Therefore, the No Action Alternative would have localized, short and long-term, minor, adverse impacts on general wildlife and no impact on fish species.

3.8 Environmental Justice

3.8.1 Affected Environment

Title VI of the Civil Rights Act of 1964 states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance". Executive Order (EO) 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, EO 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. The poverty threshold is $26,496 for a family of four based on the 2020 Census. 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 Phases 2 and 3 area, data for census block groups is compared with data for Gila County and the state of Arizona (Tables 1 through 3).

Phases 2 and 3 span portions of U.S. Census Tracts[7] 8, 9 and 10 within Gila County, Arizona. Census Tract 8 within the project area includes Block Group 2, Census Tract 9 includes Block Group 2 and Census Tract 10 includes Block Groups 2, 3, 4 and 5. Because the boundaries of the block groups do not align with Phases 2 and 3, some portions of the block groups extend outside of the Phases 2 and 3 area. Consequently, the exact population and demographic characteristics of the Phases 2 and 3 area may vary from the data presented in Tables 1 through 3.

Table 1. 2020 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 8, Block Group 2	691	465 (67.3)	2 (0.3)	14 (2.0)	6 (0.9)	0 (0.0)	124 (17.9)	80 (11.6)
Census Tract 9, Block Group 2	1,426	930 (65.2)	22 (1.5)	48 (3.4)	11 (0.8)	1 (0.1)	216 (15.1)	198 (13.9)
Census Tract 10, Block Group 2	1,787	1,206 (67.5)	21 (1.2)	71 (4.0)	12 (0.6)	0 (0.0)	211 (11.8)	266 (14.9)
Census Tract 10, Block Group 3	627	451 (71.9)	6 (0.9)	30 (4.8)	0 (0.0)	0 (0.0)	60 (9.6)	80 (12.8)
Census Track 10, Block Group 4	829	528 (63.7)	9 (1.1)	50 (6.0)	1 (0.1)	0 (0.0)	100 (12.1)	141 (17.0)

[7] 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).

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 10, Block Group 5	546	446 (81.7)	1 (0.2)	10 (1.8)	0 (0.0)	0 (0.0)	30 (5.5)	59 (10.8)
Census Tract/ Block Group Total	5,906	4,026 (68.1)	61 (1.0)	223 (3.8)	30 (0.5)	1 (0.0)	741 (12.6)	824 (14.0)
Gila County	53,272	35,904 (67.4)	282 (0.5)	8,928 (16.8)	445 (0.8)	48 (0.1)	3,073 (5.8)	4,592 (8.6)

Source: U.S. Census Bureau 2020.
Note: No. = number; % = percent.

According to 2020 U.S. Census data, the six block groups occurring in Phases 2 and 3 of the TRSD service area have a total population 5,906 people, of which, 68.1 percent identify themselves as White (Table 1). Those identifying as Hispanic, which is considered an ethnicity rather than a race, are the second largest group and comprise 37.8 percent[8] of the population (Table 2). The percent of Hispanic population is more than double the 17.4 percent reported for all of Gila County. While the Hispanic percentage of the population is larger than it is for the County, the percentage of Native Americans (3.8 percent) is much lower than that of Gila County (16.8 percent). The minority population (53.7 percent), which excludes the White non-Hispanic population, is significantly higher within Phases 2 and 3 area than Gila County (23.2 percent).

Table 2. 2020 Hispanic and Minority Population

Area	No. of Hispanic (%)[a]	No. of Minority (%)[b]
Census Tract 8, Block Group 2	313 (45.3)	459 (66.4)
Census Tract 9, Block Group 2	608 (42.6)	906 (63.5)
Census Tract 10, Block Group 2	654 (36.6)	865 (48.4)
Census Tract 10, Block Group 3	191 (30.5)	287 (45.8)
Census Track 10, Block Group 4	318 (38.4)	467 (57.7)
Census Tract 10, Block Group 5	146 (26.7)	187 (34.2)
Census Tract/Block Group Total	2,230 (37.8)	3,171 (53.7)
Gila County	9,283 (17.4)	12,356 (23.2)

Source: U.S. Census Bureau 2020.
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 six block groups (27.7 percent) is lower than that of Gila County (37.2 percent) (Table 3). The percentage of households under the poverty threshold in the Phases 2 and 3 area (19.4 percent) is slightly greater than Gila County (17.9 percent). The percentage of disabled individuals living within the Phases 2 and 3 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).

[8] 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%.

Table 3. Age 60 Years and Over and Households Below Poverty Level

Area	No. of Age 60 Years and Over (%)	No. of Households Below Poverty Level (%)
Census Tract 8, Block Group 2	242 (32.6)	47 (17.2)
Census Tract 9, Block Group 2	375 (31.9)	20 (4.4)
Census Tract 10, Block Group 2	381 (27.4)	158 (25.7)
Census Tract 10, Block Group 3	244 (35.7)	32 (11.8)
Census Tract 10, Block Group 4	207 (25.6)	83 (24.0)
Census Tract 10, Block Group 5	159 (15.9)	125 (28.4)
Census Tract/Block Group Total	1,608 (27.7)	465 (19.4)
Gila County	19,894 (37.2)	3,934 (17.9)

Source: U.S. Census Bureau 2019.
Note: No. = number; % = percent.

3.8.2 Impacts to Environmental Justice

Proposed Action

The Proposed Action would provide approximately 1,434 new service connections to residential and commercial properties in Phases 2 and 3. The affected population within the Phases 2 and 3 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 Phases 2 and 3, regardless of race, age or financial status. Therefore, no disproportionate environmental justice impacts are anticipated to occur as a result of the Proposed Action.

No Action Alternative

Under the No Action Alternative, no disproportionate environmental justice impacts are anticipated to occur as a result.

3.9 Socioeconomics

Social and economic considerations related to project impacts include relocations and displacements, access to existing properties, emergency access, impacts on existing businesses and impacts on neighborhood continuity, community services, schools and recreation facilities.

3.9.1 Affected Environment

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, healthcare, 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 decline in population ranging from 13 percent to 21 percent between 1990 and 2020. 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 service discontinued due to violations of onsite wastewater management, leading to abandoned properties (PACE 2022). Since 2010, the population has been relatively stable with Globe-Miami population at 9,335 in 2020 according to the Arizona Office of Economic Opportunity. Data available from the *2019 American Community Survey 5-year Estimates* from the U.S. Census Bureau indicates that the median household income in the block groups of the Phases 2 and 3 is $38,423, which is slightly lower than Gila County ($43,524), and below the state median household income ($58,945). The unemployment rate is 5.1 percent, which is lower than Gila County (8.8 percent), but equal to the state average of 5.1 percent.

3.9.2 Impacts to Socioeconomics

Proposed Action

Upon completion of the project, Phases 2 and 3 residents would benefit from the new wastewater collection and treatment system. 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 2022). 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 expansion 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, beneficial effects would include the potential to encourage new development as a result of connectivity to the TRSD WRF expansion.

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. 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 restrictions and inconveniences to individual residential and business and brief disconnections in service. Residents may experience temporary traffic interruptions associated with construction of the sewer collection system. This impact would be worse for residents on narrow streets and additional coordination would be necessary to avoid obstructing home access. 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. After completion of Phases 2 and 3, customers would be assessed for their service.

The net effect of the Proposed Action is anticipated to have a substantial effect on socioeconomics within the Phases 2 and 3 area by providing reliable wastewater services to areas that are currently served by aging and failing septic systems. Therefore, with the implementation of BMPs (refer to Chapter 5.0), the Proposed Action would have localized, long-term, moderate, beneficial impacts on socioeconomics and short-term, negligible adverse impacts.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer collection system and the WRF expansion would not occur, and residents of the Phases 2 and 3 service area would continue to use existing individual septic systems and cesspools, most of which are in violation. The potential for these systems to back up or fail would continue to exist resulting in financial hardship for the community and environmental impacts. The maintenance and replacement of septic systems would continue to be the responsibility of the homeowners. Septic system replacement would cost each homeowner approximately $5,000 to $12,000 depending on the type, size and complexity required (Gila County, Arizona, 2014; Gila County, Arizona - Wastewater Department, 2014; SepticTankGuide.com, 2018). Furthermore, this expense may be worsened as many homeowners do not have adequate land and would therefore have to purchase additional property as required by current regulations to accommodate the septic system. Septic system replacement for most residents is not financially feasible. 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 Phases 2 and 3 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, moderate adverse impacts on socioeconomics.

3.10 Air Quality

3.10.1 Affected Environment

The Clean Air Act (CAA) regulates air emissions from mobile (e.g., motor vehicles) and stationary sources (e.g., industrial development). The CAA requires the EPA to establish National Ambient Air Quality Standards (NAAQS) for maximum allowable concentrations of six principal pollutants which can be harmful to the public health and the environment. The six pollutants are carbon monoxide (CO), lead, ozone (O_3), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10})[9], 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. The 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).

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

[9] $PM_{2.5}$ 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.

are generated by a wide range of operations including wastewater treatment plants.[10] The potential impact of any odor depends upon the source of odorous emissions, their concentration, and the frequency and duration of exposure. Odor sources near Phases 2 and 3 include the Miami WRF, Globe PCWWTF and on-site septic system leach fields (AMEC 2011). Vehicle emissions are major sources of CO, NO_2, O_3, and lead. Sources of PM_{10} and $PM_{2.5}$ include the suspension of dust through ground-disturbing activities, road dust from vehicles, and emissions from internal combustion engines (EPA 2021a).

The Phases 2 and 3 service area is located within the Miami Nonattainment Area for SO_2 (2010 standard), and the Miami Nonattainment Area for PM_{10} Moderate (1987 standard) (EPA 2021b; ADEQ 2017c).[11] Smelting metal is a source of SO_2. FMI made improvements to the Miami operations in 2017 to reduce SO_2 emissions. In 2019 EPA approved Arizona's SIP revision for attaining the 2010 1-hour SO_2 NAAQS for the Miami Nonattainment Area, effective April 11, 2019 (ADEQ 2019). Sources of PM_{10} are manufacturing of metal, open burning and wildfires, and windblown dust. PM_{10} in the air in Miami has recently been below NAAQS. ADEQ is submitting a redesignation request for EPA to reclassify the Miami Nonattainment Area as an attainment area. Part of this request, ADEQ must include an updated emissions inventory, modeling demonstration and a strategy for Exceptional Events.

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 2021c). High concentrations of SO_2 may aggravate existing human cardiovascular and respiratory disease; people with asthma, emphysema or bronchitis are the most sensitive. SO_2 also contributes to acid rain, which can damage trees and lead to the acidification of lakes and streams.

3.10.2 Impacts to 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 vehicles, material delivery vehicles, and other equipment during construction of the proposed action, such as portable electrical generators would result in localized, short-term increases in carbon monoxide (CO) and nitrogen oxide 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).

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

[11] 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 2021b).

Potential air emissions from the operation of the TRSD 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[12] 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. The Proposed Action would have localized, long-term, negligible, adverse impacts on air quality from the operation of the facilities and short-term, minor adverse impacts from construction activities. This would be a localized condition that would be discontinued when the Phases are completed.

No Action Alternative

Under the No Action Alternative, installation of the collection system and expansion of the TRSD WRF would not occur, and residents within Phases 2 and 3 would continue to use individual septic systems. The No Action Alternative would not result in construction activities or increases in traffic volumes that would cause an increase in dust and emissions. Criteria pollutants would not be affected, and no impacts on air quality would occur with the No Action Alternative.

3.11 Noise

3.11.1 Affected Environment

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 Phases 2 and 3 area result from traffic activity on US 60, SR 188 and local roads, train-hauling activities into and out of the Phases 2 and 3 area, and mining operations (e.g., industrial machinery, heavy trucks, blasting, etc.). 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 Phases 2 and 3 include a hospital, residential areas, churches and schools.

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

3.11.2 Impacts to Noise

Proposed Action

Potential noise effects would result from the Proposed Action's construction activities and from the operation of the expanded 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" (Federal Highway Administration [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. 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 Phases 2 and 3 that would occur intermittently. Examples of these noise sources include aerators and settling tanks, occasional truck traffic hauling biosolids from the TRSD WRF to the local landfill, workers arriving to and departing from work, and intermittent landscaping and facility maintenance activities. Therefore, with the implementation of BMPs (refer to Chapter 5), the Proposed Action would have localized, long-term, negligible, adverse noise impacts and short-term, adverse noise impacts.

No Action Alternative

Under the No Action Alternative, installation of the collection system and expansion of the WRF would not occur, and ambient noise levels would remain consistent with current levels. Therefore, under the No Action Alternative, there would be no impacts on noise.

3.12 Public Health and Safety

3.12.1 Affected Environment

Approximately 90 percent of residential properties within the TRSD have on-site treatment systems in violation of state and federal regulations. Potential public health and safety concerns are arising from the failing wastewater disposal systems. Current treatment methods require crucial changes and updates. Wastewater in on-site treatment systems could release pollutants to underlying groundwater. Onsite systems that are poorly sized, located or maintained can release large quantities of effluent and overwhelm the ability of the land to treat effluent properly. This could result in nitrogen levels that exceed treatment capacity of the soil, and potentially allow high nitrogen concentrations to reach groundwater in Phases 2 and 3.

A desktop review was conducted for the project area. Based on a review of the U.S. EPA NEPAssist tool (EPA 2021d) and the ADEQ eMaps tool (ADEQ 2021), there are hazardous waste sites located within the project area. The Pinal Creek WQARF site was listed as a Superfund site in 1998 due to groundwater contamination from previous mining activities. The Pinal Creek WQARF site is mapped in and around the Globe, Miami, Claypool and includes drainages and aquifers of Miami Wash, Bloody Tanks Wash, Russell Gulch and Pinal Creek/floodplain. Remediation activities are currently ongoing. Additionally, there are two documented occurrences of leaking underground storage tanks (UST) associated with fuel stations along US 60; both are listed as closed for the status.

For the majority of the project area within TRSD, wastewater collection and treatment is only achieved through individual on-site septic systems and cesspools. Sewage waste is considered hazardous and can pose many health risks to humans and the environment. There are no wastewater collection or treatment infrastructure at this time. The construction of cesspools was prohibited in the US 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 and thus approximately 90% of residential properties with the TRSD have onsite treatment systems in violation of state and federal regulations largely due to improper size, location and maintenance. Potential public health and safety concerns are arising from the failing wastewater disposal system. Numerous public complaints and Notices of Violation were recorded between 2007 and 2012. Complaints and violations included situations where 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.

3.12.2 Impacts to Public Health and Safety

Proposed Action

The Proposed Action would directly improve wastewater treatment conditions within the project area which would improve public health and safety for the community. A new wastewater collection system would be installed, and wastewater would be sent to the expanded TRSD WRF for treatment where it would be treated to meet ADEQ standards. Approximately 2,463 residents would directly benefit from the project. Biosolids produced would be hauled off site to be disposed at a landfill. The risk of pollutants associated with wastewater being released into the environmental would be greatly reduced which would improve the environment and quality of life for the community. Therefore, the Proposed Action would have long-term beneficial impacts on public health and safety that would be minor to moderate in severity. The Proposed Action would not impact any mapped hazardous waste sites within the vicinity and would reduce the potential for further groundwater contamination associated with the Pinal Creek WQARF.

A Phase I Environmental Site Assessment was prepared in April 2017 and included the proposed TRSD WRF area (Stantec Consulting Services, Inc. 2017). The report documented various environmental-related concerns including soil and groundwater contamination associated with the Pinal Creek WQARF site, the presence of nearby leach fields, potential for previous herbicide use, a nearby highway, partially buried metal drum, potential for previous mining activities, various piles of debris and trash present, and potential wells and asbestos-containing materials present. Additional investigations were conducted as part of a Phase II Environmental Site Assessment effort and included soil testing

and investigations of various concerns. The results of the Phase ll Environmental Site Assessment determined that no further action is warranted (Stantec Consulting Services, Inc. 2018).

As with most construction projects, there would be temporary impacts to public health and safety associated with general construction practices. There are numerous roadways, side streets and residential properties within the vicinity of the project area. Since sewer collection lines would be installed within ROW and easement, there may be short-term traffic interruptions associated with work. Additionally, trenching and other earthwork would occur which poses a hazard. This may include hazards and obstructions such as work vehicles and equipment, traffic barricades, etc. Those at the greatest risk would be the construction workers themselves compared to the public. These risks would be reduced by BMPs (refer to Chapter 5.0). A Traffic Management Plan (TMP) would be prepared prior to construction and affected homeowners and business owners would be notified in advance of any access restrictions. Traffic control measures would be implemented to maintain at least one access point to residences and businesses wherever possible. Lastly, 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. Therefore, the Proposed Action would result in short-term, negligible adverse impacts to public health and safety.

No Action Alternative

Under the No Action Alternative, installation of the wastewater collection system and the TRSD WRF expansion would not occur and the wastewater needs of the project area would not be addressed. Individual property owners would continue to be responsible for septic system operations and maintenance. On-site treatment systems would remain (most of which are in violation) and continue to pose great risk to community activities. Septic system replacement is not financially feasible for many property owners. With an average lot size of 3,750 square feet, the majority of the homes within the TRSD do not have enough usable land on which to install a replacement septic system. Therefore, not only would many residents be responsible for costs associated with replacing their own septic systems, but many would also need to purchase additional land to meet the minimum square foot size (10,000 square feet) per Gila County regulations in order to install a septic system. Under the No Action Alternative, it is expected that conditions affecting public health and safety would continue to worsen and residents may continue to abandon properties which would further perpetuate contamination. Existing wastewater systems would continue to fail increasing the potential for waterborne illness from pathogens and degradation of the environment. Current conditions also present an increased risk to groundwater as the failing systems do not adequately treat wastewater which increases the potential for pollutants to enter groundwater. Due to the high number of residences within the project area, the potential risk for contamination would be relatively high with those at the greatest risk being children and elderly. Therefore, under the No Action Alternative, there would be short and long-term adverse impacts on public health and safety.

3.13 Transportation

3.13.1 Affected Environment

US 60 is the primary route through Gila County and links Miami and Globe to the Phoenix metropolitan area to the west. Within the Phases 2 and 3 area, US 60 is classified as an urban principal arterial[13]

[13] 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).

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 Main Street and Golden Hill Road are urban collectors[14]. 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 ROW for several roads within the vicinity, 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 Phases 2 and 3 include the Arizona Eastern Railroad, which principally provides services related to the mining industries. The Arizona Eastern Railroad 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 currently serves Miami, Globe, and the unincorporated areas of Gila County. Within the Phases 2 and 3 area, the Red and Blue Routes operate along US 60 providing several stops and a transfer location between 6:30 am and 6:00 pm during the weekdays. There are no designated bikeways within Phases 2 and 3 (Globe 2014).

3.13.2 Impacts to Transportation

Proposed Action

No construction work or lane closures would occur along US 60 during the installation of Phases 2 and 3 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 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 BMPs (refer to Chapter 5.0), the Proposed Action would have localized, short-term minor adverse impacts.

No Action Alternative

Under the No Action Alternative, installation of a municipal sewer system and expansion of the WRF would not occur, and residents within Phases 2 and 3 would continue to use existing individual septic systems. Transportation and circulation would not be affected. Therefore, there would be no impacts on transportation in the Phases 2 and 3 from the No Action Alternative.

[14] 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)

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.” 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.

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 No Action Alternative 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 No Action Alternative 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.

Cumulative Impacts on Resources

For this analysis, cumulative resource impacts for the CESA are the combined effects of the present and reasonably foreseeable future actions, plus the impacts of the No Action Alternative and the Proposed Action. The levels of cumulative impacts are categorized as major, moderate, or minor. In addition, if the impacts were considered to be none or negligible as a result of the No Action Alternative 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 and the Proposed Action would both result in long-term, adverse and beneficial impacts to resources. The Proposed Action would employ BMPs to reduce adverse impacts to the extent possible. Based on the analysis of impacts, neither the No Action Alternative or the Proposed Action would have long-term, minor, moderate, or major effects on land use and ownership/jurisdiction, floodplains, wetlands, cultural resources, visual resources, biological resources, environmental justice, air quality, noise, public health and safety or transportation. There would be no incremental contribution to the resource’s respective cumulative impacts; therefore, there is no cumulative effects analysis for these resources. The analysis of impacts from the No Action 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 beneficial effects on water resources and socioeconomics.

Based on the analysis of potential effects from the No Action Alternative, there would be long-term, moderate adverse impacts on land use because of the potential change from occupied residential land use to abandoned, vacant parcels within Phases 2 and 3. Cumulatively, effects of the No Action Alternative, when combined with past, present, and reasonably foreseeable future actions (including development and construction of TRSD Phase 1), would result in a minor, 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 Phases 2 and 3 area represent less than 0.1 percent of the land area of the County.

4.1 Water Resources

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 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. This would be a beneficial, cumulative impacts considering the ongoing remediation efforts associated with the Pinal Creek WQARF and TRSD Phase 1. There are also several options for potential effluent reuse for the TRSD WRF expansion that would be beneficial for the community. One option is conveying effluent to mining companies to utilize. Another option is a local golf course; Cobre Valley County Club has expressed interest in using the effluent for irrigation of the course. Lasty effluent could be utilized to create a regional community park lake for recreational use.

Therefore, the incremental effects of the Proposed Action, when added to the past, present and reasonably foreseeable future actions, would result in negligible, beneficial 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 Phases 2 and 3 area represents less than 0.1 percent of the land area of the County.

4.2 Socioeconomics

Under the Proposed Action, the installation of a new municipal sewer system and expansion of the WRF would not occur, and residents within Phases 2 and 3 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 Phases 2 and 3 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 encourage new development as a result of connectivity to a regional WRF. Implementation of TRSD's Phases 2 and 3 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, moderate, beneficial impacts on socioeconomics. This beneficial impact would be improved by the development of the TRSD Phase 1. Cumulatively, effects of the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would result in a negligible, 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 Phases 2 and 3 area represent approximately 4 percent of the population and less than 0.1 percent of the land area of the County.

5.0 BEST MANAGEMENT PRACTICES

As part of the Proposed Action, the contractor(s) will adhere to all federal, state and local requirements and provide appropriate compliance documentation. Additionally, the contractor would adhere to all requirements within the project specifications.

Land Use and Ownership/Jurisdiction

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

Floodplains

- 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.

Cultural Resources

- 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 (RUS), 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 USC 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.

Visual Resources

- 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.

Biological Resources

- 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.
- 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.

Water Resources

- Prior to any project construction, a survey should be conducted to identify any additional Waters 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.
- 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.

Socioeconomics

- 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.

Air Quality

- 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.

Noise

- 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.

Transportation

- During construction activities, work would be limited to the amount of roadway that could be closed while maintaining operation of the road.
- A TMP 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.

6.0 MITIGATION MEASURES

Additional measures to avoid, minimize and mitigate impacts are listed below:

Floodplains

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

Cultural Resources

- As the Arizona Eastern Railroad, AZ V:9:392(ASM) has previously been determined eligible for inclusion in the NRHP under Criterion A, any future ground-disturbing undertakings would avoid this site. If avoidance is not possible, then the site should be subjected to an appropriate data recovery plan that includes archival research and intensive documentation.

Biological Resources

- 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.

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8.0 LIST OF PREPARERS

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APPENDIX A – SHPO CONCURRENCE

USDA
United States Department of Agriculture

SHPO-2022-0741 (164484) Rec: 06-21-22

Rural Development

Show Low Sub-Area Office

1801 W. Deuce of Clubs, Suite 120
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June 21, 2022

Kathryn Leonard, State Historic Preservation Officer
Attn: Mary-Ellen Walsh
State Historic Preservation Office
1100 West Washington Street, Suite 110
Phoenix, Arizona 85007-2957

RE: Section 106 Consultation

Dear Ms. Leonard:

USDA, Rural Development in administering the Rural Utilities Service Water and Environmental Programs is currently undertaking the environmental review of Phases II and III of a proposed project submitted by Tri-City Regional Sanitary District (TRSD). This project is an undertaking subject to the consultation process under Section 106 of the National Historic Preservation Act. Section 106 Consultation was undertaken on January 23, 2018 for Phase I.

Project Name: Tri-City Regional Sanitary District Phases II and III

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 Phases II and III of this project would include the installation of a new wastewater collection system which would convey wastewater from area residents and property owners to the water reclamation facility (WRF) which will be constructed as part of Phase I previously consulted on 1/23/18, however, a new site for the WRF will be selected and an additional Section 106 process will be initiated after final selection of the new site. The WRF will be expanded as part of phases II and will have a final treatment capacity of 500,000 gallons per day (gpd) and would allow for an additional 1,838 new residential connections. Effluent will be discharged into Russell Gulch. Biosolids will be disposed of at a local landfill. Approximately 20 tons of biosolids are projected to be produced.

In addition, approximately 51,000 linear feet (Phase II) and 47,000 linear feet (Phase 3) of 8- to 10- inch sewer collection lines will be installed at an average depth of approximately six feet. Approximately 8,000 linear feet (Phase III) of 4- to 6- inches of force main sewer line will be installed between four and six feet deep. Approximately 435 manholes will be installed and 643 (Phase II) and 537 (Phase III) new residential service connections will be installed on residential properties.

Project Location:
City and County: Claypool, Arizona, Gila County. The project is located in unincorporated areas between Miami and Globe.
Legal Description: Phase II is located within Sections 21, 22 and 27 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian, USGS 7.5' quadrangle, Globe, Arizona, 2007.

Phase III is located within Sections 15, 16, 21, 22 and 27 of Township 1 North, Range 15 East, Gila and Salt River Baseline and Meridian, USGS 7.5' quadrangle, Globe, Arizona, 2007.
Land Ownership: Mostly Private with segments of State (ADOT) and Gila County rights-of-way (ROW).

Area of Potential Effects (APE): The Class III Cultural Resources Survey focused on unpaved areas that are expected to be subject to ground-disturbing construction. The area of potential effects for Phase II is approximately 12.1 acres and .02 acre within the Phase III area.

A building reconnaissance survey focused on areas that may be temporarily visually impacted during construction and covered 21.1 acres within the Phase II area and 10.0 acres within the Phase III area.

The APE of 43.4 acres refers to a noncontiguous area within the Phase II and Phase III areas.

Summary of efforts to identify Historic Properties: The applicant's environmental consultant completed a Class III Cultural Resources Survey and an Historic Building Reconnaissance Survey for Phases II and III of the Tri-City Regional Sanitary District Project, Gila County, Arizona (Prepared by Logan Simpson, February 16, 2022).

Number of Acres Surveyed: 43.4 acres

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 (NSCD) as maintained by the National Park Service

Summary: The proposed undertaking will occur in either previously disturbed roadways or roadway ROW and will be subterranean, therefore, the planned project will not be intrusive either visually or physically on any historic-age property. Based on the findings and results of the surveys within the 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.

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).

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 (928) 532-2270 ext. 104 or by e-mail at loretta.orona@usda.gov.

Respectfully,

LORETTA ORONA
Community Programs Specialist

Attachments
Site Maps
Cultural Resources Survey

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:

Our Historian concurs the Country Club Manor Subdivision is eligible for the NRHP under Criterion A.

Signature: _____ Date: **August 19, 2022**

Title: **Archaeological Compliance Specialist**

APPENDIX B – COORDINATION AND CONSULTATION

TRI-CITY REGIONAL SANITARY DISTRICT (TRSD)

WASTEWATER COLLECTION AND TREATMENT SYSTEM

Improving Quality of Life

The TRSD Wastewater Collection and Treatment System Project was developed to cost effectively replace the community's failing, failed or substandard septic systems and cesspools with a new system that meets the Arizona Department of Environmental Quality (ADEQ) requirements.

- Achieves compliance with State regulations
- 57.5% grant funding by USDA
- Connection to properties and existing system decommissioning included
- Increases property values
- Improves environmental safety
- Low monthly cost

CAPITAL COSTS ESTIMATES & FUNDING

	PROJECT COST	LOAN (43%)	GRANT (57%)
PHASE I	$ 28,230,000	$ 12,000,000	$ 16,230,000
PHASE II	$ 20,482,000	$ 8,807,260	$ 11,674,740
PHASE III	$ 21,043,000	$ 9,048,490	$ 11,994,510
TOTAL	$ 69,755,000	$ 29,855,750	$ 39,899,250

IMPACT

- Residents and businesses will not see cost approximately 2-2$^{1}/_{2}$ years
- Monthly rate estimate is about $45-47 per Equivalent Dwelling Unit (EDU) per month

PROJECT

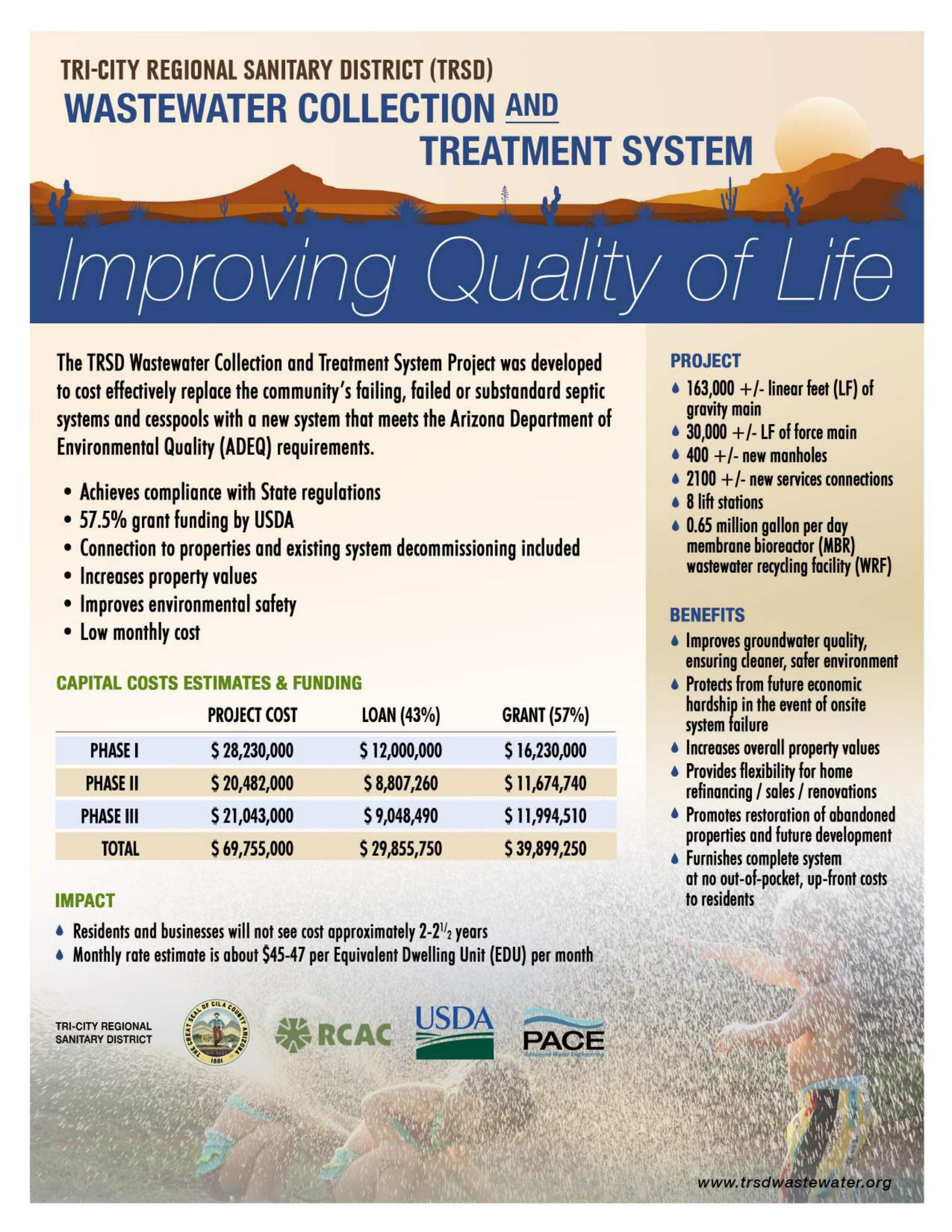
- 163,000 +/- linear feet (LF) of gravity main
- 30,000 +/- LF of force main
- 400 +/- new manholes
- 2100 +/- new services connections
- 8 lift stations
- 0.65 million gallon per day membrane bioreactor (MBR) wastewater recycling facility (WRF)

BENEFITS

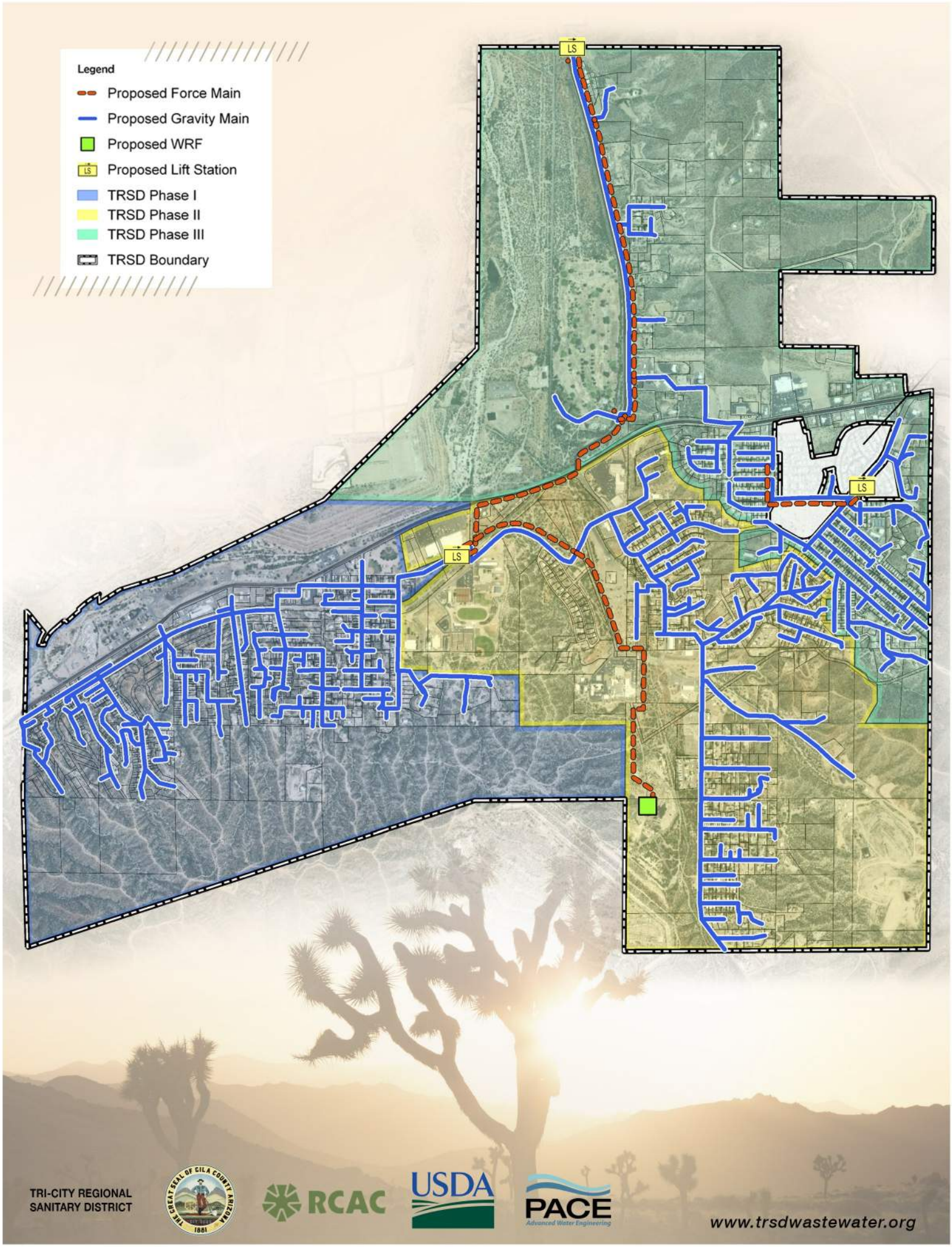
- Improves groundwater quality, ensuring cleaner, safer environment
- Protects from future economic hardship in the event of onsite system failure
- Increases overall property values
- Provides flexibility for home refinancing / sales / renovations
- Promotes restoration of abandoned properties and future development
- Furnishes complete system at no out-of-pocket, up-front costs to residents

TRI-CITY REGIONAL SANITARY DISTRICT

RCAC USDA PACE



www.trsdwastewater.org


Legend
Proposed Force Main
Proposed Gravity Main
Proposed WRF
Proposed Lift Station
TRSD Phase I
TRSD Phase II
TRSD Phase III
TRSD Boundary
LS
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TRI-CITY REGIONAL
SANITARY DISTRICT
THE GREAT SEAL OF GILA COUNTY, ARIZONA
1881
RCAC
USDA
PACE
Advanced Water Engineering
www.trsdwastewater.org

RESOLUTION NO. 18-004

RESOLUTION OF INTENTION

RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRI-CITY REGIONAL SANITARY DISTRICT OF GILA COUNTY, ARIZONA DECLARING ITS INTENTION TO IMPROVE CERTAIN STREETS WITHIN THE DISTRICT BY THE INSTALLATION OF A WATER RECLAMATION FACILITY AND SEWAGE COLLECTION SYSTEM DESCRIBED HEREIN AND AS SHOWN ON THE PRELIMINARY CONSTRUCTION PROJECT PLANS AND SPECIFICATIONS; SUCH IMPROVEMENT TO BE KNOWN AS THE "TRI-CITY REGIONAL SANITARY DISTRICT WASTEWATER TREATMENT AND COLLECTION SYSTEM"; CREATING THREE DESIGNATED AREAS AND DECLARING THE INTENTION TO CONSTRUCT THE WORK DESCRIBED HEREIN IN THREE SEPARATE PHASES UNDER THREE SEPARATELY-BID CONSTRUCTION CONTRACTS; PROVIDING A DESCRIPTION OF EACH PHASE OF THE WORK; STATING THE ESTIMATED FRONTAGE OF LOTS; DETERMINING THAT IMPROVEMENT BONDS WILL BE ISSUED OR LOAN AGREEMENTS ENTERED INTO, AND GRANTS ACCEPTED, TO PAY THE COSTS AND EXPENSES THEREOF; PROVIDING AUTHORITY TO ENTER INTO GRANT AGREEMENTS AND/OR LOAN REPAYMENT AGREEMENTS WITH FEDERAL, STATE OR PRIVATE ENTITIES; PROVIDING FOR THE ISSUANCE OF BOND OR GRANT ANTICIPATION NOTES FOR THE PURPOSES DESCRIBED HEREIN; RESERVING THE RIGHT TO REASSESS ASSESSED PROPERTIES TO COVER MATERIAL COST DIFFERENTIALS BETWEEN PHASES; RATIFYING ACTIONS TAKEN IN FURTHERANCE OF THIS RESOLUTION.

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE TRI-CITY REGIONAL SANITARY DISTRICT OF GILA COUNTY, ARIZONA ("***TRSD***"), that:

Section 1. **Definitions**. In this resolution, the following terms shall have the following meanings:

"*A.R.S*" shall mean Arizona Revised Statutes.

"Assessment" shall be the document or documents which are compiled by the TRSD Engineer pursuant to A.R.S. § 48-2057.

"*Assessment Diagrams*" shall mean those duplicate diagrams of the property to be assessed that will hereafter be prepared by the TRSD Engineer and approved by this Board of Directors. Assessment diagrams will be provided for each Phase of the Work.

"*Board*" shall mean the Board of Directors of TRSD.

"*Bond Anticipation Notes*" shall mean Bond Anticipation Notes issued in the manner provided in A.R.S. § 48-2081.

"*Bond Counsel*" shall mean Gust Rosenfeld, P.L.C., Phoenix, Arizona or other bond counsel experienced in the field of municipal bonds whose opinions are generally accepted by purchasers of municipal bonds.

"*Bonds*" shall mean the Bonds to be issued pursuant to A.R.S. § 48-206.3 to pay the costs and expenses of the Work that are not paid prior to filing of the return showing unpaid Assessments pursuant to A.R.S. § 48-2058. The Bonds may be issued in one or more series. The Board expects that a specific series of Bonds will be issued or a Loan Agreement entered into by TRSD for each Phase of the Work.

"*Bridge Loan*" shall mean Bond Anticipation Notes or Grant Anticipation Notes issued to pay the initial costs and expenses of the TRSD Engineer to draft the final plans and specifications for each Phase of the Work; and also to pay the costs of issuance of such Notes.

"*Capitalized Interest*" shall mean all interest to be paid on the Bridge Loans and Interim Loans, the Bonds and, if applicable Loan Agreement, or Loan Agreements for the period commencing with the initial issuance of any Notes and continuing through the required period of time needed to complete construction of the Work and the Assessment for each Phase of the Work and up to six (6) months thereafter. If Bonds are issued as a series to finance a respective Phase, the Capitalized Interest term shall not exceed the expected period(s) of construction for each such Phase and for up to six (6) months thereafter.

"*Clerk*" shall mean the TRSD Clerk, Roxie Hadley (or her successor as Clerk) at the office of the General Counsel for TRSD located at 136 North Miami Avenue, Miami, AZ 85539-1494.

"*Construction Project Plans and Specifications*" shall mean the plans, the specifications and contract documents for the Work, (as hereafter approved by the Board) and filed with the TRSD Clerk.

"*Contractor*" shall mean the persons or entities to whom a construction contract for any Phase is awarded and executed.

"*County*" shall mean Gila County, Arizona.

"*Designated Area*" or "*Designated Areas*" shall mean the lots, pieces or parcels of land lying within one of the three areas described below. For a more particular description, reference is hereby made to the Designated Areas Maps on file with TRSD with the TRSD Clerk at the office of the General Counsel for TRSD located at 136 North Miami Avenue, Miami, AZ 85539-1494.

GENERAL LOCATION

Three designated areas are contained within the land being portions of Sections 15, 16, 20, 21, 22, 27, 28 and 29, in Township 1 North, Range 15 East of the Gila and Salt River Meridian, in Gila County, Arizona, more particularly described as follows:

PHASE I (Designated Area No. 1) BOUNDARY DESCRIPTION

Beginning at the East Quarter Corner of Section 20;
Thence easterly to the intersection of the north line of U.S. Highway 60 and the west line of E. Ragus Road;
Thence southerly on the west line of E. Ragus Road to the south line of U.S. Highway 60;
Thence westerly 1,318 ft. along the south line of U.S. Highway 60 to a point;
Thence southerly 675 ft. to a point;
Thence easterly 1,102 ft. to a point;
Thence southwesterly 1,495 ft. along the northwest line of the railroad that runs parallel to E. Ragus Road to S. Maple Leaf Street;
Thence south on the north prolongation of the east line of S. Maple Leaf Street to the north line of S. Starview Road;
Thence easterly 494 ft. to a point;
Thence southerly 74 ft. to a point 45 ft. north of the north line of S. Starview Road;
Thence easterly 1,605 ft. to a point;
Thence southerly 900 ft. to a point;
Thence easterly to the west line of Section 27;
Thence southerly along the west line of Section 27 (along the District Boundary) to the West Quarter Corner of Section 27;
Thence westerly along the east-west mid-section line of Section 28 (along the District Boundary) to the Center Quarter Corner of Section 28;
Thence southwesterly along the District Boundary to the Southwest Corner of Section 29;
Thence northerly along the west line of Section 29 (along the District Boundary) to the Northwest Corner of Section 29;
Thence northeasterly along the District Boundary to the East Quarter Corner of Section 20 (the point of beginning).

PHASE II (Designated Area No. 2) BOUNDARY DESCRIPTION

Beginning at a point on the east line of Section 27 1,195 ft. south of the north line of Section 27;
Thence westerly 1,128 ft. to a point;
Thence northeasterly 420 ft. then north 351 ft. to a point;
Thence northwesterly 486 ft. to a point 104 ft. west of S. Farnsworth Way;
Thence north 547 ft. to the south line of E. Inspiration Terrace;
Thence westerly 340 ft. to E. Globe Canyon Avenue, then 88 ft. northwesterly to a point on the west line of S. Mountain View Street;
Thence north on the west line of S. Mountain View Street to the intersection of Scott Avenue and S. Mountain View Street;
Thence west 100 ft. to a point;
Thence north 300 ft. to a point;
Thence east 100 ft. to the west line of S. Mountain View Street;
Thence northerly along the west line of S. Mountain View Street to the point where the west line of S. Mountain View Street intersects with the east line of E. Cross Drive;
Thence northwesterly 992 ft. along the northeast line of the alley between S. Central Drive and S. Cobb Avenue to a point 102 ft. southwest of the south line of E. Golden Hill Road;

Thencc southwesterly 124 ft. to a point 75 ft. east of Aceess Road, also known as S. West Avenue.
Thence west to the east linc of Access Road, also known as S. West Avenue;
Thence southerly 126 ft. along the east linc of Access Road, also known as S. West Avcnue, to a point 136 ft. north of E. Roberts Drive;
Thenee southwesterly 760 ft. to a point;
Thenee north 701 ft. to the south linc of E. Golden Hill Road;
Thence northeasterly along the meridian of Golden Hill Road to a point 62 ft. south of the south line of E. Elm Way where it intcrsects at N. Arbor Avenue;
Thence north to the south line of E. Elm Way where it intersects at N. Arbor Avenuc;
Thence northwesterly 603 ft. to a point;
Thenee northwesterly 489 ft. to a point 137 ft. west of the west line of N. Cherry Avenuc;
Thence west 270 ft. to a point 407 ft. west of the west line of N. Cherry Avenue;
Thence north 205 ft. to a point 277 ft. south of the south linc of W. Cypress Drive;
Thence northwesterly parallel to W. Cypress Drive 986 ft. to a point 288 ft. west of thc west line of W. Cypress Dr.;
Thenee northwesterly 182 ft. to a point 220 ft. south of the south linc of U.S. Highway 60;
Thcnce northwesterly 340 ft. to the meridian of U.S. Highway 60;
Thence southwesterly on the meridian of U.S. Highway 60 to the intersection of the north line of U.S. Highway 60 and the west line of E. Ragus Road;
Thence southerly on the west line of E. Ragus Road to the south linc of U.S. Highway 60;
Thence westerly 1,318 ft. along thc south line of U.S. Highway 60 to a point;
Thcnce southerly 675 ft. to a point;
Thence easterly 1,102 ft. to a point;
Thenee southwestcrly 1,495 ft. along thc northwest line of the railroad that runs parallel to E. Ragus Road to S. Maple Leaf Street;
Thenee south on the north prolongation of the east line of S. Maple Leaf Strcet to the north line of S. Starview Road;
Thence easterly 494 ft. to a point;
Thcnce southerly 74 ft. to a point 45 ft. north of the north line of S. Starview Road;
Thence easterly 1,605 ft. to a point;
Thence southerly 900 ft. to a point;
Thence easterly to thc west line of Scction 27;
Thence southerly along the west line of Section 27 (along the District Boundary) to the Southwest Corner of Section 27;
Thence easterly along the south linc of Seetion 27 (along the District Boundary) to the Southcast Corner of Section 27;
Thence northerly along the cast linc of Section 27 (along the Distriet Boundary) to a point on the cast line of Section 27 1,195 ft. south of the north line of Section 27 (the point of beginning).

PHASE III (Designated Area No. 3) BOUNDARY DESCRIPTION

Beginning at the East Quarter Corner of Section 20;
Thence northeasterly along the District boundary to the North Quarter Corner of Section 21;

Thence northerly along the north-south mid-section linc of Section 16 (along the District Boundary) to the North Quarter Corner of Section 16;
Thencc casterly along the north lines of Section 16 and 15 (along the District Boundary) to the North Quarter Cornor of Section 15;
Thence southerly along the north-south mid-section line of Section 15 (along the District Boundary) to the Center Quarter Corner of Section 15;
Thence easterly along the east-west mid-section line of Section 15 (along the District Boundary) to the East Quarter Corner of Section 15;
Thence southerly along the east lines of Section 15, Section 22 and Section 27 (along the District Boundary) to a point on the east line of Scction 27 1,195 ft. south of the north line of Section 27;
Thence westerly 1,128 ft. to a point;
Thcnce northeasterly 420 ft. then north 351 ft. to a point;
Thence northwcsterly 486 ft. to a point 104 ft. west of S. Farnsworth Way;
Thence north 547 ft. to thc south line of E. Inspiration Tcrrace;
Thencc westerly 340 ft. to E. Globe Canyon Avenue, then 88 ft. northwesterly to a point on the west line of S. Mountain View Street;
Thence north on the west line of S. Mountain View Street to the intersection of Scott Avenue and S. Mountain View Street;
Thencc west 100 ft. to a point;
Thcnce north 300 ft. to a point;
Thence east 100 ft. to the west line of S. Mountain View Strect;
Thence northerly along the west line of S. Mountain View Street to the point where the west line of S. Mountain View Street intersects with the east line of E. Cross Drive;
Thence northwesterly 992 ft. along the northeast line of the alley bctween S. Central Drive and S. Cobb Avenue to a point 102 ft. southwest of the south line of E. Golden Hill Road;
Thence southwcsterly 124 ft. to a point 75 ft. east of Access Road, also known as S. West Avenue.
Thence west to the east line of Access Road, also known as S. West Avenue;
Thence southerly 126 ft. along the east line of Access Road, also known as S. West Avenue, to a point 136 ft. north of E. Roberts Drive;
Thence southwesterly 760 ft. to a point;
Thence north 701 ft. to the south line of E. Golden Hill Road;
Thcnce northeasterly along the meridian of Golden Hill Road to a point 62 ft. south of the south line of E. Elm Way where it intersects at N. Arbor Avenue;
Thencc north to the south line of E. Elm Way where it intersects at N. Arbor Avenue;
Thence northwesterly 603 ft. to a point;
Thence northwesterly 489 ft. to a point 137 ft. west of the west line of N. Cherry Avenue;
Thence west 270 ft. to a point 407 ft. west of the west line of N. Cherry Avenue;
Thence north 205 ft. to a point 277 ft. south of the south line of W. Cypress Drive;
Thcnce northwesterly parallel to Cypress Drive 986 ft. to a point 288 ft. west of the west line of W. Cypress Dr.;
Thence northwesterly 182 a point 220 ft. south of the south line of U.S. Highway 60;
Thcnce northwesterly 340 ft. to the meridian of U.S. Highway 60;
Thence southwesterly on the meridian of U.S. Highway 60 to the intersection of the north line of U.S. Highway 60 and the west line of E. Ragus Road;
Thence westerly to the East Quarter Corner of Section 20 (the point of bcginning).

"*Designated Area Maps*" shall mean maps showing the outlines of each designated area. The Designated Area Maps submitted to this Board at the meeting at which this Resolution was adopted, shall remain on file at the TRSD Clerk's office located at the office of the General Counsel for TRSD located at 136 North Miami Avenue, AZ 85539-1494 United States and are incorporated by reference thereto.

"*Environment Protection Agency*" or "*EPA*" shall mean the Environmental Protection Agency of the United States.

"*Estimate*" or "*Official Engineer's Estimate*" shall mean the TRSD Engineer's estimate of costs and expenses of the Work filed with the TRSD Clerk prior to adoption of this Resolution, showing:

Description	Total Cost Estimate	Total Phase I	Total Phase II	Total Phase III
Construction Costs	$ 44,943,000	$ 18,138,000	$ 13,190,000	$ 13,615,000
Incidental Costs	$ 17,302,000	$ 7,057,000	$ 5,088,000	$ 5,157,000
Contingency Costs	$ 7,510,000	$ 3,035,000	$ 2,204,000	$ 2,271,000
Estimate Totals	$ **69,755,000**	$ **28,230,000**	$ **20,482,000**	$ **21,043,000**
Less Grant (57%) Total*	$ 39,900,000	$ 16,230,000	$ 11,675,000	$ 11,995,000
Residential Connections	$ *16,928,000*	$ *6,550,000*	$ *5,354,000*	$ *5,024,000*
Collection & Treatment	$ *22,972,000*	$ *9,680,000*	$ *6,321,000*	$ *6,971,000*
Loan (43%) Subtotal	$ 29,855,000	$ 12,000,000	$ 8,807,000	$ 9,048,000
Plus Inflation**	$ 2,691,000	$ 0	$ 881,000	$ 1,810,000
Loan Total	$ 32,546,000	$ 12,000,000	$ 9,688,000	$ 10,858,000

*** If, as and when received. Grant amounts are estimated at the Phase I level for Phases II and III.**
**** Applies only to Phases II and III.**

"*Grant Agreement*" or "*Grant Agreements*" shall mean any agreement or agreements with USDA-RD, RCAC, EPA or any other person acceptable to the Board offering to make grants to TRSD setting forth the conditions under which the grants are to be made, to be rescinded, or to be modified and TRSD's covenants and obligation as contained in the specific Grant Agreement.

"*Grant Anticipation Notes*" shall mean notes issued in advance of a grant as provided in A.R.S. Title 35, Chapter 3, Article 3.2, which are to be repaid solely from the proceeds of the respective grant, if and when received.

"*House Connections*" shall mean sewer lines running from the collector sewer lines to be constructed in the Streets to be improved, as shown on *Exhibit B*, to the existing homes and businesses and the decommissioning of any existing cesspools or septic tanks. The estimated amount of each House Connection, and the expected amount of Grant to be credited to said parcel, if then known, will be shown separately for each assessed parcel on the Assessment for each Phase.

"*Incidental Expenses*" shall mean the compensation paid to the TRSD Engineer, the costs of mailing, printing, advertising and posting, the amount paid the TRSD Engineer to take charge and superintend the Work and the expenses of making and administering the Assessment, any discount on the Bonds, any paying agent's fee, appraiser's fees, costs of property acquisition and easement acquisition, all legal and financial fees, expenses and costs incurred in the drafting of the proceedings and in the sale of Notes and Bonds, the execution and delivery of Loan Agreements or Grant Agreements, interest on, and legal and financial expenses incurred with respect to the acquisition of easements, public rights-of-way and other documents granting a right to construct the Work in or through land either within or without TRSD, Notes, and Interest, if any, to be paid on the Bonds, Grant Anticipation Notes or Bond Anticipation Notes.

"*Interim Loan*" shall mean Bond Anticipation Notes or Grant Anticipation Notes issued to fund the construction of the Work from commencement of design and construction until receipt of loans or grants.

"*Loan Agreement or Loan Agreements*" shall mean any agreement to be entered into between TRSD and USDA-RD, EPA, or RCAC or any Bank or institutional investor to provide financing and/or grants for a portion of the Work; or to provide temporary, Bridge or Interim Loans through Notes.

"*Map*" shall mean the detailed Map, showing Phases I, II and III, and the streets to be improved on file with TRSD and available for viewing and copying (upon payment of applicable copying costs) at the TRSD Clerk's office located at the office of the General Counsel for TRSD located at 136 North Miami Avenue, Miami, AZ 85539-1494. The map shall also be posted on the TRSD website.

"Newspaper" shall mean the Arizona Silver Belt, a weekly newspaper of general circulation within TRSD.

"*Notes"* shall mean Bond Anticipation Notes, Grant Anticipation Notes, or any combination thereof.

"*Notice of the Proposed Improvement*" shall mean a notice of the passage of the Resolution of Intention in substantially the form presented to the Board prior to adoption of the Resolution of Intention.

"*Phase*" or "*Phase of the Work*" shall mean a portion or Phase of the Work and the Incidental Expenses attributable to such Phase; Phases shall be constructed pursuant to a separate construction contract for each Phase, or portion thereof.

"*Phase I*" shall mean construction of the Work serving the area comprising Phase I, as described above;

"*Phase II*" shall mean construction of the Work serving the area comprising Phase II, as described above;

"*Phase III*" shall mean eonstruetion of the Work serving the area eomprising Phase III, as describcd above;

"*Preliminary Plans and Specifications*" shall mean the Preliminary Engineering Report and Preliminary Plans and Specifications for Phase I of the Work, ineluding the preliminary engineering report for Phase I now on file with the TRSD Clerk and the Preliminary Plans and Speeifications for Phase II and Phase III, now on file with the TRSD Clerk. The Preliminary Plans and Specifieations shall also be posted on TRSD's website.

"*Private Payment Bond*" shall mean a payment bond for non-public construction connecting the sewer collection system on private land to connect to a house or business; such Bond will be acquired by the Contractor naming TRSD as such Bond's beneficiary to cover eonstruction of House Connections wherc public easements have not been acquired prior to execution of the respective Contraetor's Contraet.

"*Private Performance Bond*" shall mean a performance bond for non-publie construction; such Bond will be acquired by the Contractor naming TRSD as such Bond's beneficiary to cover construction of each House Connection, or all House Connections under thc Contractor's Contract, where publie easements have not, or will not, be aequired for such Housc Connection prior to exeeution of the respective Contractor's Contract.

"*RCAC*" shall mean the Rural Community Assistance Corporation, an Arizona Non-Profit Corporation.

"*Resolution of Intention*" shall mcan this resolution.

"*Rural Development*" or "*USDA-RD*" shall mean Rural Development, a division of thc United States Department of Agrieulture.

"*Sewers*" includc water reclamation facility, force mains, lift stations, tunnels, excavations, ditchcs, drains, conduits, channels, outlets, outfalls, manholes, catch basins, flush tanks, House Connections, connecting sewers of every character, machincry, apparatus, equipment and all appliances and structures neccssary or incidental to the eonstruction, installation or operation of a eomplete sewer system for sanitary sewer purposes; the term Sewers shall also inelude House Connections construeted within public or private casements provided by the respective property owner, and the deeommissioning of existing cesspools and septie tanks. House Conneetions fully paid with the procceds of Grant Agreements, shall not require the grant of a public easement for the respective house to be connected; howcver, no asscssment may be levied to construct a house connection in a private easement.

"*Streets*" or "S*treets to be Improved*" shall mean the streets, avenues, alleys, easements and rights of entry or portions thereof open and dcdicated to public use and public ways, or dedieated publie utility easements in which TRSD may eonstruct sewer lines wherein any portion or portions of respective Phase of the Work will bc performed as shown on the Preliminary Plans and Specifications and on public easements or public rights-of-way acquired

or to be acquired. The Streets to be improved, with the exception of House Connections, are shown on *Exhibit A*.

"*State*" shall mean the State of Arizona.

"*TRSD*" shall mean Tri-City Regional Sanitary District of Gila County, Arizona.

"*TRSD Engineer*" or "*PACE*" shall mean initially, PACE Advanced Water Engineering, located at 7434 East McDonald Drive, Scottsdale, Arizona with a mailing address of P. O. Box 4805, Scottsdale, Arizona 85261 and an email address of mikekrebs@pacewater.com, and, thereafter, such engineer or firm of engineers as appointed by the Board.

"*Treasurer*" or "*TRSD Treasurer*" means the Gila County Treasurer.

"*Wastewater System*" means force mains, collector sewers, House Connections, lift stations and water reclamation facility and all appurtenances thereto.

"*Work*" shall mean the construction and installation of a water reclamation facility and wastewater collection system to include a sewer collection system and House Connections on the benefitted lots or parcels adjacent to public streets, alleys, public easements and public rights-of-way, together with all necessary appurtenances and adjuncts, all as shown on the Preliminary Plans and Specifications and the Engineer's Estimate on file with the Clerk. The Work may either be constructed in Phases under one or more contracts, or under a single contract. If the Work is constructed under a single contract, Phases I, II and III shall be consolidated; any such consolidation will be determined by this Board. In addition, any two Phases may be consolidated into one Phase of the Work and be constructed under one or more contracts.

Section 2. **Declaration of Intention**. The public interest and convenience require, and it is the intention of this Board to order the Work to be performed. All items of the Work shall be performed as prescribed by the Preliminary Plans and Specifications for Phases I, II and III, respectively and no Assessment for any lot shall exceed its proportion of the Estimate. For purposes of this Resolution of Intention and of all resolutions and notices pertaining to this Resolution of Intention, the improvement of the Streets, herein described as the Work, shall also be known as Tri-City Regional Sanitary District of Gila County, Arizona Wastewater Treatment and Collection System. The Board hereby declares its intent to proceed with the completion of all plans, specifications, financing and construction of all Phases of the Work.

Section 3. **Determination of Need**. In the opinion of the Board, the Work is of more than local or ordinary public benefit, and the Board hereby orders that all amounts due or to become due with respect to the Work shall be chargeable upon the respective lots, pieces and parcels of land that benefit from the Work.

Section 4. **Exclusion of Certain Property**. Any Federal or State Highway, public street, alley, easement, right-of-way or other grant of land for sewer purposes within TRSD are hereby omitted from the Assessment and shall not be assessed for the Work. Any parcel or lot owned by or belonging to the United States, the State, Gila County or in any city, town, school

district or any political subdivision or institution of the State or Gila County, fronting on a street or streets to be improved, shall be omitted from the Assessment hereafter made except as otherwise agreed between TRSD and the respective public property owner. Notwithstanding the foregoing portion of this Section 4, no property belonging to the United States, the State or any subdivision of thereof shall be connected to the Work unless TRSD has theretofore entered into a contract with the United States, the State or the Governing Body of the Governmental entity, if applicable, to which the lot or parcel belongs for payment to TRSD of the Assessment and interest thereon (if the assessment is not fully paid before Work commences for the Phase in which such government property is located) as they become due.

Section 5. Determination and Notice of Necessity to Issue Bonds or enter into Loan Agreements. The Board finds that the public convenience requires that Bonds and Loan Agreements shall be issued or entered into to represent a portion of the costs and expenses of each Phase of the Work to be assessed upon the land benefitting from the Work and determines that Bonds shall be issued in the name of TRSD payable in each instance, however, solely and only out of a special fund collectible from special assessments levied and assessed upon the lots, pieces and parcels of land fronting upon streets to be improved by the Work payable in not to exceed forty-one (41) annual principal installments. This Board also finds that the public convenience will require that TRSD enter into Loan Agreements in addition to issuing Bonds, and the statutory method for collection of Assessments for payment of Bonds shall apply to installments of the Assessment to pay Loan Agreements.

The Bonds will mature and Loan Agreements will be payable as to principal on the first day of July in amounts to be set by the Board prior to the issuance of the Bonds or the incurrence of Loan Agreement. Said Bonds and Loan Agreements will bear interest at the rate of not to exceed seven percent (7%) per annum, payable on the first day of January and July of each year commencing as to each Phase on the date set by the Board.

If Bonds are initially sold to, or a loan agreement or a loan agreements are entered into with, department, division, or agency of the United States such Bonds shall have a term, or terms that may not exceed forty-one (41) years; however, if the Bonds are initially sold to a person or persons other than the United States, or any agency or instrumentality of the United States, the installments of principal shall not exceed 30 years. The form of the Bonds may be incorporated by reference into any loan agreement between TRSD and a department, agency or instrumentality of the United's States of America or the State of Arizona.

Section 6. Bond and Grant Anticipation Notes. The Board reserves the right to issue Bond Anticipation Notes pursuant to A.R.S. § 48-2081 and Grant Anticipation Notes pursuant to A.R.S. Title 35, Chapter 3, Article 3.2. The maximum rate of interest to be paid on the notes shall not exceed 7% per annum. The Bond Anticipation Notes and the Grant Anticipation Notes may be sold using public or private sales. The Board also reserves the right to retain any Bonds, which may be issued and to sell the same for cash to pay the Contractors amounts due it in cash for the Work.

Section 7. Statutory Authority. The Work and all proceedings pertaining thereto shall be performed under the provisions of A.R.S §§ 48-2041 through 48-2085, inclusive, and all

amendments thereto. Grant Anticipation Notes may be issued pursuant to A.R.S. Title 35, Chapter 3, Article 3.2. Bond Anticipation Notes may be issued pursuant to A.R.S. § 48-2081. Neither Grant Anticipation Notes nor Bond Anticipation Notes may be issued without the express authorization by this Board.

Section 8. Notice to Property Owners; Protests and Objections to the Extent of each Designated Area.

A. This Resolution of Intention shall be published two times in consecutive issues of the Newspaper. Notice of Proposed Improvement shall also be conspicuously posted along the location of the proposed Work, at not more than three hundred feet apart. Such posted notice shall be headed "Notice of Proposed Improvement", in letters at least one inch in height, and shall state the fact of the passage of this Resolution of Intention and briefly describe the improvement proposed. The posted Notice of Proposed Improvement shall be in substantially the form presented to the Board at the meeting at which this Resolution was adopted.

B. There shall also be mailed to each property owner whose property may be assessed a copy of the Notice of Proposed Improvement which contains a brief description of the proposed improvement. The Notices shall be sent by United States mail to each name on the most recent equalized property tax roll.

C. The owners of property within one or more Designated Areas may file written protests against the construction of the Work or objections against the extent of their respective Designated Area. Said protests or objections to the extent of a Designated Area shall be filed with the TRSD clerk at the office of the General Counsel for TRSD located at 136 North Miami Avenue, Miami, AZ 85539-1494 United States.

Said protests or objections must be filed within fifteen (15) days after the date of the last publication of the Resolution of Intention or within 15 days after the completion of the posting of Notice of Improvement, if such date is after the date of the last publication. The protest shall show a description of the property and the amount of the frontage owned by each signer together with his or her post office address; in addition, each protest (or combined protests) must also include an affidavit of a District property owner stating that each signature was affixed in his or her presence; and shall be filed at the TRSD Clerk's office located at the office of the General Counsel of TRSD located at 136 North Miami Avenue, Miami, AZ 85539-1494 above-mentioned.

Section 9. Delegation of Authority. The TRSD Engineer is hereby authorized to fill in any blanks and to make any minor corrections necessary to complete the Preliminary Plans and Specifications and contract documents.

Section 10. Right to Reduce Scope of Work. If, because of pending or threatened litigation concerning any one or more parcels subject to Assessment, TRSD and the winning bidder receive a written opinion of Bond Counsel stating that Bonds cannot be issued against such parcel or parcels pending the outcome of such litigation, TRSD may then cause the construction contract to be modified to exclude from the applicable contract some or all of the

Work which will benefit the parcel or parcels in question. The filing of a certificate and request that no Bonds be issued against any parcel pursuant to A.R.S. § 48-2065 (B), may be deemed to be threatened litigation. Pending the outcome of any litigation, or threatened litigation, this Board may order a re-assessment to provide sufficient moneys to pay any Contractor, Bond or Loan Agreement the amount that may accrue during the pendency of such litigation.

Section 11. Approval of Assessment Diagram. Duplicate Assessment Diagrams for each Phase of the Work will be filed with the TRSD Secretary, and hereafter may be approved by the Board and the TRSD Secretary shall certify such approval thereon. In addition to the requirements for such diagrams, as stated in A.R.S. § 48-2057, the Assessment Diagrams shall show each lot to be assessed for the Work, the amount of such lot's frontage on the Work and such lot's square footage.

Section 12. Reservation of Right to Reassess. Costs of the Work may change due to inflation or an increase in the number of construction projects similar to the Work. In addition, future funding depends both on continued grants and loans by USAD-RD. The percentage of grants to loan may change from Phase to Phase. The costs assessed for construction of a Water Reclamation Facility and main lines, force main lines and lift stations initially assessed to Phase I, may be reassessed as Phases II and III are constructed if subsequent costs and expenses differ materially from any other Phase. The Board believes that the various lots to be assessed to pay the cost of the Work should receive Assessments as close as possible to uniform for residential lots and uniform amounts for commercial and industrial lots of the same character; therefore, the Board reserves the right to reassess Phases that had previously been assessed, if the cost per lot is materially differs from Phase I in either Phase II, Phase III, or any later Phase, if applicable.

Section 13. Reimbursement. For the purposes of the United States Treasury Regulation Section 1.150-2 (the "*Regulation*"), TRSD declares its official intent to reimburse any expenditure now, or hereafter, made with respect to the Work with the proceeds of a Loan Agreement, or Loan Agreements, Bonds, or Notes. TRSD shall, upon the execution and delivery of any Loan Agreement or Loan Agreements, and of any Bonds, or Notes, cause a written allocation to be made that evidences TRSD's use of proceeds of the Bonds and/or the Notes to reimburse a prior expenditure. TRSD shall not permit proceeds of a Reimbursement Bond (as defined in the Regulation) to be used to reimburse a prior expenditure unless such reimbursement is made within the reimbursement time period set forth in the Regulation or unless all requirements of such Regulation are otherwise satisfied. TRSD is authorized to take any other appropriate actions that are necessary to meet the requirements of the Regulation. The TRSD President is charged with documenting both the expenditures that are to be reimbursed, and the actual reimbursement of the funds from which funds are advanced prior to issuance of the Bonds and execution and delivery of the notes.

Section 14. Easements to be Acquired. Public easements for both the Water Reclamation Facility, Force Mains, Lift Stations and Collector Sewer Lines must be acquired in the lots and parcels of land set forth in *Exhibit A*. If the easement across any given lot or parcel is not obtainable, then that parcel and all parcels expected to benefit from the Work, draining into the collector sewer location at an elevation above such un-acquired public easement and that would collect sewage that would flow into collector line to be constructed through the un-

acquired casement shall not be assessed until such street, easement, or right of way has been obtained.

Section 15. Miscellaneous. The Work shall be done and all proceedings therefor shall be taken. The TRSD Engineer shall make duplicate diagrams of the property contained within each Designated Area; the diagrams shall show each separate lot, numbered consecutively, the area in square feet of each lot, and the location of the lot in relation to the work proposed to be done. This Resolution of Intention shall be filed with the TRSD Secretary and made a part of the records of this Board.

Section 16. Approval of Federal Loan and Grant Agreements. Pursuant to A.R.S. § 48-175(E) TRSD has the authorization to enter into Federal grant and loan agreements with USDA-RD, EPA or any other federal department or agency if the owners of a majority of the frontage of the property do not file protests, or objections to the proceedings, or the construction contract, or any contract or agreement with the federal government as described in this Resolution of Intention.

Section 17. Ratification of Actions. All acts of the Board, TRSD Engineer and any person acting for such official or TRSD in furtherance of this Resolution of Intention, whether before or after adoption of this Resolution of Intention are hereby ratified and confirmed.

Section 18. Effective Date. This Resolution shall become effective immediately upon its adoption.

PASSED, ADOPTED AND APPROVED on October 25, 2018.

Robert J. Zaché, President

ATTEST:

Mary Anne Moreno, Secretary

CERTIFICATE

I hereby certify that the above and foregoing Resolution No. 18-004 was duly passed by the Board of Directors of Tri-City Regional Sanitary District of Gila County, Arizona, at a regular meeting of the Board of Directors of such District held on October 25, 2018, and that a quorum was present thereat and that the vote thereon was 4 ayes and Ø nays. Ø did not vote or were absent.

Mary Anne Moreno, Secretary

3383415.2

LIST OF EXHIBITS

EXHIBIT A –Streets, Avenues, Alleys, Places, Drives, Public Easements and Public Rights-of-Way to be improved by the Phase I, Phase II, and Phase III Construction including easements and Rights-of-Way to be acquired.

APPENDIX C – BIOLOGICAL EVALUATION

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.

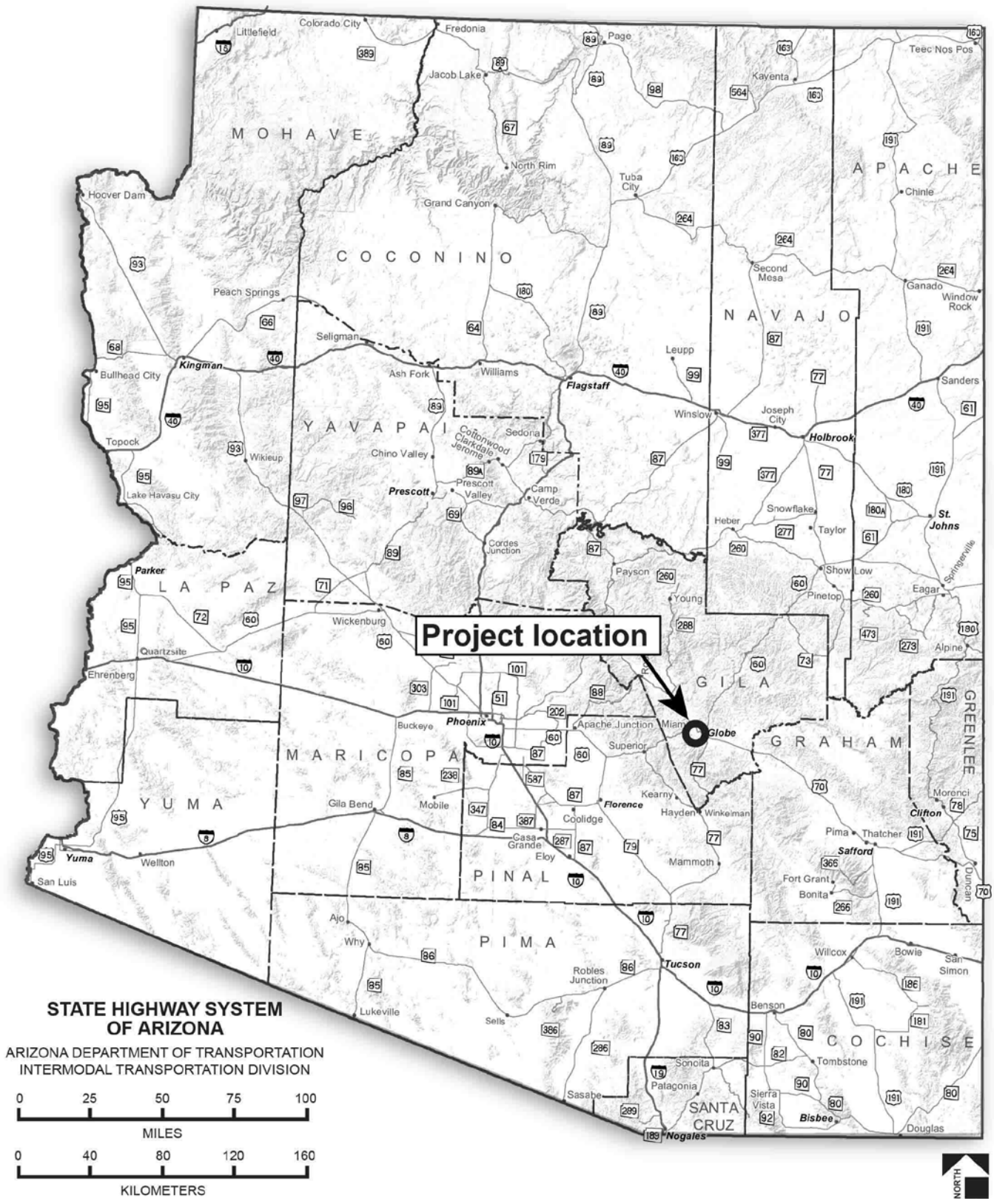


Figure 1. Project location

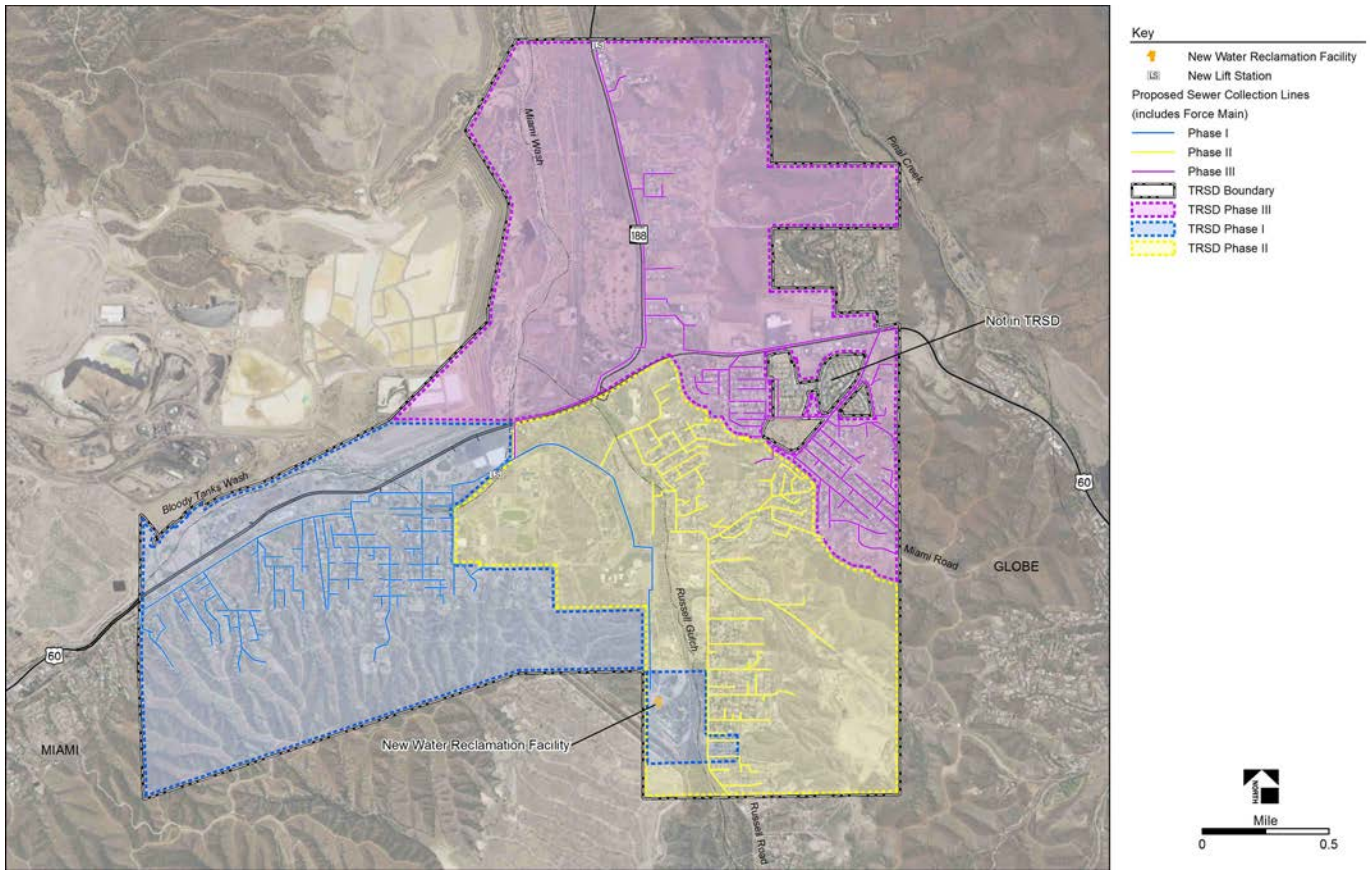


Figure 2. Project area with Phase allocation

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

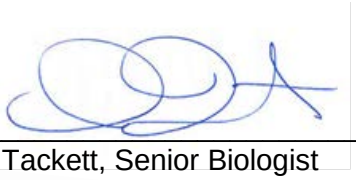
Brown, D. E. 1994. "Semidesert Grassland." In *Biotic Communities: Southwestern United States and Northwestern Mexico*, edited by D. E. Brown, 123–131. University of Utah Press, Salt Lake City.

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.

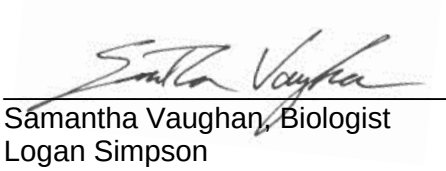
8. Additional Information

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.

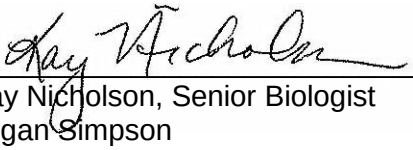
9. Signatures

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.

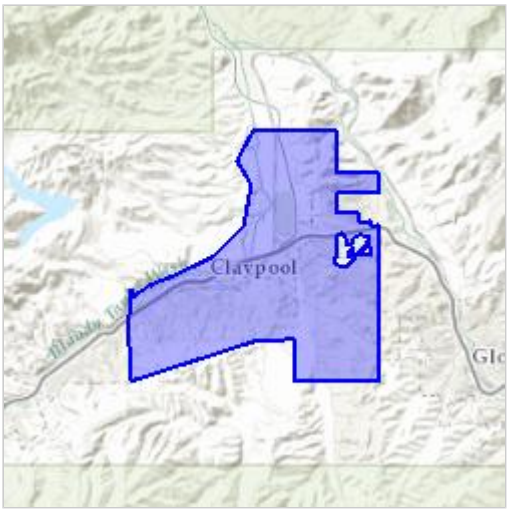
• Installation of approximately 1,750 manholes for access to the sewer

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

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

Project Name:

Tri-City Regional Sanitary District Project

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 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 data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

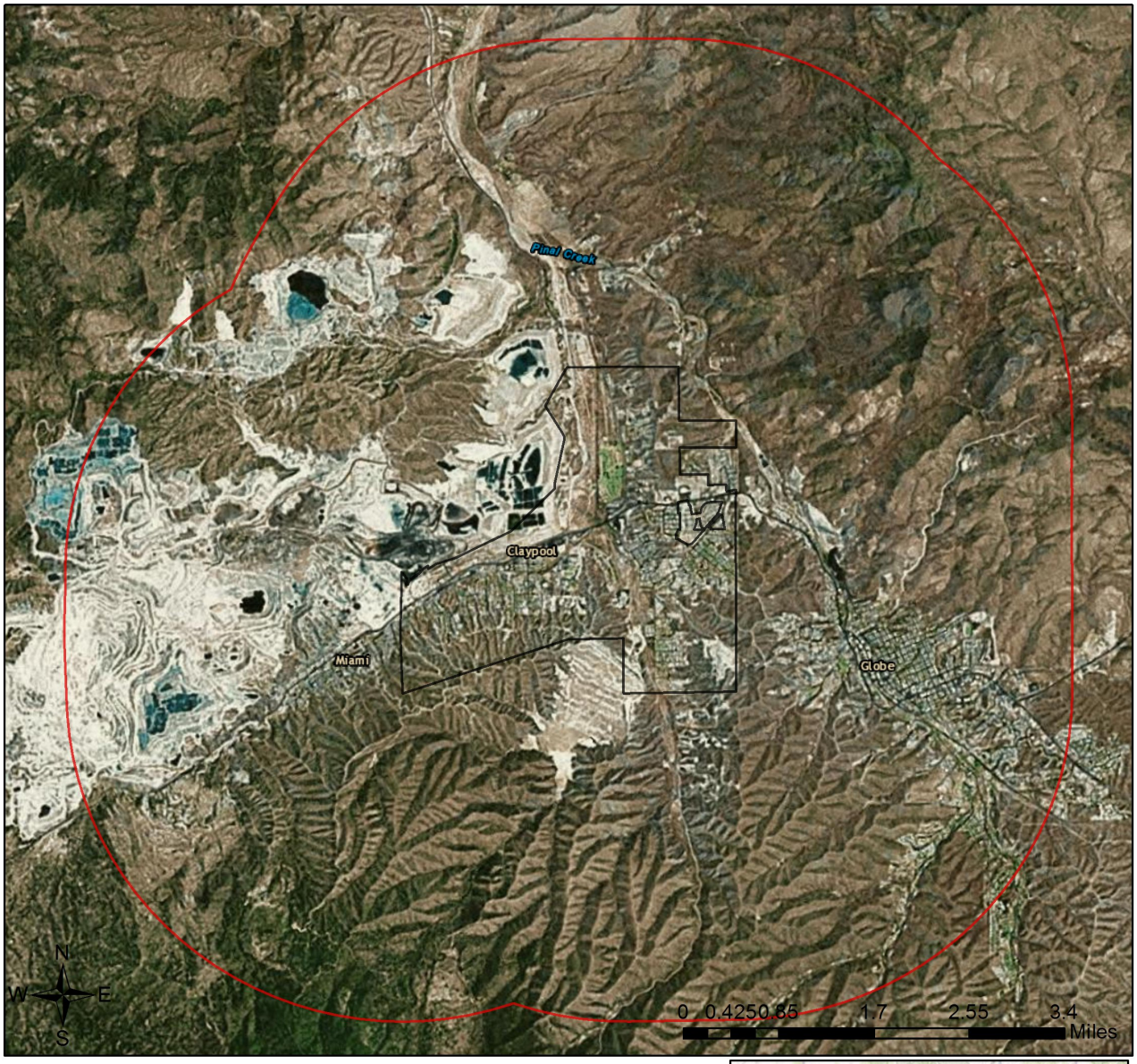
Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

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

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

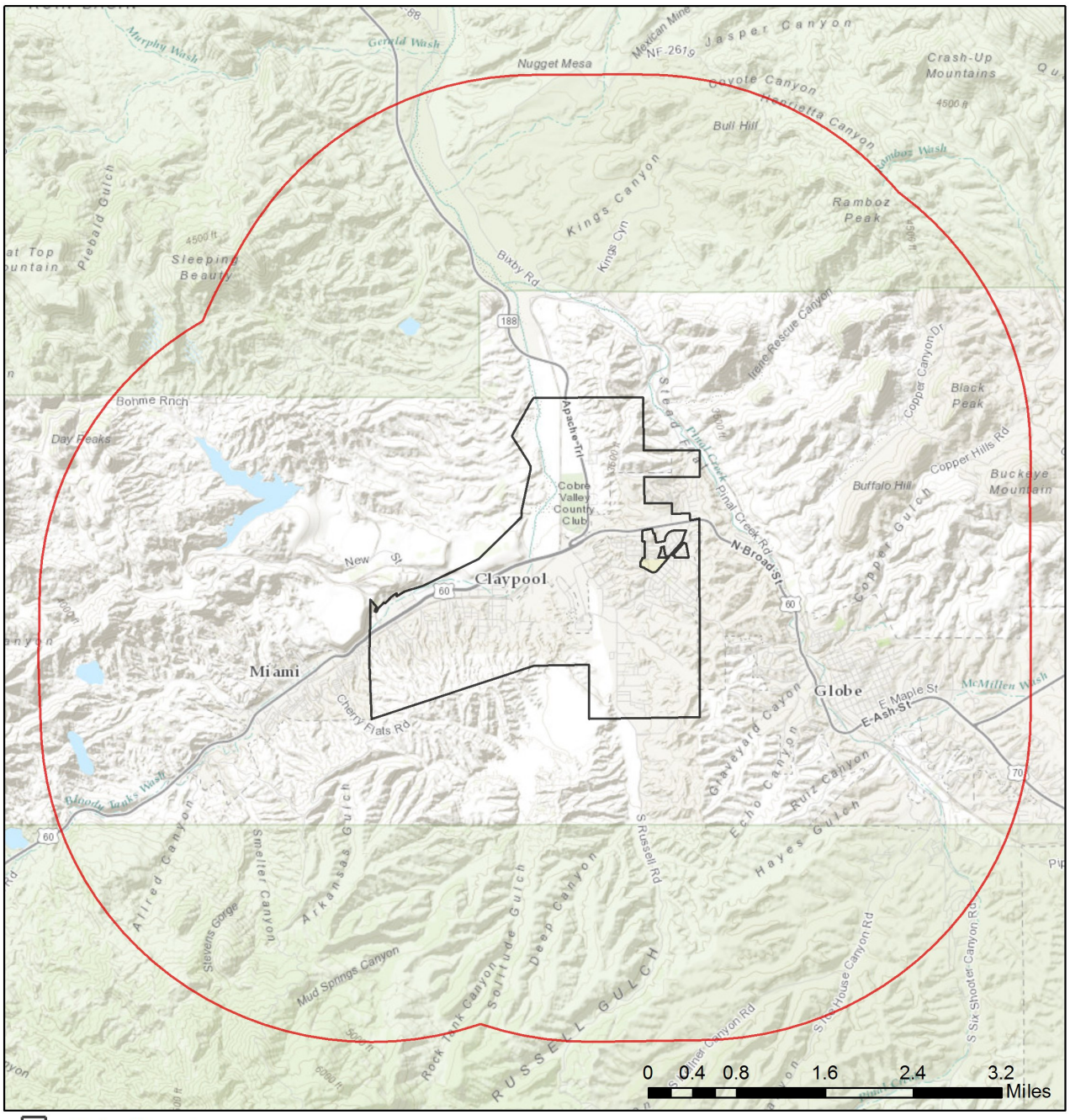
Township/Range(s): T1N, R15E

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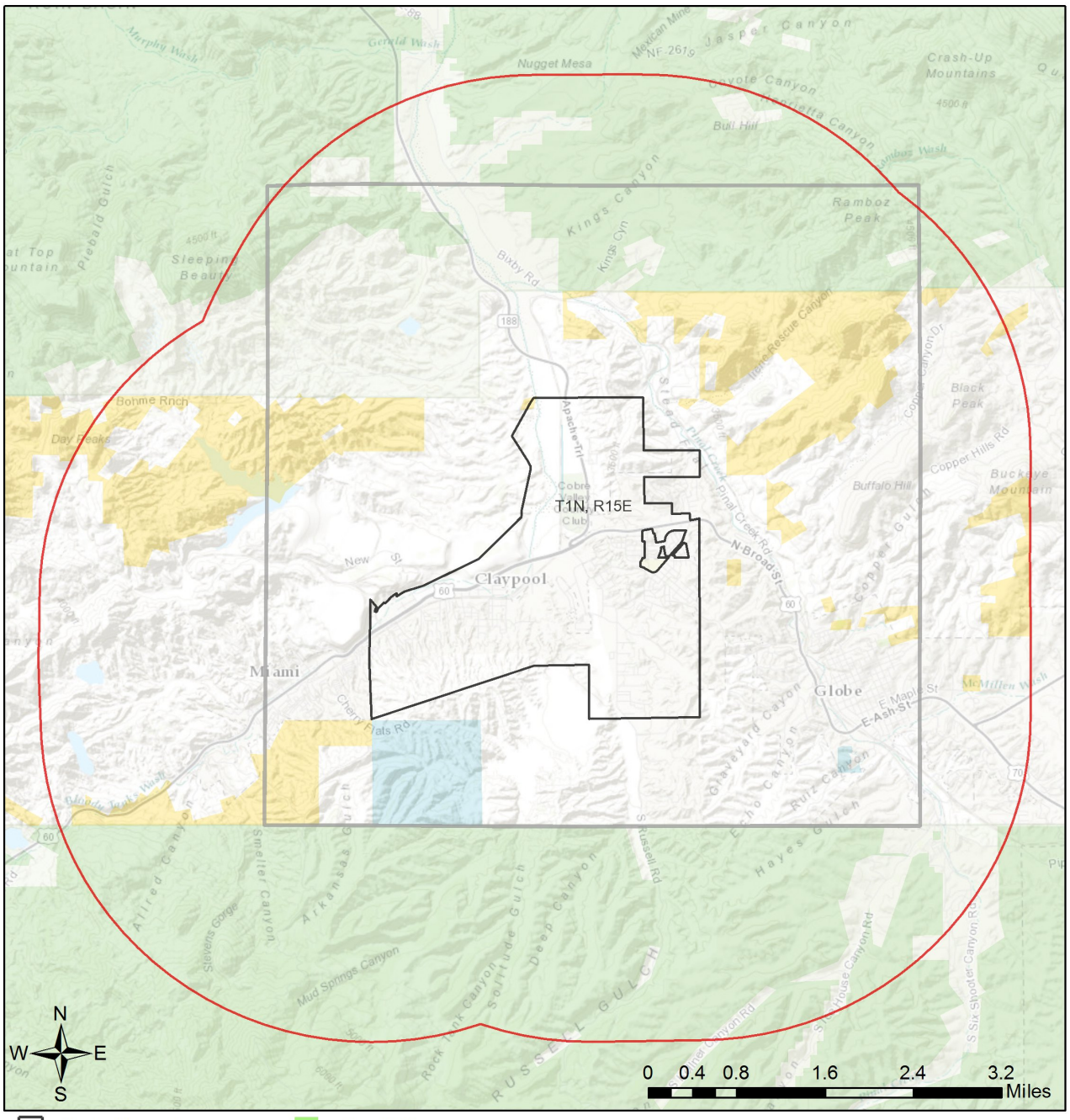
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Tri-City Regional Sanitary District Project

Topo Basemap With Township/Ranges and Land Ownership



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

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

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	Common Name	FWS	USFS	BLM	NPL	SGCN
Accipiter gentilis atricapillus	Northern Goshawk	SC	S			1B
Aix sponsa	Wood Duck					1B
Ammodramus savannarum ammolegus	Arizona grasshopper sparrow		S	S		1B
Ammodramus savannarum perpallidus	Western Grasshopper Sparrow					1B
Ammospermophilus harrisii	Harris' Antelope Squirrel					1B
Anaxyrus microscaphus	Arizona Toad	SC		S		1B
Aquila chrysaetos	Golden Eagle			S		1B
Aspidoscelis flagellicauda	Gila Spotted Whiptail					1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Castor canadensis	American Beaver					1B
Chordeiles minor	Common Nighthawk					1B
Coccothraustes vespertinus	Evening Grosbeak					1B
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	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	Lincoln's Sparrow					1B
Melozone aberti	Abert's Towhee		S			1B
Microtus mexicanus	Mexican Vole					1B
Micruroides euryxanthus	Sonoran Coralsnake					1B
Myotis occultus	Arizona Myotis	SC		S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Odocoileus virginianus	White-tailed Deer					1B
Panthera onca	Jaguar	LE				1A
Passerculus sandwichensis	Savannah Sparrow					1B
Perognathus amplus	Arizona Pocket Mouse					1B
Phrynosoma solare	Regal Horned Lizard					1B
Progne subis hesperia	Desert Purple Martin			S		1B
Setophaga petechia	Yellow Warbler					1B
Strix occidentalis lucida	Mexican Spotted Owl	LT				1A
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Troglodytes pacificus	Pacific Wren					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 plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before leaving the site. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants, https://agriculture.az.gov/. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control, http://www.usda.gov/wps/portal/usdahome. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information https://www.azgfd.com/hunting/regulations.

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

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

Based on the project type entered, coordination with the Environmental Protection Agency may 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:

Phoenix Main Office
2321 W. Royal Palm Rd, Suite 103
Phoenix, AZ 85021
Phone: 602-242-0210
Fax: 602-242-2513

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

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