

September 28, 2016

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED AGENCIES AND PUBLIC GROUPS:

As required by 31 Texas Administrative Code (TAC) § 371.41 of the rules of the Texas Water Development Board (TWDB), the project identified below has been reviewed in accordance with provisions of the National Environmental Policy Act (NEPA), 42 U.S. Code § 4321 *et seq.* This project is funded through the Drinking Water State Revolving Fund (DWSRF), which is administered by the TWDB.

Town of Anthony, El Paso County, Texas
Arsenic Treatment Plant and Water System Improvements Project
TWDB Project Number 62611
Total TWDB Commitment: \$1,041,936 (L1000269, LF1000270)

The Town of Anthony (Town) is located in El Paso County in western Texas approximately 18 miles northwest of the city of El Paso. The Town provides drinking water to a population of approximately 3,041. For its raw-water supply, the Town is solely reliant on two wells producing from the Hueco-Mesilla Bolsons Aquifer. These wells have a combined yield of approximately 1,042 gallons per minute (gpm), whereas peak demand is 851 gpm, or approximately 82% of the available supply. Formerly, the Town utilized three wells, but one failed in 2012, reducing the potential yield to its current level, which narrowly exceeds minimum requirements. If groundwater production were to decline further the community's available water supply would be insufficient.

Water quality is also an issue of concern. The Town disinfects the raw water by chlorination at its existing facilities, but in 2008, testing showed that the treated water contained concentrations of arsenic in excess of the permissible maximum contaminant level (MCL), 0.010 milligrams per liter (mg/l). Concentrations of total dissolved solids were also high, near the 1,000 mg/l MCL. As a result, the Town's water system was, until recently, operating under a compliance agreement with the Texas Commission on Environmental Quality (TCEQ), signed on January 15, 2009. Later testing indicated that arsenic concentrations in the treated water had fallen below the enforcement threshold and TCEQ subsequently rescinded the agreement. Nonetheless, the Town plans to take steps to improve water quality and increase its water supply.

The Town is proposing to implement water system improvements utilizing funds from the DWSRF. On April 17, 2014, the Town received commitments for a loan and loan with forgiveness from the TWDB in the amounts of \$735,000 and \$306,936, respectively, totaling \$1,041,936. The Town closed the loans in the full amount on August 26, 2014, for planning, acquisition, design, and construction. Initially, the Town planned to rehabilitate existing Well 2, but that proved infeasible. The added cost of replacing the well, along with the incurred and anticipated costs for planning, acquisition, and design

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of the other improvements, would have exceeded the available funding. To drill a new well and construct related infrastructure, the Town applied for an additional \$980,000 construction loan and received a commitment in that amount from the TWDB on September 22, 2016. With the new loan, the TWDB's total DWSRF commitment to the project is \$2,021,936. As of the present date, the Town has not yet closed the new loan. Total estimated cost of the entire proposed project is \$8,491,883, but the Town has not sought the balance of the required funding.

The Town's proposed improvements include installation or construction of: 1) a new 16-inch diameter water-supply well (to be designated Well 2R), drilled to a depth of approximately 900 feet; 2) a new 600 gpm arsenic treatment facility; 3) a new 250,000-gallon elevated storage tank to replace an existing 125,000-gallon standpipe (to be abandoned); 4) new water pumps to replace pumps currently in operation at existing Booster Pump Stations 1 and 2; 5) approximately 6,350 feet of new 10- to 12-inch diameter well-water collection pipelines; 6) a new pressure reducing station; 7) 15,850 feet of 6-, 8-, and 12-inch diameter potable water distribution pipelines, to replace existing lines; and 8) a new Supervisory Control and Data Acquisition system. Other project elements include: 9) acquisition of land for the new arsenic treatment plant, an additional well site (potential Well 4), collection and transmission pipeline easements, and other water-system improvements; 10) rehabilitation of existing water-supply Wells 1 and 3; 11) decommission and plug existing Well 2; and 12) well-site and other electrical improvements, fencing, pump inspection and testing, and appurtenances. The new water-supply well would be drilled on property currently owned by the Town and is expected to yield 1,200 gpm, which would fulfill the Town's needs. The improved level of water treatment is intended to eliminate any excess contaminants, thereby enabling the Town's water system to continue to operate within permitted water quality limits.

An environmental review of the proposed project has been completed following the terms and conditions of 31 TAC Chapter 371, Subchapter E, and consistent with NEPA. The Executive Administrator of the TWDB made a preliminary decision not to require the preparation of an Environmental Impact Statement. Instead, the environmental review is documented in the enclosed Environmental Assessment, which stipulates mitigative measures that will be implemented during project construction. In order to ensure that the proposed project will have no significant environmental impact, the loan is conditioned as follows.

- Construction of the proposed water pipeline crossing the East Canal must comply with provisions of United States Army Corps of Engineers Nationwide Permit 12 for Utility Line Activities.
- If archeological features or historic period artifacts related to the El Camino Real de Tierra Adentro, a National Historic Trail, are discovered during construction, work in that part of the project area must cease immediately and the Town of Anthony must notify the National Trails Intermountain Region, which is a

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consulting party with the Texas Historical Commission and the Texas Water Development Board regarding actions that would affect these cultural resources.

- To ensure compliance with the Migratory Bird Treaty Act, vegetation clearing (woody plants and grasses and other groundcover) should be avoided during the general bird nesting season, March 15 through September 15, but if clearing cannot be avoided, the areas to be impacted must be surveyed by a qualified biologist for active nests, including those of ground-nesting birds, and any active nests must be protected by maintaining a 150-foot buffer of vegetation around each nest or the nesting area until the young have fledged or the nest is abandoned. Construction personnel must be instructed regarding the potential for encountering nesting birds in the project area and the requirement to avoid disturbing them.
- Prior to construction, and during construction as feasible, the project area must be resurveyed by a qualified biologist to assess the possible presence of horned lizards, Chihuahuan Lyre Snake, mammal burrows that may be occupied by Western Burrowing Owls, Pecos River Muskrat, and Sand Prickly Pear cactus. If any of the animal species are present a qualified biologist must identify areas to be avoided, ensure opportunities for the animals to leave the area, and relocate individuals as appropriate. Construction personnel must be instructed regarding the potential for encountering these species and the requirement to avoid disturbing them. If the plant species is present and would be in a construction, staging, or other project-related area, the Town must contact the Texas Parks and Wildlife Department, Wildlife Habitat Assessment Program, for further coordination and possible salvage of plants and/or seeds for seed banking. Plants not in the direct path of construction must be protected by markers or fencing and by instructing construction workers to avoid any harm.
- To ensure compliance with the Texas Parks and Wildlife Code, the Town must construct and maintain throughout the period of construction a series of exclusion fences (modified erosion/sediment-control fences) to exclude reptiles from construction areas. The fences must be inspected by a biologist to ensure their ability to restrict access. All open trenches must be covered overnight or inspected every morning to ensure that no horned lizards or other reptiles have been trapped.
- Standard emergency condition for the discovery of cultural resources.
- Standard emergency condition for the discovery of threatened or endangered species.

The Town has also agreed to minimize removal or disturbance of vegetation, particularly native trees and shrubs, wherever practicable, and to replace/restore these species on site, reseed disturbed areas with native species, and prevent establishment of invasive species.

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Documentation supporting this decision is on file in the offices of Regional Water Project Development, TWDB, and is available for public scrutiny upon request. Comments concerning this preliminary environmental determination may be submitted to the Director, Regional Water Project Development, Texas Water Development Board, Post Office Box 13231, Austin, Texas 78711-3231. After evaluating the comments received, the Executive Administrator will make a final determination regarding the provision of federal financial assistance for this project; however, no action will be taken for at least 30 calendar days after release of this Finding of No Significant Impact.

Sincerely,

T. Clay Schultz, Director
Regional Water Project Development

Enclosures

SCC:

Town of Anthony, El Paso County, Texas
Drinking Water State Revolving Fund, Project Number 62611
Arsenic Treatment Plant and Water System Improvements Project
Environmental Assessment

INTRODUCTION/BACKGROUND¹

With support from the Texas Water Development Board (TWDB), the Town of Anthony (Town) proposes to construct an improved and expanded water treatment system. The Town plans to finance planning, acquisition, design, and construction of the proposed project using funds from the Drinking Water State Revolving Fund (DWSRF), which is administered by the TWDB. On April 17, 2014, the Town received commitments for a loan and loan with forgiveness in the amounts of \$735,000 and \$306,936, respectively. The Town closed these loans, totaling \$1,041,936, on August 26, 2014. Initially, the Town planned to rehabilitate existing Well 2, but that proved infeasible, and the added cost of replacing the well, along with the incurred and anticipated costs for planning, acquisition, and design of the other improvements, would have exceeded the available funding. To drill the new well and construct related infrastructure, the Town applied for an additional \$980,000 construction loan and received a commitment in that amount from the TWDB on September 22, 2016. With the new loan, the TWDB's total DWSRF commitment to the project is \$2,021,936. As of the present date, the Town has not yet closed the new loan. Total estimated cost of the entire proposed project is \$8,491,883, but the Town has not sought the balance of the required funding.

PURPOSE AND NEED

The Town provides drinking water to a population of approximately 3,041. At present, the Town's only raw-water supply comes from two wells producing from the Hueco-Mesilla Bolsons Aquifer. These wells have a combined yield of approximately 1,042 gallons per minute (gpm), whereas peak demand is 851 gpm, or approximately 82% of the available supply. The Town formerly utilized three wells, but one failed in 2012, reducing the potential yield to its current level, which narrowly exceeds minimum requirements. If groundwater production were to decline further the community's available water supply would be insufficient.

Water quality is also an issue of concern. The Town chlorinates raw water at its existing facilities, but in 2008, testing showed that the treated water contained concentrations of arsenic in excess of the permissible maximum contaminant level (MCL), 0.010 milligrams per liter (mg/l). Concentrations of total dissolved solids were also high, near the 1,000 mg/l MCL. As a result, the Town's water system was, until recently, operating under a compliance agreement with the Texas Commission on Environmental Quality (TCEQ), signed on January 15, 2009. Later testing indicated that arsenic concentrations in the treated water had fallen below the enforcement threshold and TCEQ subsequently rescinded the agreement. Nonetheless, the Town plans to take steps to improve water quality and increase its water supply.

¹ Anthony, Texas (June, 2016). *Environmental Information Document for the Arsenic Treatment Plant and Water System Improvements, Anthony, Texas* (Prepared by Kelley Environmental Consulting Services for Parkhill, Smith & Cooper, Inc.). Received by TWDB on June 29, 2016.

EVALUATION OF ALTERNATIVES

The Town evaluated four alternative means of addressing the deficiencies in its water treatment system, including “no action” and the preferred approach. These alternatives include:

- Take no action.
- Purchase treated water from the El Paso Water Utility and transport it through a new 12-inch diameter pipeline crossing the Rio Grande, utilizing a new 50,000-gallon ground storage tank;
- Drill a new water-supply well, construct a new water treatment facility, and make additional improvements including construction of a new 12-inch diameter transmission main connecting the new arsenic treatment plant to an existing, 600,000-gallon ground storage tank, and installation of two or more pressure reducing stations; and
- Construct and install the same water-supply well, arsenic treatment facility, and other improvements discussed above, but with the addition of a new 250,000-gallon elevated storage tank to maintain system pressure in lieu of the new 12-inch diameter transmission main and pressure reducing stations.

The no-action alternative would incur no additional financial costs or construction-related environmental effects, but would not satisfy the demonstrated need for an additional water supply, improved water treatment, and other system improvements. The purchase and transmission of treated water from El Paso Water Utility would ensure a suitable water supply, but would incur unacceptable financial costs, project delays for planning, acquisition, design, and construction, and permitting, and the direct environmental impact associated with pipeline construction. In comparison, construction of a new well, enhanced water treatment and distribution system, and related infrastructure would require lower initial and maintenance costs, offer an earlier implementation date, and minimize environmental effects. The difference between the two alternatives involving these improvements is primarily related to the methods of maintaining system pressure. Construction of the new 12-inch diameter transmission main and multiple pressure reducing stations would incur a higher initial cost than installation of a new 250,000-gallon elevated storage tank. After reviewing all alternatives, the Town selected the latter alternative, which is described in greater detail below.

PROJECT DESCRIPTION

The proposed project would address deficiencies and operational limitations affecting the Town’s water-supply, treatment, and transmission capacity. The proposed improvements would include installation or construction of:

- 1) a new 16-inch diameter water-supply well (to be designated Well 2R), drilled to a depth of approximately 900 feet into the Hueco-Mesilla Bolsons Aquifer;

- 2) a new 600 gpm arsenic treatment facility;
- 3) a new 250,000-gallon elevated storage tank to replace an existing 125,000-gallon standpipe (to be abandoned);
- 4) new water pumps to replace pumps currently in operation at existing Booster Pump Stations 1 and 2;
- 5) approximately 6,350 feet of new 10- to 12-inch diameter well-water collection pipelines;
- 6) a new pressure reducing station;
- 7) 15,850 feet of 6-, 8-, and 12-inch diameter potable water distribution pipelines, to replace existing lines; and
- 8) a new Supervisory Control and Data Acquisition system.

Other project elements include:

- 9) acquisition of land for the new arsenic treatment plant, an additional well (potential Well 4), collection and transmission pipeline easements, and other water-system improvements;
- 10) rehabilitation of existing water-supply Wells 1 and 3;
- 11) decommissioning and plugging existing Well 2; and
- 12) well site and other electrical improvements, fencing, pump inspection and testing, and appurtenances.

The new water-supply well (Well 2R) would be drilled on property currently owned by the Town and is expected to yield 1,200 gpm, which would fulfill the Town's needs. The improved level of water treatment is intended to eliminate any excess contaminants, thereby enabling the Town's water system to continue to operate within permitted water quality limits.

SOCIAL AND ENVIRONMENTAL CONTEXT

The social and environmental context of the proposed project area is defined by socioeconomic, physical, ecological, and historical/archeological conditions and resources throughout the region and within the affected community. Conditions relevant to this assessment are summarized below. Assessment of any potentially adverse effects on these resources falls under the authority of various regulatory agencies. These agencies have reviewed the project and addressed questions concerning the proposed construction area and practices (see "Agency Coordination").

Location, Population, and Income

The proposed project area is located in the southern part of the town of Anthony in extreme northwestern El Paso County, Texas, primarily at the sites of the Town's existing well field and water treatment facility. El Paso County lies along the common borders of the United States and Mexico and of Texas and New Mexico. The Town is 15 miles north of the international boundary and straddles the Texas-New Mexico border. Although part of the community lies north of the state border in Dona Ana County, New Mexico, none of the proposed construction to be funded by the TWDB would occur outside of Texas or provide services to the Town's northern section. Currently, the Town provides potable water to approximately 3,041 residents in Texas.

The nearest cities in the United States with a population exceeding 50,000 are El Paso, Texas, 18 miles southeast of the project area, and Las Cruces, New Mexico, 23 miles to the northwest. In 2014, Per Capita Income (PCI) within the community was \$11,849, which was 44.7% of the Texas PCI of \$26,513. Approximately 28.0% of the population was living in poverty compared to 17.2% of Texas's residents. In 2010, 69.4% of the Town's populace was Hispanic, as was 37.6% of the state's population.

Landforms

The Town and proposed project area are part of the Basin and Range physiographic province, which encompasses much of the western interior of the United States and Mexico. Comprising a series of mountain ridges and topographic basins, the province is also dissected by several major rivers. The Town lies within the valley of one of these rivers, the Rio Grande, occupying the river's low-relief floodplain and fluvial terraces just west of the foothills of the Franklin Mountains range. Local landforms within this area are depicted on the Canutillo 7.5-minute quadrangle map. Elevation ranges from approximately 3,790 to 3,990 feet above mean sea level, and the average slope gradient is essentially uniform: approximately 1.1%, declining to the west.

Climate

The project area is characterized by a Subtropical Arid climate with occasional summertime (monsoonal) precipitation anomalies. Extended periods of complete drought and below-normal precipitation are common. Relative humidity is low, as is the amount and frequency of precipitation. Average annual precipitation is approximately 8 inches including a small amount of snow-melt equivalent. Much of the rainfall occurs during the summer months. Temperatures vary widely from season to season and on a diurnal basis. Mean annual temperature is 63 degrees Fahrenheit (°F) and the mean monthly high and low temperatures range from 96 °F in June and July to 29 °F in January and December. Prevailing winds are predominately westerly to southwesterly in spring, southerly to southeasterly in summer, southerly to northerly in autumn, and northerly to northeasterly in winter. Average gross lake-surface evaporation is approximately 81 inches.

Geology, Groundwater, and Soils

The substrate on which the proposed project would be constructed consists of thick Quaternary floodplain and fluvial-terrace deposits of the Rio Grande, overlain in places by eolian sheet and dunal sands. These surficial and near-surface sediments consist of calcified and gypsiferous sand and silt and compose part of the fill of the Mesilla Bolson. In this area, the fill deposits are as much as 1,000 feet thick, overlying highly faulted Permian and Cretaceous bedrock that is not exposed locally, but crops out in hills to the east. The fill constitutes part of the Hueco-Mesilla Bolsons Aquifer, a major source of groundwater and the Town's sole water source. Historical pumping, primarily for agriculture and municipal use, has caused water levels within the aquifer to decline while increasing groundwater salinity. Elevated salinity and high concentrations of naturally occurring arsenic may occasionally exceed drinking water standards and must be reduced during treatment. The current project is intended to address this and other issues.

Within the project area there are a number of mapped soil series and associations, including the Augustin, Anapra, Bluepoint, Gila, Glendale, Harkey, Pajarito, Saneli, Tigua, and Vinton. All of these soils are thick, well drained, and slowly to moderately permeable. They developed under thermic and aridic conditions in fluvial, alluvial-fan, and eolian sediments on slopes generally less than 5%. Although tillage agriculture was the predominant land use throughout the project area historically, and part of the property remains under cultivation, none of these soils is classified as a “prime soil” as defined by the Farmland Protection Policy Act (7 USC 658, Sec 1540(b)). Therefore, conversion of the land to other permanent uses is not subject to the mitigative provisions of this Act.

Surface Water, Floodplains, and Wetlands

The Town lies entirely within the watershed of the Rio Grande, which flows generally southward and southeastward to the Gulf of Mexico, approximately 1,260 miles downstream. At its closest point, the community is approximately one mile northeast of the Rio Grande. An intermittent tributary of the river traverses the proposed project area. This stream is unnamed on the Canutillo topographic map, but is elsewhere identified as Anthony Wash, and is currently designated a Special Flood Hazard Area (Zone A, 100-year floodplain) by the Federal Emergency Management Agency (FEMA). As part of the environmental assessment of the proposed project, the Town’s environmental consultant coordinated with the local Floodplain Administrator. The administrator informed the consultant that recent changes in the heights of water-control levees within the community had effectively reduced the extent of the floodplain, and that FEMA’s forthcoming revised flood-hazard map would reflect these changes, such that all of the proposed construction sites would lie outside of the flood-hazard area (see “Agency Coordination”). In addition, the Town intends to elevate the proposed well site and water treatment facility two feet above the present grade to afford further protection.

An artificial waterway, known as the East Canal, drains southward through the western part of the project area and a proposed pipeline would cross the canal. The canal conveys excess runoff to the Rio Grande and is classified as a Water of the United States under the regulatory authority of the United States Army Corps of Engineers (USACE; see “Agency Coordination”). After reviewing the project, the USACE determined that construction of the pipeline must comply with the provisions of Nationwide Permit 12 for Utility Line Activities. There are no other defined streams or other natural or artificial bodies of surface water within the project area, and the United States Fish and Wildlife Service (USFWS) does not recognize any potentially protected wetlands in the area or nearby.

Flora and Fauna

Much of western Texas, including the proposed project area, is in the Chihuahuan Desert ecoregion of the United States and Mexico. Natural plant and animal communities of this ecoregion primarily include species that are adapted to arid conditions, particularly at lower elevations where grassland and open shrubland assemblages are predominant, although riparian woodlands line the river and major streams. Remnants of undisturbed habitat sustain examples

of these assemblages, consisting of drought-tolerant native grasses and herbs and woody plants along the waterways, on hillslopes, and in mountainous terrain. Throughout most of the region, however, the biota composing these assemblages have changed as a consequence of historic land use. The project area itself has undergone four centuries of significant disturbance including intensive clearing for tillage agriculture and grazing and an ever increasing density of housing, commercial development, and transportation infrastructure. Agriculture has long been enhanced by irrigation utilizing water diverted from the Rio Grande and, more recently, groundwater pumped from the Hueco-Mesilla Bolsons Aquifer.

As part of the current impact assessment, the biota of the project area was surveyed in detail. The following information regarding the flora is based on field observations by the Town's environmental consultant. At the time of the survey, the dominant grass species were Three-awn, Lovegrass, Bermuda grass (non-native), Giant Cane (non-native), and one or more unidentified grasses. Common herbaceous species included Russian Thistle (non-native), Wild Mustard, Amaranth, False Dalea, Broomweed, Mormon Tea, and Bluecurls. Woody vegetation included unspecified elm (*Ulmus* sp.), Acacia, Honey Mesquite, Soaptree Yucca, Four-winged Saltbush, Poverty Weed, Creosote, Desert Willow, Salt Cedar (*Tamarix* sp., non-native), Chinaberry (non-native), and one or more species of ornamental juniper (non-native). Small stands of more diverse, native vegetation were found in the western part of the project area, but because these areas are not slated for construction activities the plants are not noted here (see Environmental Information Document, p. 7, for a complete list).

The Town's environmental consultant reported that the project area may afford suitable habitat for protected reptiles, including horned lizards (*Phrynosoma* spp.) and the Chihuahuan Desert Lyre Snake, but because the area was surveyed in winter, the presence or absence of these species could not be determined. No observations of other fauna were provided. The Town agreed to resurvey the area during a suitable season.

Endangered and Threatened Species

Below is a compilation of state and/or federally listed endangered or threatened species known to exist or to have existed historically in El Paso County, along with their current status and generally recognized habitats. None of these species or their preferred habitats are likely to be found in the proposed project area. One or more species of horned lizard may be present, but a survey of the project area failed to document its occurrence. Nonetheless, the Town has agreed to implement measures to protect horned lizards, other reptiles, and migratory birds on a proactive basis.

Symbols

LE: Federally listed endangered

LT: Federally listed threatened

LT/SA: Threatened because similar in appearance to threatened taxon

LC: Candidate for federal listing

DL: Federally delisted

E: State listed endangered

T: State listed threatened

Black-footed Ferret (*Mustela nigripes*): LE. Extirpated; formerly inhabited prairie dog towns in the general area.

Black Bear (*Ursus americanus*): LT/SA, T. Bottomland hardwood forests.

Gray wolf (*Canis lupus*): LE, E. Extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, and grasslands.

Peregrine Falcon (*Falco peregrinus*): DL, T. Coastal and interior prairies and lakes, but occupies wide range of habitats. Potential migrant.

Northern Aplomado Falcon (*Falco femoralis septentrionalis*): LE, E. Savannahs, open woodlands, arid shrublands

Interior Least Tern (*Sterna antillarum athalassos*): LE, E. Streams and rivers.

Sprague's Pipit (*Anthus spragueii*): LC. Native upland prairies and coastal grasslands. Possible migrant.

Mexican Spotted Owl (*Strix occidentalis lucida*): LT, T. Coniferous mountain woodlands.

Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*): LT. Riparian deciduous woodlands with dense understory.

Southwestern Willow Flycatcher (*Empidonax trailii extimus*): LE, E. Thickets along desert streams.

Mountain Short-horned Lizard (*Phrynosoma hernandesi*): T. Open, shrubby, wooded areas with sparse vegetation at ground level; soil may vary in texture from sandy to rocky; burrows into soil or occupies rodent burrows when inactive; breeds March-September.

Texas Horned Lizard (*Phrynosoma cornutum*): T. Open, arid, and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.

Chihuahuan Desert Lyre Snake (*Trimorphodon vilkinsonii*): T. Crevice-dwelling in predominantly limestone-surfaced deserts.

Bluntnose Shiner (*Notropis simus simus*): T. Considered extinct in the wild. Rio Grande main channel, often below obstructions.

Rio Grande Silvery Minnow (*Hybognathus amarus*): LE, E. Extirpated. Historically in Rio Grande and Pecos river systems and canals, in pools and backwaters.

Sneed's Pinchusion Cactus (*Escobaria sneedii* var. *sneedii*): LE, E. Xeric limestone outcrops on rocky steep slopes of desert mountains, shrublands, and grasslands.

Archeology and History

El Paso County has sustained a low- to high-density human population for thousands of years. Hunting and gathering, followed by ranching and tillage agriculture, were the principal activities until the Nineteenth and Twentieth centuries, when rail and improved highway transportation allowed the local economy to diversify. The Town's location on flat, thinly vegetated river

terraces in the relatively narrow gap between the Rio Grande to the west and rising and increasingly irregular hilly and mountainous terrain to the east was a prime corridor for north-south movement of animals, people, and commodities from Prehistory to the present. During the Spanish Colonial Period, the El Camino Real de Tierra Adentro roadway was established following trails used by wildlife and Native Americans. Irrigation canals and later, the railroad and highways followed the same alignment.

Despite the long-term presence of humans in the area, a review of the Texas Historical Commission's (THC's) Texas Archeological Sites Atlas disclosed no known archeological sites, historic structures or cemeteries, State Antiquities Landmarks, or properties listed on the National Register of Historic Places within the proposed project area or vicinity in a five-kilometer radius. Almost all of the project area was cleared of natural vegetation historically and has been tilled continually to the present. The area also includes the Town's existing water treatment facility and well field. In light of this record of intensive disturbance, the project area is unlikely to contain significant undiscovered cultural resources. Consistent with the environmental review requirements of the DWSRF program, the Town coordinated with the THC regarding this project (see "Agency Coordination"). The THC confirmed the determination that the proposed project would not affect archeological or historical sites.

Demography and Environmental Justice Analysis

The Town is a small agricultural community in a remote rural area, with a total population of approximately 5,423 (2014 estimate). The community as a whole encompasses 1,007 housing units (2010). The portion of the community in Texas that receives water service is 3,041. Racial and ethnic composition in 2010 was as follows: 69.4 % Hispanic or Latino; 18.3 % non-Hispanic white; 9.2 % black; 2.3% Native American; and 0.8 % "other." The 2014 Median Household Income (MHI) was \$30,541, which was approximately 58.1% of the MHI statewide, \$52,576. PCI within the community was \$11,849 or 44.7% of the Texas's PCI of \$26,513. Approximately 28.0% of the population was living in poverty, compared to 17.2% of Texas's residents.

Persons within the Texas portion of the Town would be the direct beneficiaries of the project. Construction would occur throughout this water-service area. Based on the nature and location of the proposed project and the population and income classifications of the citizens living within the project area, it does not appear that the construction or operation of the water system would adversely or disproportionately affect any particular income or ethnic group within the community. As discussed below (see "Public Participation"), the local populace has consistently supported the proposed water system improvements.

POTENTIAL IMPACTS AND MITIGATIVE MEASURES

The potential environmental impact of the Town's proposed water system improvements includes effects common to most construction projects that are comparable in type, size, and duration, as well as those related to unique attributes of the project area. To ensure due consideration of these effects, the Town conducted a full environmental assessment of the project, prepared an Environmental Information Document (EID) describing the results, held an

advertised open meeting to familiarize the community with the project and solicit public comment, and coordinated with regulatory agencies and other interested parties to define measures needed to avoid, minimize, or mitigate adverse impact.

Agency Coordination

The TWDB ensures compliance with the National Environmental Policy Act (NEPA), other federal and state regulations, and TWDB's own rules and procedures regarding the DWSRF program by requiring project proponents to assess a project's potential environmental and social impact in coordination with specified state and federal agencies and other entities.

On March 25, 2016, the Town's environmental consultant initiated project coordination with the following state and federal regulatory agencies and other stakeholders and interested parties:

- United States Army Corps of Engineers, Regulatory Branch, Albuquerque District, Las Cruces, New Mexico;
- United States Department of the Interior, Fish and Wildlife Service, Ecological Services, Austin Field Office, Austin;
- United States Department of the Interior, National Park Service, Wilderness Act Coordinator, Big Bend National Park;
- United States Department of the Interior, National Park Service, National Trails Intermountain Region, Salt Lake City, Utah;
- United States Department of the Interior, Bureau of Reclamation, Oklahoma-Texas Area Office, Austin;
- United States Department of the Interior, Bureau of Land Management, Oklahoma Field Office, Tulsa, Oklahoma;
- United States Department of Agriculture, Natural Resources Conservation Service, Temple;
- Federal Emergency Management Agency, Insurance and Mitigation Division, Denton;
- International Boundary and Water Commission, United States Section, El Paso;
- Texas Parks and Wildlife Department, Wildlife Habitat Assessment Program, Austin;
- Texas Historical Commission, State Historic Preservation Officer, Austin;
- Rio Grande Council of Governments, El Paso; and
- Town of Anthony Floodplain Administrator, Anthony.

Twelve of these thirteen entities provided written responses. Below is a summary and discussion of comments and recommendations received from these agencies and the conditions that will pertain to the project during construction.

United States Army Corps of Engineers (USACE)

The USACE reviews state and federally funded projects in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Under Section 404, the

USACE regulates the discharge of dredged and fill material in Waters of the United States, including wetlands. USACE responsibility under Section 10 regards regulation of activities within or affecting navigable waters of the United States.

After considering alternatives, the Town determined that the alignment for a proposed 12-inch diameter water pipeline would cross the East Canal, a jurisdictional water, in the northwestern part of the project area. The proposed pipeline would be emplaced by open trenching. On March 28, 2016, the USACE concluded that the project would be subject to the requirements of Section 404, but would qualify for a non-reporting Nationwide Permit 12 for Utility Line Activities be required. The USACE indicated there were no other issues of concern and did not assign a USACE project number.

United States Fish and Wildlife Service (USFWS)

The USFWS has authority to regulate potential effects on: federally listed threatened and endangered species and their habitats under provisions of the Endangered Species Act and other statutes; migratory birds under the Migratory Bird Treaty Act; and other protected biota.

To address these topics, the Town conducted a formal biological survey of the project area and prepared a report summarizing the results. The heavily disturbed nature of the proposed construction sites indicated little potential that the project area would provide habitat for protected species. As a result, the Town determined that the project would have no effect on any protected species known or suspected to be present in El Paso County and so informed the USFWS. On May 2, 2016, the USFWS accepted the project proponent's assessment and indicated it would take no action regarding the project (Consultation 2016-TA-339).

The DWSRF loan is conditioned that if threatened or endangered species are encountered during construction, work in that part of the project area must cease immediately and the Town must notify TWDB staff and the USFWS. Subsequent to notification, mitigation measures would be implemented in accordance with the Endangered Species Act of 1973, as amended, and other applicable regulations.

Wilderness Act Coordinator (WAC)

Among other duties, the WAC routinely assesses the potential impact of proposed water and wastewater projects on Wild and Scenic Rivers. At present, the only river in Texas that has a Wild and Scenic River designation is the 196-mile reach of the Rio Grande from Big Bend National Park in Brewster County downstream to the Terrell-Val Verde county line. The Town's project area is located upstream and approximately 285 miles northwest of this reach and one mile from the river. After reviewing the project's potential environmental impact, the Town determined that it would have no effect on water quality or the rate of discharge of the river. On May 27, 2016, the Rio Grande Wild and Scenic River reviewer effectively concurred with this assessment, stating that the office had no comment on the proposed project. The WAC did, however, refer the project to the National Trails Intermountain Region office in Salt Lake City, Utah, for further coordination.

National Trails Intermountain Region (NTIR)

During coordination with the WAC, WAC referred the project to the NTIR. In a letter dated April 19, 2016, the NTIR informed the Town that the proposed project area “is in the direct vicinity of [the] El Camino Real de Tierra Adentro National Historic Trail (NHT),” and stated that “there is a possibility of sub-surface archaeological features associated with use of the NHT. The possibility of these archaeological features should be taken into account in the environmental review process. Please list the National Park Service National Trails Intermountain Region as a consulting party for this undertaking.” Following further discussion with the Town’s environmental consultant, the NTIR provided clarification of the comments above in an electronic mail message dated April 20, 2016: “The intent of my letter was not to suggest you require a full archaeological inventory of the proposed project area, but rather to serve as a ‘heads up’ in case archaeological materials are encountered during construction. As proposed by yourself, the standard discovery clause [TWDB standard emergency condition for discovery of cultural resources] is likely to be sufficient but [we suggest mentioning the NHT specifically] so that personnel may be aware of the potential for historic period artifacts...[For] NEPA or NHPA [National Historic Preservation Act] compliance please list our office as a consulting party and be sure to copy us on any correspondence that results in changes in the proposed undertaking or in the unlikely event sub-surface archaeological materials are encountered during construction.”

All DWSRF loans are conditioned that if archeological sites or other cultural resources are discovered during construction, work in that part of the project area must cease immediately and the project proponent must notify the Texas Historical Commission (THC) and the TWDB of the discovery. The THC and TWDB would then proceed in accordance with regulations of the Advisory Council on Historic Preservation (36 CFR Part 800) prior to taking any action that would affect the cultural resources. Regarding the current project, should archeological features or historic period artifacts related to the NHT be discovered, the Town also must notify the NTIR in its role as a consulting party regarding actions that would affect these cultural resources.

Bureau of Reclamation (BOR)

The Town contacted the BOR to determine whether the proposed project might conflict with projects under implementation by that agency. The BOR provided no response, but the Town determined that its water improvement project would have no known potential conflicts with BOR projects or other activities.

Bureau of Land Management (BLM)

The Town contacted the BLM to determine whether the proposed project might conflict with projects under implementation by that agency. On April 4, 2016, the BLM responded, stating that “No BLM interests would be affected by this project.”

Natural Resources Conservation Service (NRCS)

The NRCS reviews project proposals in accordance with the Farmland Protection Policy Act (FPPA). The purpose of the review is to determine whether the project area contains Important Farmland Soils (IFS) as defined in the FPPA and, if present, whether areas with these soils have been previously converted to land uses that would exempt them from protection under the FPPA.

The Town utilized the NRCS's online Web Soil Survey soil-mapping tool to produce a soil series map of the project area and a report listing the types and properties of those soils. The report indicated there are no IFS within the project area. On April 8, 2016, the NRCS determined that the project might indeed encompass IFS subject to regulation under the FPPA, but that because the project area is within the Town's city limits, these locations would have been "prior converted" to other uses that made the FPPA inapplicable.

Federal Emergency Management Agency (FEMA)

The FEMA administers the National Flood Insurance Program (NFIP) under provisions of the Flood Disaster Protection Act and prepares floodplain maps used to determine risk susceptibility. The TWDB State Revolving Funds Floodplain Policy prohibits financial assistance for any project element that is proposed to be constructed in a floodplain when that project element is eligible for coverage and the project proponent is an NFIP participant and not on the FEMA's sanctioned list.

In 1975, the FEMA published floodplain maps of communities in El Paso County, including the Town. Although the Town is not a participant in the NFIP, it conducted coordination with the FEMA regarding the proposed project. In a letter dated March 30, 2016, the FEMA indicated that the project must comply with Executive Orders 11988 and 11990 and the Town must coordinate with the local floodplain administrator. See below regarding the results of this additional coordination with the Town's and county's floodplain administrators.

International Boundary and Water Commission (IBWC)

The IBWC, United States Section, reviews proposed construction projects to ensure compliance with national and international regulations and permitting requirements and awareness of potential effects on IBWC projects and infrastructure. At two sites near the Town, the IBWC is planning projects to restore natural conditions along the river, relying on the area's elevated water table to promote flow and plant growth. On April 4, 2016, the IBWC inquired regarding the locations and depths of the proposed new and rehabilitated water wells and their possible effects on shallow groundwater levels along the Rio Grande. The Town's environmental consultant provided the requested information on April 21, 2016, and in a letter dated May 12, 2016, the IBWC indicated that the consultant's response had alleviated its concerns and that it had no further comments.

Texas Parks and Wildlife Department (TPWD)

The TPWD reviewed the proposed project in accordance with the Endangered Species Act of 1973, as amended, the Migratory Bird Treaty Act, and other applicable state and federal regulations and responded to the Town's environmental consultant on March 30, 2016, providing a series of recommendations. The consultant replied on May 3, 2016, addressing each of the recommendations and proposing appropriate mitigation measures. On May 5, 2016, the TPWD concluded that these measures would avoid adverse effects on protected species and indicated that coordination was complete.

The TPWD's recommendations and the consultant's responses on behalf of the Town are provided below.

TPWD 1A: Use sediment-control fencing during construction to exclude wildlife.

Town 1B: The Town agrees to construct and maintain throughout the period of construction a series of exclusion fences (modified erosion/sediment-control fences) at the arsenic-removal plant, well sites, and booster pump sites. The fences would be buried 6 inches below ground and extending 24 inches above ground and would be inspected by a biologist to ensure their ability to exclude reptiles from these construction areas to the extent practicable. All open trenches will be covered overnight or inspected every morning to ensure that no horned lizards or other reptiles have been trapped.

TPWD 2A: To the greatest extent practicable, minimize removal or disturbance of vegetation, particularly native trees and shrubs, replace/restore these species on site, reseed disturbed areas with native species, and prevent establishment of invasive species.

Town 2B: All disturbed areas will be reseeded with native vegetation and the amount of native vegetation clearing will be minimized wherever practicable.

TPWD 3A: Construction personnel must be instructed regarding the potential for encountering nesting birds in the project area and the requirement to avoid disturbing them. Vegetation clearing (woody plants and grasses and other groundcover) should be avoided during the general bird nesting season, March 15 through September 15, but if clearing cannot be avoided, the areas to be impacted must be surveyed for active nests, including those of ground-nesting birds, by a qualified biologist, and any active nests must be protected by maintaining a 150-foot buffer of vegetation around each nest until the young have fledged or the nest is abandoned.

Town 3B: The recommendations are accepted and will be implemented.

TPWD 4A: If habitats suitable for the following species are present in the proposed project area, a qualified biologist must survey the area to assess the possible presence of horned lizards, Chihuahuan Lyre Snake, mammal burrows that may be occupied by Western Burrowing Owls, Pecos River Muskrat, and Sand Prickly Pear cactus, during the period of seasonal activity for these species. If any of the animal species are present a qualified biologist should be present to monitor construction, identify areas to be avoided, ensure opportunities for these animals to leave the area, and relocate individuals as appropriate. Construction personnel must be instructed regarding the potential for encountering these species and the requirement to avoid disturbing them. If the plant species is present and would be in a construction, staging, or other project related area, the Town must contact the TPWD “for further coordination and possible salvage of plants and/or seeds for seed banking. Plants not in the direct path of construction must be protected by markers or fencing and by instructing construction workers to avoid any harm.”

Town 4B: The project area was resurveyed for these and other species and their habitats in May, 2016, under conditions favorable for observation. None of the species were found, but suitable

habitat does exist. The project area will again be surveyed by a qualified biologist prior to construction.

The DWSRF loan is conditioned that if threatened or endangered species are encountered during construction, work in that part of the project area must cease immediately and the Town must notify TWDB staff, TPWD, and the USFWS. Subsequent to notification, mitigation measures would be implemented in accordance with the Endangered Species Act of 1973 as amended and other applicable regulations.

Texas Historical Commission (THC)

On February 22, 2016, the Town's environmental consultant submitted a "Request for SHPO [State Historic Preservation Officer] Consultation" to the THC regarding the proposed project. The THC reviewed the project in accordance with Section 106 of the National Historic Preservation Act, the Antiquities Code of Texas, and other applicable regulations. In a response dated March 29, 2016, the THC assigned the project Tracking Number 201604873 and indicated that no survey of the project area was required and that the project, as proposed, may proceed.

The DWSRF loan is conditioned that if archeological sites or other cultural resources are discovered during construction, work in that part of the project area must cease immediately and the Town must notify the THC and the TWDB of the discovery. The THC and TWDB would then proceed in accordance with regulations of the Advisory Council on Historic Preservation (36 CFR Part 800) prior to taking any action that would affect the cultural resources. As a result of coordination with the WAC and NTIR, the NTIR became a consulting party. Therefore, discovery of archeological features or historic period artifacts related to the NHT would also necessitate notification of the NTIR, which would participate in measures to assess and protect these resources.

Rio Grande Council of Governments (RGCG)

The Town notified the RGCG regarding the proposed project and requested its review and comments. The RGCG provided no response.

Town of Anthony Floodplain Administrator

The Town's floodplain administrator reviews proposed construction projects to ensure compliance with local regulations and permitting requirements and awareness of potentially conflicting or aggregate effects of multiple projects. On April 7, 2016, the administrator stated that the Town's proposed water system improvements "do not interfere with or obstruct FEMA's currently designated flood zone areas, and I concur with their proposed locations."

Public Participation

Public information and participation during facilities planning included a public meeting held at 6:00 PM on June 21, 2016, which was advertised in the *West Texas County Courier*, a newspaper of general circulation in the Town's service area. The notice was published on May 19, 2016, and contained information regarding the availability of planning documents, including the EID,

for public review at Anthony's City Hall during normal business hours. State and federal agencies were sent written notices of the meeting and the availability of the document for review.

Seven persons, including the Town's representatives, attended the public meeting and signed the attendance sheet. No adverse comments were voiced at the public hearing or received during the 30-day public review of the EID.

“Cross-Cutter” Compliance

In accordance with procedures stipulated in 31 TAC § 371.41, the TWDB reviewed the proposed project for possible adverse effects on the quality of the human environment and protected natural resources based on the EID, other information provided by the Town, and additional data sources. Authority for this review ultimately derives from the federal statutes, executive orders, and implementing regulations (“cross-cutters”) listed below, as identified by the United States Environmental Protection Agency.

- (1) National Environmental Policy Act of 1969, PL 91-190;
- (2) Archeological and Historic Preservation Act of 1974, PL 93-291;
- (3) Clean Air Act, 42 USC 7506(c);
- (4) Coastal Barrier Resources Act, 16 USC 3501 *et seq.*;
- (5) Coastal Zone Management Act of 1972, PL 92-583, as amended;
- (6) Endangered Species Act, 16 USC 1531, *et seq.*;
- (7) Executive Order 11593, Protection and Enhancement of the Cultural Environment;
- (8) Executive Order 11988, Floodplain Management;
- (9) Executive Order 11990, Protection of Wetlands;
- (10) Farmland Protection Policy Act, 7 USC 4201 *et seq.*;
- (11) Fish and Wildlife Coordination Act, PL 85-624, as amended;
- (12) National Historic Preservation Act of 1966, PL 89-665, as amended;
- (13) Safe Drinking Water Act, § 1424(e), PL 92-523, as amended;
- (14) Wild and Scenic Rivers Act, PL 90-542, as amended;
- (15) The Wilderness Act, 16 USC 1131 *et seq.*;
- (16) Environmental Justice, Executive Order 12898;
- (17) Flood Insurance Reform Act of 2004, PL 108-264;
- (18) National Flood Insurance Reform Act of 1994, PL 103-325;
- (19) Flood Disaster Protection Act of 1973, as amended, PL 93-234; and;
- (20) Clean Water Act, PL 92-500, as amended.

RECOMMENDATION

Based on a detailed review of the Environmental Information Document, this Environmental Assessment, and other documentation, the water-system improvements project proposed by the Town of Anthony is considered to be environmentally sound with the following conditions.

- Construction of the proposed water pipeline crossing the East Canal must comply with provisions of United States Army Corps of Engineers Nationwide Permit 12 for Utility Line Activities.
- If archeological features or historic period artifacts related to the El Camino Real de Tierra Adentro, a National Historic Trail, are discovered during construction, work in that part of the project area must cease immediately and the Town of Anthony must notify the National Trails Intermountain Region, which is a consulting party with the Texas Historical Commission and the Texas Water Development Board regarding actions that would affect these cultural resources.
- To ensure compliance with the Migratory Bird Treaty Act, vegetation clearing (woody plants and grasses and other groundcover) should be avoided during the general bird nesting season, March 15 through September 15, but if clearing cannot be avoided, the areas to be impacted must be surveyed by a qualified biologist for active nests, including those of ground-nesting birds, and any active nests must be protected by maintaining a 150-foot buffer of vegetation around each nest or the nesting area until the young have fledged or the nest is abandoned. Construction personnel must be instructed regarding the potential for encountering nesting birds in the project area and the requirement to avoid disturbing them.
- Prior to construction, and during construction as feasible, the project area must be resurveyed by a qualified biologist to assess the possible presence of horned lizards, Chihuahuan Lyre Snake, mammal burrows that may be occupied by Western Burrowing Owls, Pecos River Muskrat, and Sand Prickly Pear cactus. If any of the animal species are present a qualified biologist must identify areas to be avoided, ensure opportunities for the animals to leave the area, and relocate individuals as appropriate. Construction personnel must be instructed regarding the potential for encountering these species and the requirement to avoid disturbing them. If the plant species is present and would be in a construction, staging, or other project-related area, the Town must contact the Texas Parks and Wildlife Department, Wildlife Habitat Assessment Program, for further coordination and possible salvage of plants and/or seeds for seed banking. Plants not in the direct path of construction must be protected by markers or fencing and by instructing construction workers to avoid any harm.
- To ensure compliance with the Texas Parks and Wildlife Code, the Town must construct and maintain throughout the period of construction a series of exclusion fences (modified erosion/sediment-control fences) to exclude reptiles from construction areas. The fences must be inspected by a biologist to ensure their ability to restrict access. All open trenches must be covered overnight or inspected every morning to ensure that no horned lizards or other reptiles have been trapped.
- Standard emergency condition for the discovery of cultural resources.
- Standard emergency condition for the discovery of threatened or endangered species.

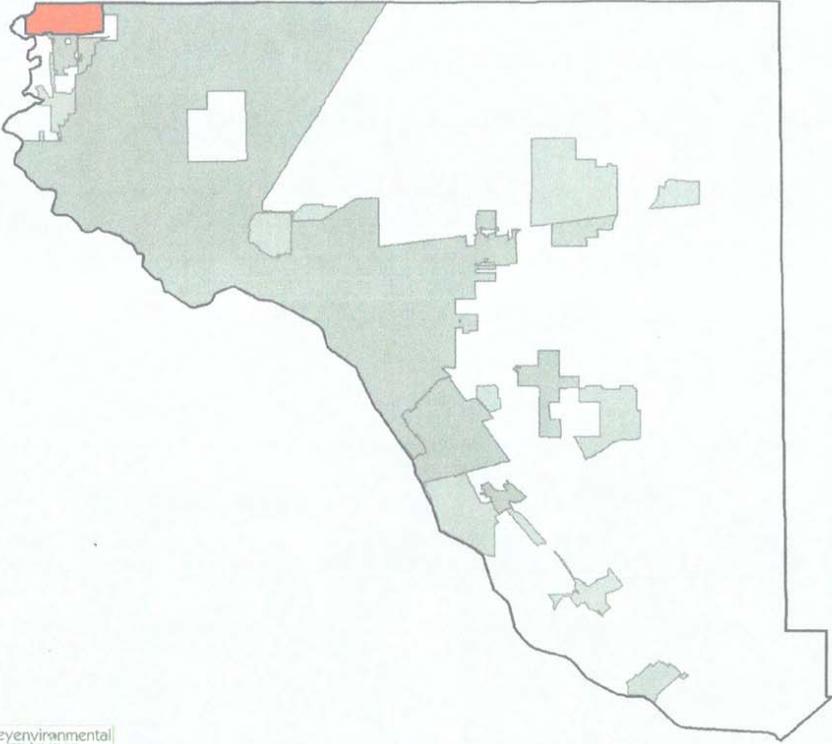
Environmental Assessment
Town of Anthony, El Paso County
DWSRF 62611

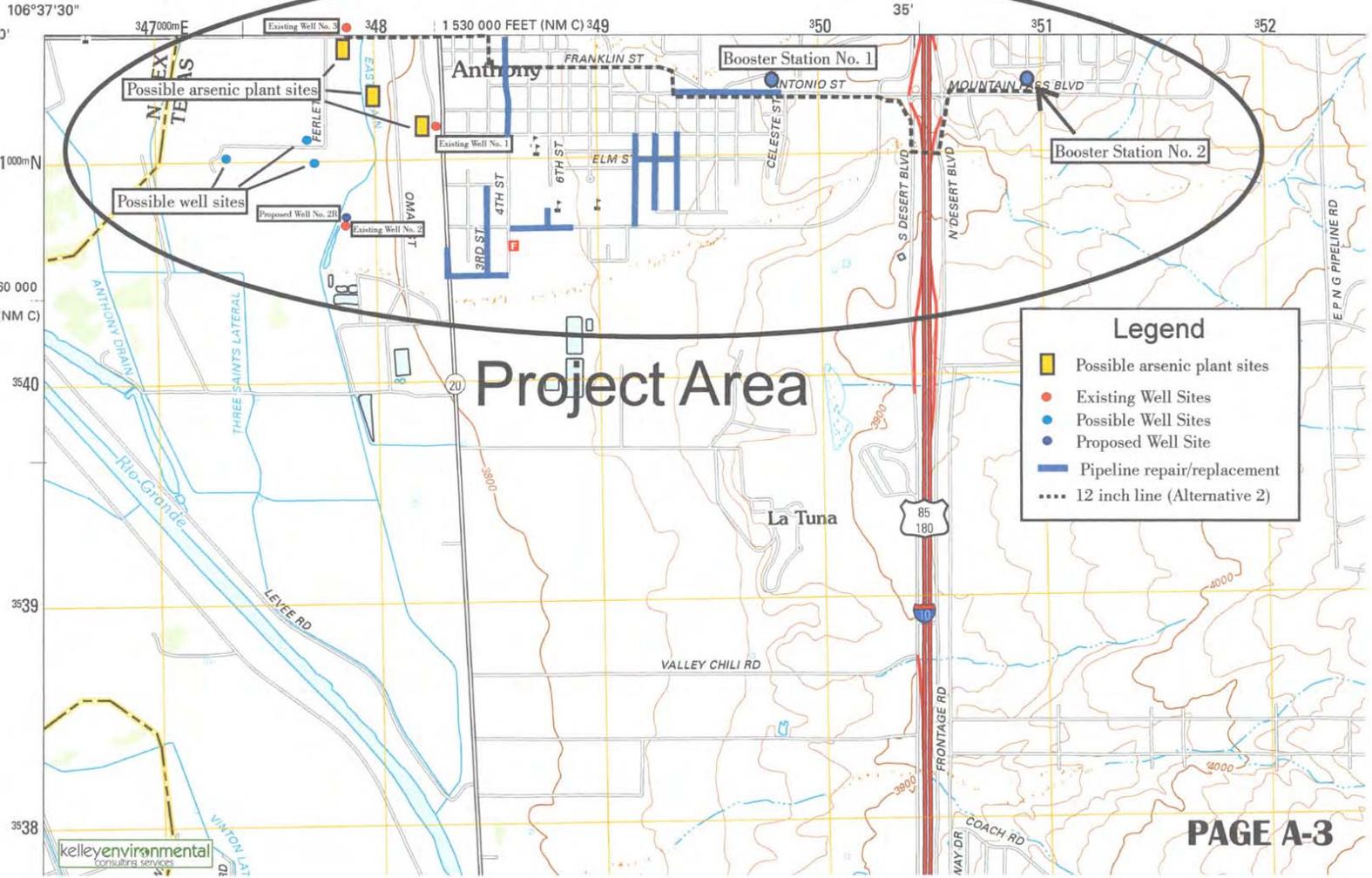
The Town has provided assurance that these measures will be implemented in a manner consistent with the requirements of state and federal regulatory agencies and rules of the TWDB. The Town has also agreed to minimize removal or disturbance of vegetation, particularly native trees and shrubs, wherever practicable, and to replace/restore these species on site, reseed disturbed areas with native species, and prevent establishment of invasive species.

With these conditions, I recommend that the Executive Administrator issue a Finding of No Significant Impact for the Town of Anthony's proposed Arsenic Treatment Plant and Water System Improvements Project as specified above.

SCC:

Arsenic Treatment Plant and
Water System Improvements
Anthony, Tx





106°37'30"

347000E

Existing Well No. 3

348

1 530 000 FEET (NM C) 349

350

35'

351

352

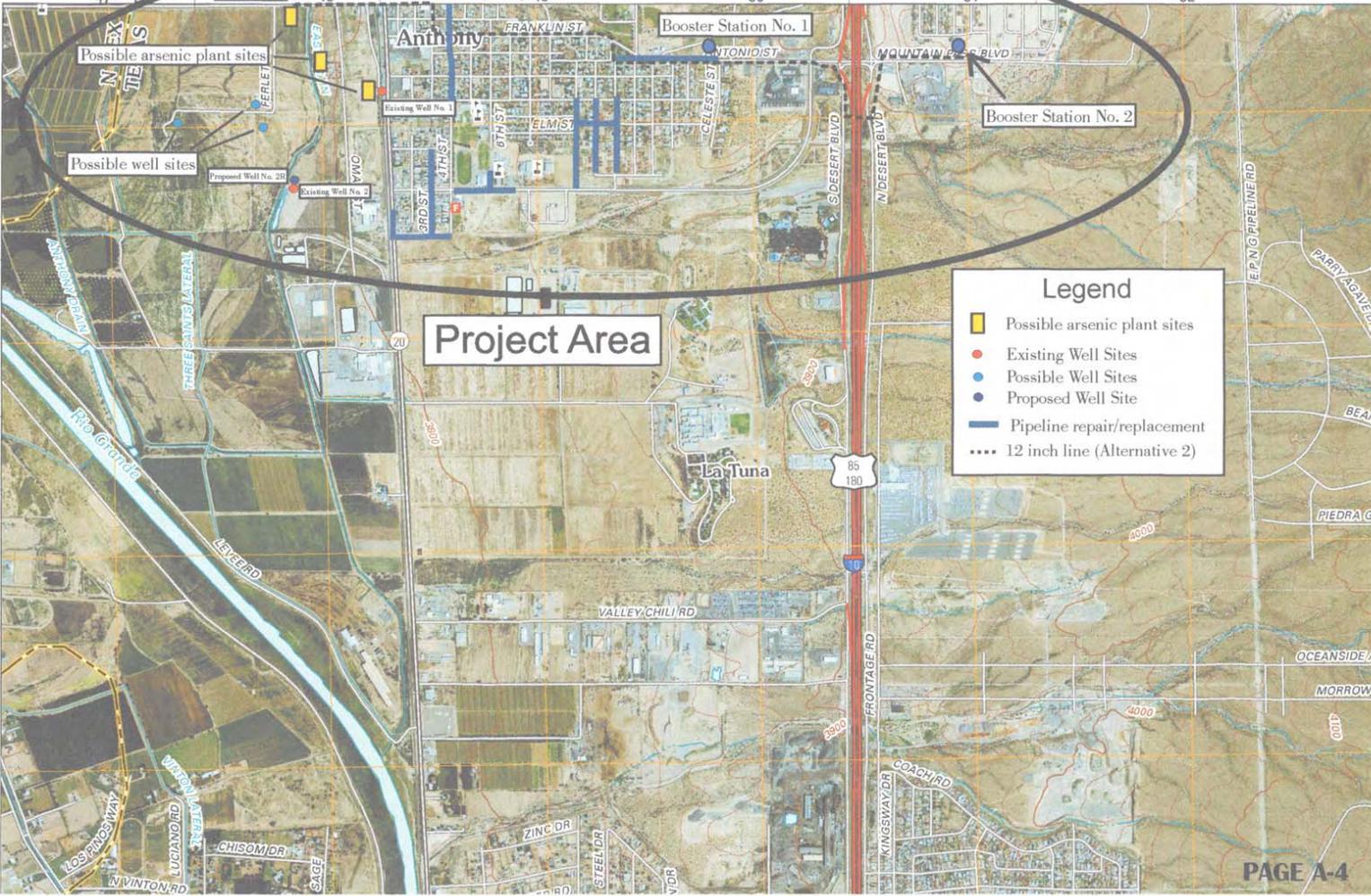
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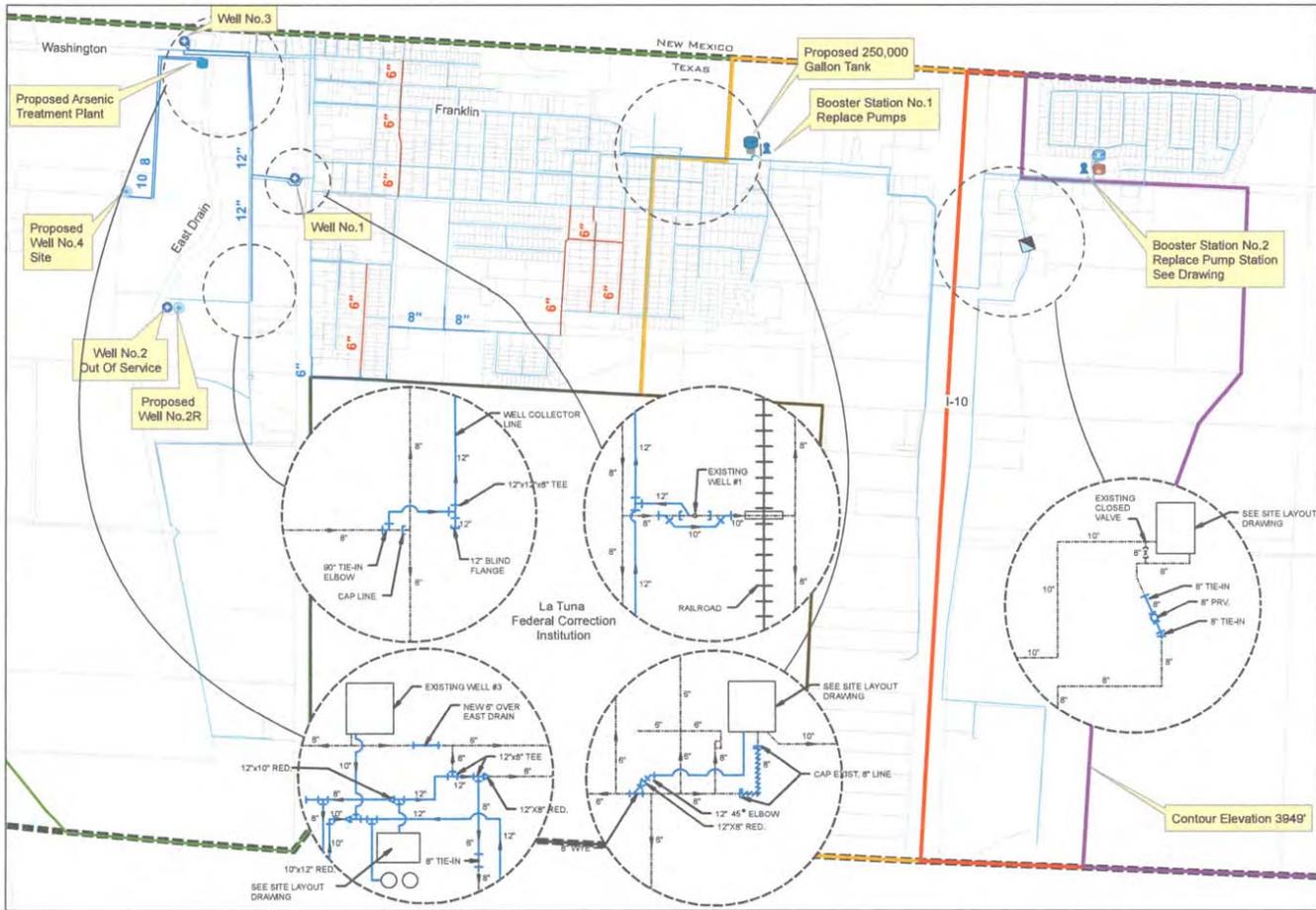
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3538





Legend

- Anthony City Limits
- Pressure Zone 1
- Pressure Zone 2
- Pressure Zone 3B
- Pressure Zone 3A
- New Water Well
- Existing Well
- New 250,000 Gallon Elevated Storage Tank PZ1
- New Arsenic Treatment Plant
- Existing 150,000 Gallon Elevated Storage Tank PZ3
- Existing 600,000 Gallon Ground Storage Tank PZ2
- Pump Station
- Proposed Replaced Water Lines
- Proposed Water Lines
- Existing Water Lines
- Pressure Reducer Valve



Figure 8
Alternative 1
Future Water
System