

DRAFT
ENVIRONMENTAL ASSESSMENT

**UPPER VALLEY/STRAHAN ROAD
WATER TRANSMISSION MAIN INSTALLATION**

EL PASO WATER UTILITIES
CITY OF EL PASO
EL PASO COUNTY, TEXAS



PREPARED FOR:

U.S. Army Corps of Engineers
Albuquerque District

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FINDING OF NO SIGNIFICANT IMPACT

Upper Valley/Strahan Road Water Transmission Main Installation

City of El Paso, El Paso County, Texas

The U.S. Army Corps of Engineers (USACE), Albuquerque District, in coordination with and at the request of the El Paso Water Utility (EPWU), is planning a project for installation of a 36-inch transmission main water utility line within the Upper Valley of El Paso, El Paso County, Texas.

The construction work would be conducted under Section 219 of the Water Resources Development Act of 1992 (Public Law 106-53; 33 U.S.C. 2201 et. seq), and as amended in 2007. The Act authorizes USACE to provide assistance for design and construction for water-related environmental infrastructure and resource protection and development projects. The EPWU is the local sponsor. The proposed construction would be approximately one year beginning in early 2016.

EPWU has a program to upgrade antiquated water lines within the water distribution pipeline infrastructure in order to prevent and alleviate line breaks in the system across the entire EPWU service area. The EPWU proposes to install a new 36-inch water transmission main in two phases (Phase I and II). Phase I installation would consist of approximately 12,086 linear feet of a 36-inch water main from the Rio Grande bridge at West Borderland Road to Strahan Road, and from Strahan Road north to Brianna Court. Phase II would include the installation of approximately 3,700 linear feet of a 36-inch water main along Strahan Road from Brianna Court to Canutillo La Union Avenue, and from Canutillo La Union Avenue along Bosque Road to Cayuse Drive. The total length of the proposed project (Phases I and II) is approximately 3.0 miles, with a proposed construction corridor width of 30 feet. Replacing these water lines would reduce environmental hazards and potential property damages and provide residents with a safe and reliable service. Project activity would be confined to the original water and wastewater distribution and collection system footprint. No new infrastructure networks would be added to the distribution system.

The potential effects of the proposed action are similar to the no-action alternative, with the caveat that the no-action alternative would not support the City of El Paso's effort to provide efficient service and protect groundwater quality. In addition, the no-action alternative would not meet the goals of the Safe Drinking Water Act amendments.

The proposed work would not affect waters of the United States regulated by Section 404 of the Clean Water Act (CWA); therefore a Section 404 Department of the Army (DA) permit would not be needed for the project. The proposed upgrades would not affect the existing topography and would not alter the impervious areas or significantly alter any natural feature or use of the area. Therefore, the planned action is consistent with Executive Order 11988 (Floodplain Management). The proposed work complies with Executive Order 11990 (Protection of Wetlands), as no wetlands are within the project area.

TRC Environmental Corporation (TRC) has been contracted to perform environmental services in support of EPWU's proposed project. The proposed work would occur within existing roadways owned by the City of El Paso, Texas. Consultation for historic resources was requested under Section 106 of the NHPA and the Antiquities Code of Texas. Based on the location of the proposed project area, expectations for intact and significant cultural resources within the APE were extremely low. The entire project area is within the National Register of Historic Places (NRHP) listed Elephant Butte Irrigation District. Because the entire installation would be placed under the existing paved road or within the existing right-of-way,

the potential for intact and significant cultural properties is extremely low. The THC concurred with a “no effect” determination in response to a letter sent directly to the THC by TRC on behalf of EPWU dated September 15, 2015 (Appendix D).

Only short-term negligible adverse impacts to soils, air, noise, aesthetics, and vegetation would occur during construction. No impacts would occur to land use, climate, soils (long-term), air (long-term), wetlands or other waters of the U.S., wildlife, floodplains, special status species, or cultural resources. Socioeconomics would be impacted beneficially, although not to a level of significance, due to an increase in local construction jobs for the proposed project (short-term). Human health and safety would be impacted beneficially, although not to a level of significance, and would be long-lasting. The proposed project would not result in any moderate or significant, short-term, long-term, or cumulative adverse effects.

Best Management Practices incorporated into this proposed project include the following:

- Exposed and disturbed soil surfaces are watered at a frequency sufficient to avoid dust.
- Disturbed soil would be re-vegetated or re-paved following construction.
- Earthmoving and other dust-producing activities are suspended during periods of high winds when dust control efforts are unable to prevent fugitive dust.
- Stockpiles of debris, soil, sand, or other materials are watered or covered.
- Materials transported on- or off-site by truck are covered.
- Trenches would be inspected every morning and throughout the day to prevent small animals from being trapped.

The Proposed Action has been coordinated with Federal, State, tribal and local governments with jurisdiction over the ecological, cultural, and hydrologic resources of the project area. Based on these factors and others discussed in the Environmental Assessment, the Proposed Action would not have a significant effect on the human environment. Therefore, an Environmental Impact Statement would not be prepared for this proposed installation of El Paso water transmission line, and the project is recommended for construction.

TRC Environmental Corporation (TRC) performed a draft environmental assessment titled, “Upper Valley/Strahan Road Water Transmission Main Installation”, dated November 2015. Within the environmental review guidelines of the Council of Environmental Quality found at 40 Code of Federal Regulations (CFR) part 1506, it states in Section 1506.3, paragraph (a), “An agency may adopt a Federal draft or final environmental impact statement or portion thereof provided that the statement or portion thereof meets the standards for an adequate statement under these regulations.”

In addition, stated in the Corps Regulations Implementing NEPA (ER-200-2-2), paragraph 21, “A district commander may also adopt another agency’s EA/FONSI.” Therefore, the Corps has adopted TRC’s environmental assessment.

Date

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Commanding

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ABBREVIATIONS AND ACRONYMS

An	Anapra silty clay loam soils
BMP	Best Management Practices`
CEQ	Council on Environmental Quality
CAA	Clean Air Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
cm	Centimeter
EA	Environmental Assessment
EO	Executive Order
EOR	Element Occurrence Records
EPWU	El Paso Water Utilities Public Service Board
F	Fahrenheit
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
Ga	Gila fine sandy loam soils
GPS	Global Positioning System
Ha	Harkey loam soils
Hk	Harkey silty clay loam
hr	hour
in	inches
m	meters
mg	milligrams
mmhos	millisiemens
MS4	municipal separate storm sewer system
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
NWI	National Wetlands Inventory
NWS	National Weather Service
PM	Particulate Matter
ppb	Parts per billion
ppm	Parts per million
Qal	Quaternary Alluvium geological formation

ABBREVIATIONS AND ACRONYMS

ROW	Right-of-way
Sa	Saneli silty clay loam soils
Sc	Saneli silty loam soils
SGCN	species of greatest conservation need
SWPPP	Stormwater Pollution Prevention Plan
Survey Area	Surveyed Property in El Paso, El Paso County, Texas
T&E	Threatened and Endangered Species
TPWD	Texas Parks and Wildlife Department
TXNDD	TPWD's Natural Diversity Database
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USDA – NRCS	U.S. Department of Agriculture - Natural Resources Conservation Service
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
µg	micrograms
USGS	U.S. Geological Survey
WRDA	Water Resources Development Act

1.0 INTRODUCTION

1.1 Background and Location

The El Paso Water Utilities Public Service Board (EPWU), in cooperation with the U.S. Army Corps of Engineers (USACE) – Albuquerque District, is planning to install new water distribution lines in two phases (Phase I and II) from the Rio Grande bridge at West Borderland Road to Strahan Road, and from Strahan Road north to Brianna Court. Phase II would include the installation along Strahan Road from Brianna Court to Canutillo La Union Avenue, and from Canutillo La Union Avenue along Bosque Road to Cayuse Drive. The total length of the proposed project (Phases I and II) is approximately 3.0 miles, with a proposed construction corridor width of 30 feet (**Appendix A, Figures 1 – 3**). Duration of proposed construction would be approximately one year beginning in early 2016.

The proposed project action would be conducted under Section 219 of the Water Resources Development Act (WRDA) of 1992, as amended. The WRDA authorizes the USACE to provide assistance in the form of design and construction for environmental infrastructure, resource protection, and development projects. Provisions under the WRDA require a proposed project to be publicly owned in order to receive federal assistance. The EPWU is a public service board that manages and controls El Paso Water Utilities and its systems (e.g. water, wastewater, reclaimed, and stormwater systems) and is the non-federal project sponsor. The WRDA further requires that a cooperative agreement be established between the federal and non-federal interests. The federal share of project costs under each cooperative agreement is 75 percent of the total project cost.

The EPWU has collaborated with USACE for construction of the proposed project, including funding assistance under the El Paso County, Texas – Environmental Infrastructure Program (Section 219 of the WRDA) 1992, PL 102-580, as amended). As such, EPWU must adhere to USACE’s Protocol for Environmental Compliance for the proposed project, including adherence to the National Environmental Policy Act (NEPA) and associated federal rules and regulations, including but not limited to, the Endangered Species Act, Migratory Bird Treaty Act, and National Historic Preservation Act (NHPA).

1.2 Purpose and Need

The City of El Paso has experienced an increase in population growth and development over the past several years that has thus increased the demand for safe and reliable public utilities (i.e. drinking water). In order to meet the current and future demands of population growth and development, EPWU wants to expand its current water distribution system to provide a reliable drinking water system to its growing consumer base. The proposed project action would provide safe and reliable drinking water while providing the infrastructure necessary to accommodate future growth and development within the project area, as well as other adjacent areas.

1.3 Regulatory Compliance

This Draft Environmental Assessment (DEA) was prepared in compliance with all applicable federal statutes, regulations, and executive orders, including the following:

- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470)
- Clean Water Act of 1972 and Amendments of 1977 (CWA)
- Clean Air Act of 1972, as amended (42 U.S.C. 7401 *et seq.*)
- Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, 1994
- Executive Order 11988, Floodplain Management
- Flood Disaster Protection Act of 1973
- National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*)
- National Flood Insurance Act of 1968
- Counsel on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500 *et seq.*)
- National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 *et seq.*)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 *et seq.*)
- Executive Order 11593, Protection and Enhancement of the Cultural Environment
- Executive Order 11990, Protection of Wetlands
- Safe Drinking Water Act of 1974
- Executive Order 13112, Invasive Species
- U.S. Army Corps of Engineers' Procedures for Implementing the National Environmental Policy Act (33 CFR 230; ER 200-2-2)
- Farmland Protection Policy Act of 1981, as amended (7 U.S.C. 4201 *et seq.*)
- Noxious Weed Act of 1974 (PL93-269; 7 U.S.C. 2801)

This EA also reflects compliance with all applicable tribal regulations, statutes, policies, and standards for conserving the environment, such as water and air quality, endangered plants and animals, and cultural resources.

2.0 PROPOSED ACTION

The EPWU proposes to install a new 36-inch water transmission main in two phases (Phase I and II). Phase I installation would consist of approximately 12,086 linear feet of a 36-inch water main from the Rio Grande bridge at West Borderland Road to Strahan Road, and from Strahan Road north to Brianna Court. Phase II would include the installation of approximately 3,700 linear feet of a 36-inch water main along Strahan Road from Brianna Court to Canutillo La Union Avenue, and from Canutillo La Union Avenue along Bosque Road to Cayuse Drive. The total length of the proposed project (Phases I and II) is approximately 3.0 miles, with a proposed construction corridor width of 30 feet.

2.1 Alternatives Considered but Eliminated from Analysis

No other alternatives were considered for the proposed project. Materials and construction methods used for the proposed project action are the most current, reliable, and efficient means available.

2.2 No Action Alternative

Under the No-Action alternative, the installation of the water distribution pipelines would not take place. No federal funding would be expended and there would be no new effects to the project site or surrounding environment. However, the No-Action alternative would not support EPWU's efforts to provide efficient service and potable water to meet the demands of the increasing population in the area.

3.0 EXISTING ENVIRONMENT AND FORESEEABLE EFFECTS

The following general summary of the physical environment in the vicinity of Strahan Road in El Paso County, Texas is sufficient for the purposes of analyzing the impacts of the installation of a 36-inch water transmission main.

3.1 Physical Resources

3.1.1 *Physiography, Geology, and Soils*

Physiography

The proposed project area falls within the physiographic Chihuahuan Basin and Range province (USGS, 2015). The Basin and Range geological province consist of portions of the Western U.S. and Northern Mexico that covers parts of Arizona, Texas, New Mexico, Utah, Idaho, Oregon, California, and most of Nevada. Topography in this region is characterized by linear, north and south trending valleys and mountain ranges resulting from an extension of the Earth's crust (USGS, 2012).

Geology

Geological resources include physical surface and subsurface features of the earth, such as geological formations and the seismic activity of the area. The proposed action would not involve any ground disturbing activity outside of the existing right-of-way (ROW) and existing city streets, and would not modify the area's geology. There are no critical geologic resources or sensitive seismic areas located in the vicinity of the proposed project area.

The proposed project area is located within the Quaternary Alluvium (Qal) geological formation consisting of alluvium and low terrace deposits along streams (USGS, 2015). Soils consist of sand, silt, clay, and gravel. The topography of the project area is generally flat and associated with the floodplain areas of the Rio Grande. Man-made alterations to the topography near the project area consist of roads, drainage canals, residential housing, schools, and agriculture production. Nearly the entire landscape located within the project area has been altered by development or agricultural activity. No permanent alteration of the topography of the project area would occur as a result of the proposed project action.

Soils

The proposed project area occurs within the Harkley-Glendale soil association, (USDA-NRCS, 2015). Soils in the project area consist of loamy very fine sand to silty within the Rio Grande floodplains. All of the soils located within the proposed project area have been disturbed by agriculture, road construction, and general grading and leveling of the area to accommodate the construction of residential properties and commercial development. The majority of the Phase I project area is adjacent to actively cultivated

farmland and rangeland pastures, while the Phase II project area is located within residential areas (**Appendix A, Figure 4**). No unique or prime farmland soils are located within the project corridor. Potential soils encountered within the Survey Area were identified using the U.S. Department of Agriculture–Natural Resources Conservation Service (USDA—NRCS) National Cooperative Soil Survey (USDA–NRCS, 2015).

The National Technical Committee for Hydric Soils classifies map units as hydric or non-hydric (USDA–NRCS, 2014). The definition of a hydric soil used by the National Technical Committee for Hydric Soils is “a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.” Given the scale used by the USDA–NRCS to determine a mapping unit, it is expected that there would be areas of non-hydric soils in mapping units otherwise classified as hydric and similar locations of hydric soils in mapping units identified as non-hydric.

Hydric Soils

A review of the National Cooperative Soil Survey (USDA – NRCS, 2015) and national hydric soil list (USDA–NRCS, 2014) indicates that there are six hydric soil map units located within the Survey Area. Descriptions of the hydric soils, as provided by the USDA–NRCS, are provided below (USDA – NRCS, 2015).

Anapra silty clay loam, (Map Unit ID: An): The Anapra silty clay loam soils consist of very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm), well drained soils with moderately high permeability (0.20 to 0.57 in/hr). The parent material consists of Holocene-age fine-silty alluvium over sandy alluvium. These soils are located in floodplains and are not considered prime farmland soils.

Gila fine sandy loam, (Map Unit ID: Ga): The Gila fine sandy loam soils consist of well drained, nonsaline to slightly saline (0.0 to 4.0 mmhos/cm) soils with moderately high to high permeability (0.57 to 1.98 in/hr). The parent material consists of Holocene-age coarse-loamy alluvium. These soils are located in floodplains and are not considered prime farmland soils.

Harkey loam, (Map Unit ID: Ha): The Harkey loam soils consist of well drained, nonsaline to slightly saline (0.0 to 4.0 mmhos/cm) soils with moderately high to high permeability (0.57 to 1.98 in/hr). The parent material consists of Harkey-age coarse-silty alluvium. These soils are located in floodplains and are not considered prime farmland soils.

Harkey silty clay loam, (Map Unit ID: Hk): The Harkey silty clay loam soils consist of well drained, nonsaline to slightly saline (0.0 to 4.0 mmhos/cm) soils with moderately high to high permeability (0.20 to 0.57 in/hr). The parent material consists of Harkey-age coarse-silty alluvium. These soils are located in floodplains and are not considered prime farmland soils.

Saneli silty clay loam, (Map Unit ID: Sa): The Saneli silty clay loam soils consist of moderately well drained, nonsaline to slightly saline (0.0 to 4.0 mmhos/cm) soils with very low to moderately low (0.00 to 0.06 in/hr). The parent material consists of Holocene-age clayey alluvium over sandy alluvium. These soils are located in floodplains and are not considered prime farmland soils.

Saneli silty loam, (Map Unit ID: Sc): The Saneli silty loam soils consist of moderately well drained, very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm) soils with very low to moderately low (0.00 to 0.06 in/hr). The parent material consists of Holocene-age clayey alluvium over sandy alluvium. These soils are located in floodplains and are not considered prime farmland soils.

Non-Hydric Soils

A review of the National Cooperative Soil Survey indicates that there are no non-hydric soil map units located within the Survey Area (USDA–NRCS, 2015).

Soils within the project area will be temporarily and minimally disturbed by trenching during construction. Soils within the project area have been previously impacted during road construction and other development in the area. Excavated material during project construction would be used to backfill the utility line after construction. Disturbed surfaces related to project construction would be revegetated or re-paved following construction. There would be no long-term effect to soils by the proposed project action.

3.1.2 *Climate*

The proposed project area is located in the arid Trans-Pecos climate region (USDA-NRCS, 2015). Average monthly temperatures range from 42 degrees Fahrenheit (F) in January to 82 degrees F in July (NOAA-NWS, 2015). Annual precipitation in the area is approximately 9 inches of rainfall, primarily falling in the summer months, and the majority is from high-intensity thundershowers that results in heavy runoff, erosion, and flooding. Dust storms are prevalent in late winter and spring resulting in soil removal and deposition. Average annual snowfall is about 7 inches, occurring in the winter months. Precipitation and humidity are relatively low in the spring, producing unfavorable conditions for plant growth. As a result, plant species distribution and abundance are limited due to allowing exposed soil surfaces that are heavily impacted by strong winds and heavy rains. The proposed project action or no action alternative would have no effect on climate.

3.1.3 *Water Resources*

Section 401 of the Clean Water Act (CWA) (33 U.S.C. 1251 *et seq.*) as amended, requires that a Water Quality Certification Permit be obtained for anticipated discharges associated with construction activities or other disturbance within waterways. No discharges associated with construction activities or other disturbance within waters or wetlands of the U.S are anticipated. Therefore, Section 401 of the CWA would not apply to the proposed project action or no-action alternative.

Section 402 of the CWA (33 U.S.C. 1251 *et seq.*) as amended, regulates construction discharges of pollutants into waters of the U.S. or a municipal separate storm sewer system (MS4) and specifies that stormwater discharges associated with construction activities shall be conducted under the National Pollution Discharge Elimination System (NPDES) guidance. Construction activities associated with stormwater discharges are characterized by such things as clearing, grading, and excavation, subjecting the underlying soils to erosion by storm-water, which results in a disturbance to one or more acres of land. The Texas Pollutant Discharge Elimination System (TPDES) general permit (TXR150000) guidance would apply to projects causing greater than 1 acre of ground disturbance activity and/or discharge to an MS4. Construction activities associated with the proposed project action would cause

ground disturbance of approximately 10.9 acres. Therefore, a Stormwater Pollution Prevention Plan (SWPPP) is required by the contractor, as well as notification to the MS4 Operator. The SWPPP would include erosion control best management practices (BMPs) that would be utilized during construction and post-construction activities until natural vegetation communities are restored. Based on the utilization of erosion control measures outlined in the SWPPP, the proposed project action impacts from stormwater runoff are expected to be negligible.

Section 404 of the CWA (33 U.S.C. 1251 *et seq.*) as amended, provides for the protection of waters of the U.S. through regulation of the discharge of dredged or fill material. The USACE Regulatory Program (33 CFR Parts 320-330) requires that a Section 404 permit evaluation be conducted for all proposed construction that may affect waters of the U.S. Section 404 of the CWA does not apply to this project, as there would be no discharge of dredged or fill material into waters of the U.S. Pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act, a qualified wetland biologist conducted a survey of wetlands, waterbodies, and other special aquatic sites within the proposed project area in August 2015. No distinct wetlands or wetland plant communities were observed within the proposed project area (**Appendix A, Figure 5**). One potentially jurisdictional stream (agricultural irrigation canal) crosses the proposed project area along Strahan Road and West Borderland Road. Based on current design plans, the proposed project action would bore under the irrigation canal using horizontal directional drilling methods at the two locations where the canal crosses the proposed project area (**Appendix A, Figure 6A**). Erosion control BMPs outlined in the SWPPP would be utilized during construction and post-construction activities to minimize sediment disposition in the irrigation canal. All disturbed areas would be restored to pre-construction contours. Additionally, erosion control measures would remain in place until natural vegetation communities are restored. Based on the current design plans and implementation of erosion control measures utilized during construction and post-construction activities, the proposed project action would not require a Section 404 permit from the USACE.

3.1.4 Floodplains and Wetlands

Floodplains

Pursuant to the National Flood Insurance Act of 1968(42 U.S.C. 4001 *et seq.*) as amended, and the Flood Disaster Protection Act of 1973 (P.L. 93-234, 87 Stat. 975), Executive Order 11988 requires that each federal agency take actions to reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare, and preserve the beneficial values which floodplains serve by evaluating the potential effects of actions within a floodplain and to avoid floodplains unless the agency determines that there is no practicable alternative.

The proposed project areas can be found on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for El Paso County, Texas (Map Panel ID: 4802120125B and 480212025B; FEMA, 1991). The entire proposed project area is classified as Zone X (areas determined outside of the 500-year floodplain) except for the area located south of West Borderland Road and adjacent to the Rio Grande, which is classified as Zone A (areas within the 100-year floodplain). No base flood elevations are determined with Zone A. The hydrology of the proposed project area is illustrated in **Appendix A, Figure 5**. Temporary impacts (i.e. excavation and horizontal directional drilling) occurring as a result of the proposed project action within the 100-year floodplain would be minimized by restoring contours to pre-construction levels upon completion, thereby resulting in no permanent impacts to the existing

topography. Additionally, the proposed project action would not alter any impervious areas within the 100-year floodplain. Therefore, the proposed project or the no-action alternative would not adversely affect existing floodplain areas adjacent to the Rio Grande.

Wetlands

Executive Order 11990, Protection of Wetlands, requires each federal agency to provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the federal agency's responsibilities. During the August 2015 on-site investigation, no distinct wetland plant communities were observed within the proposed project area. In review of the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory data, National Hydrological Data, and publicly available aerial imagery, the nearest wetland areas are located adjacent to the Rio Grande, which is located approximately 0.25 mile east of the proposed project area. All construction activities would take place within the existing road ROW. In order to minimize adverse impacts from stormwater run-off and sediment deposition into nearby wetlands or other aquatic resources, erosion control BMPs would be utilized during construction and post-construction activities until natural vegetation communities are restored. Therefore, the proposed project or the no-action alternative would have no adverse impacts on wetlands.

3.1.5 *Air Quality, Noise, and Aesthetics*

Air Quality

The Clean Air Act (CAA) authorizes the development of comprehensive federal and state regulations to limit emissions from both stationary (industrial) sources and mobile sources. The Environmental Protection Agency (EPA) implements the various requirements included in the CAA including the National Ambient Air Quality Standards (NAAQS). The EPA has established standards for six principle pollutants, also called criteria pollutants. If a geographic area exceeds the limitations of one or more of the pollutants listed in the NAAQS (USEPA, 2015a), it is considered to be a non-attainment area and is subject to the formal rule-making process. The six principle pollutants are listed in **Table 2-1** below.

Table 2-1: National Ambient Air Quality Standards

Pollutants	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm* (10 mg/m ³)	8-hour ⁽¹⁾	None	
	35 ppm (40 mg/m ³)	1-hour ⁽¹⁾		
Lead	0.15 µg/m ³	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m ³	Quarterly Average		
Nitrogen Dioxide	0.053 ppm (100 µg/m ³) ⁽²⁾	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM10)	150 µg/m ³	24-hour ⁽³⁾	Same as Primary	
Particulate Matter (PM2.5)	15.0 µg/m ³	Annual ⁽⁴⁾ (Arithmetic Mean)	Same as Primary	
Sulfur Dioxide	75 ppb ⁽⁴⁾	1-hour ⁽¹⁾	0.5 ppm	3-hour ⁽¹⁾

(1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

(2) The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

(3) Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard (“anti-backsliding”). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.

(4) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO₂ standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

El Paso County is classified as a non-attainment area for particulate matter (PM-10) and carbon monoxide air quality standards (USEPA, 2015b). The PM-10 are small particles (less than 10 micrometers) in the air that originate from internal combustion engines, unpaved roads, fires, and dry exposed soils that are disturbed during construction activities. Carbon monoxide forms when carbon in fuel doesn’t burn completely. The main source of carbon monoxide in the air with the City of El Paso is vehicle emissions (USAEPA, 2015c).

The proposed project action may result in a temporary, but minimal, increase in suspended dust particles from construction activities. During construction, BMPs, including spraying water on disturbed areas within the project corridor, would be utilized in order to minimize the increase in suspended dust particles caused by construction activities associated with the proposed project action. All vehicles involved in transporting spoils from the project site would be covered and would have the required emission control equipment installed. After the proposed project action is completed, there would be no further effects on air quality within the project site and adjacent areas. Therefore, air quality would not be adversely affected by the proposed project action or by the no-action alternative.

Noise

Background noise levels in the proposed project area are relatively low and reflect typical noise levels in a residential area. During construction, noise levels would temporarily increase in the vicinity during working hours with increased vehicle and equipment operations. Noise increases would not be constant during the duration of the proposed project action. Noise increases would likely be present only during working hours. The EPA advises that noise levels above 85 decibels would harm hearing over time and noise levels above 140 decibels can cause damage to hearing after just one exposure (NIH, 2015). However, the increase in noise during construction would be minor, temporary, not constant, and ending

when construction is complete. Therefore, the proposed project action would have no effect on noise within the proposed project area or adjacent areas. Additional information regarding the City of El Paso's Noise Ordinance can be found on the City of El Paso, Texas' official website (City of El Paso, 2015).

Aesthetics

Aesthetically, the project areas are characterized by residential and commercial development (small business and agriculture). The project area receives no recreational use with the intent of viewing scenery. The proposed project action would have a temporary effect on the current aesthetics. During construction, heavy equipment and construction materials would be visible in the work areas. However, after project completion, the area would be returned to pre-construction aesthetics. Long-term aesthetic conditions would not be affected by the proposed project action or the no-action alternative.

3.2 Biological Resources

3.2.1 *Vegetation Communities*

The proposed project areas are all within the Trans-Pecos Ecoregion (Griffith and Omernik, 2009). The Trans-Pecos consists of desert grassland, desert scrub, salt basins, sand hills, and rugged plateaus to wooded mountain slopes that support a large variety of diverse plant and animal life. However, the proposed project is located in highly developed area found within the urban vegetation type as mapped and described by Texas Parks and Wildlife Department (TPWD) (TPWD, 2015a).

An on-site investigation of the proposed project area (Phase I and II) was conducted on August 18, 2015. The proposed project areas are adjacent to commercial and agricultural properties with some residential and commercial properties along West Borderland Road. Vegetation communities adjacent to the proposed project area consist mainly of actively cultivated agricultural fields and livestock rangeland with little vegetation along roadways. The habitat along the ROW consists mostly of bare ground with some herbaceous and shrub vegetation communities located along irrigation canals and roadside drainage ditches. Herbaceous plant communities were dominated by invasive grass species including Bermudagrass (*Cynodon dactylon*), nightshade species (*Solanum spp.*), windmill grass (*Chloris brevispica*), and Johnsongrass (*Sorghum halepense*). Tree and shrub plant communities observed along roadside drainage ditches were dominated by American elm (*Ulmus americana*), black willow (*Salix nigra*), retama (*Poitea paucifolia*), creosote bush (*Larrea tridentata*), and net-leaf hackberry (*Celtis reticulata*).

The Phase II project area consists mainly of residential properties along Bosque Road and commercial properties along Canutillo La Union Avenue with little vegetation along maintained ROWs and residential properties. Vegetation communities along the proposed project area consist mainly of Bermudagrass and silver nightshade along residential and commercial properties adjacent to the roadways. The proposed project area would predominately be located along public roads and within the existing ROWs. Vegetation would not be adversely affected by the proposed project action or the no-action alternative. A complete photographic log of the project areas is located in **Appendix C**.

3.2.2 Noxious Weeds

The Federal Noxious Weed Act of 1974 (Public law 93-269; 7 U.S.C. 2801) provides for the control and eradication of noxious weeds and their regulation in interstate and foreign commerce. Executive Order 13112 directs federal agencies to prevent the introduction of invasive (exotic) species and to control and minimize the economic, ecological, and human health impacts that invasive species cause. “Noxious” in this context means plants not native to an area that may have a negative impact on the economy or environment and are targeted for management or control. Preventing new infestations and eliminating existing infestations is the priority for noxious weeds. BMPs would be utilized to prevent the spread of noxious and invasive species during construction activities, including cleaning all project equipment with a high-pressure water jet before leaving the project area and entering a new area.

3.2.3 Wildlife

The proposed project area is located in the Chihuahuan Basins and Playas component of the Chihuahuan Deserts Ecoregion (Griffith and Omernik, 2009). Within the Chihuahuan Deserts Ecoregion, the mountain ranges are a geologic mix of faulted limestone reefs, volcanoes and associated basalt, rhyolite, and tuff extrusive rocks. Outside the major river drainages, such as the Rio Grande and Pecos River, the landscape is largely internally drained. Vegetative cover is predominantly semi-desert grassland and arid shrubland, except for high elevation islands of oak, juniper, and pinyon pine woodland. The extent of desert shrubland is increasing across lowlands and mountain foothills due to gradual desertification caused in part by historical grazing pressure. The Chihuahuan Basins and Playas region includes alluvial fans, internally drained basins, and river valleys below 3,500 feet. The relatively low elevation basin areas of the region represent the hottest and most arid habitats in Texas, with less than 12 inches of precipitation per year. The playas and basin floors have saline or alkaline soils and areas of salt flats, dunes, and windblown sand. Typical desert shrubs and grasses growing in the region include creosote bush, wand tarbush (*Holocarpha virgate*), fourwing saltbush (*Atriplex canescens*), blackbrush (*Coleogyne ramosissima*), gypsum grama (*Bouteloua*), and alkali sacaton (*Sporobolus airoides*). Land use, particularly grazing, is limited in desert areas due to sparse vegetation and lack of water. Limited areas of agriculture exist where irrigation water is available to produce cultivated crops (Griffith and Omernik, 2009). Numerous species of birds, mammals, lizards, snakes, frogs, toads, as well as one species each of land turtle and salamander occur within the region.

Wildlife species that could frequent this area may include: black-tailed jackrabbit (*Lepus californicus*), three species of kangaroo rat (*Dipodomys* spp.), western kingbird (*Tyrannus verticalis*), Say’s phoebe (*Sayornis saya*), loggerhead shrike (*Lanius ludovicianus*), horned lark (*Eremophila alpestris*), meadow lark (*Sturnella magna*), scaled quail (*Callipepla squamata*), burrowing owl (*Speotyto cunicularia*), yellow box turtle (*Terrapene ornate luteola*), and desert grassland whiptail (*Cnemidophorus uniparens*). In addition, various mammals and reptiles such as mice, rabbits, skunks, and snakes may also transit through the proposed project area.

The proposed construction would occur in areas that have been developed, or in areas where sparse vegetation exists. A biological survey of the proposed project area was conducted on August 18, 2015. Very little wildlife species were observed within the proposed project area. Wildlife observed within the proposed project area consisted mainly of avian bird species. Wildlife displaced during construction would be minimal. Trenches would be inspected every morning and throughout the day to prevent small

animals from being trapped. No adverse impacts to wildlife should occur as a result of the proposed project action or the no-action alternative.

3.2.4 *Special Status Species*

This section assesses the potential for the proposed project to adversely affect any of the listed threatened and endangered (T&E) species considered by USFWS and TPWD as having the potential to occur in El Paso County. The analysis for this section includes a review of TPWD's Texas Natural Diversity Database (TXNDD), including a review of maps and Element Occurrence Records (EOR). Both project areas are highly disturbed and developed areas and are not expected to provide habitat for any special status species.

Special status species that occur in El Paso County and that may occur within or near the proposed project areas are listed below in **Table 2-2** (USFWS, 2015; TPWD, 2015).

Table 2-2: Federally and State-Listed Threatened and Endangered and Special Status Species That Potentially Occur in El Paso County, Texas.

Common Name	Scientific Name	USFWS ¹	TPWD ²	Preferred Habitat	Suitable Habitat in Project Area?
Amphibians					
Northern leopard frog	<i>Rana pipiens</i>	--	S	Streams, ponds, lakes, wet prairies, and other bodies of water; will range into grassy, herbaceous areas some distance from water; eggs laid March-May and tadpoles transform late June-August; may have disappeared from El Paso County due to habitat alteration	No
Birds					
Artic Peregrine falcon	<i>Flaco perginus tundrius</i>	--	S	Low-altitude migrant species throughout Texas. Winters along Texas coast and farther south. Occupies a wide range of habitat including urban areas, coastal and barrier islands. Stopover habitat includes leading edge landscape edges such as lake shores, coastlines, and barrier island.	No
Baird's spar	<i>Ammodramus bairdii</i>	--	S	Shortgrass prairie with scattered low bushes and matted vegetation; mostly migratory in western half of State, though winters in Mexico and just across Rio Grande into Texas from Brewster through Hudspeth counties	No
Ferruginous hawk	<i>Buteo regalis</i>	--	S	Open country, primarily prairies, plains, and badlands; nests in tall trees along streams or on steep slopes, cliff ledges, river-cut banks, hillsides, power line towers; year-round resident in northwestern high plains, wintering elsewhere throughout western two-thirds of Texas	No
Interior least tern	<i>Sterna antillarum athalassos</i>	E	E	Nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc.). No critical habitat designated.	No
Mexican spotted owl	<i>Strix occidentalis lucida</i>	T	T	Remote, shaded canyons of pine and fir mountain woodlands; day roosts in densely vegetated trees, rocky areas, or caves. No critical habitat in this county.	No
Montezuma quail	<i>Cyrtonyx montezumae</i>	--	S	Open pine-oak or juniper-oak with ground cover of bunch grass on flats and slopes of semi-desert mountains and hills; travels in pairs or small groups; eats succulents, acorns, nuts, and weed seeds, as well as various invertebrates	No

Common Name	Scientific Name	USFWS ¹	TPWD ²	Preferred Habitat	Suitable Habitat in Project Area?
Northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	E	E	Open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species. No critical habitat designated.	No
Peregrine falcon	<i>Falco peregrinus</i> (including ssp. <i>anatum</i>)	--	T	Nests in tall cliffs; winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; migration stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No
Prairie falcon	<i>Falco mexicanus</i>	--	S	Open, mountainous areas, plains and prairie; nests on cliffs	No
Snowy plover	<i>Charadrius alexandrinus</i>	--	S	Formerly an uncommon breeder in the Panhandle; potential migrant; winter along coastal areas.	No
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E	E	Thickets of willow, cottonwood, mesquite, and other species along desert streams.	No
Sprague's pipit	<i>Anthus spragueii</i>	--	S	Only in Texas during migration and winter, mid-September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	No
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	--	S	Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows.	No
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	--	S	Uncommon breeder in the Panhandle; potential migrant; winters along coastal areas.	No
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	T	S	Breeds in riparian habitat and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation; deciduous woodlands with cottonwoods and willows; dense understory foliage is important for nest site selection; nests in willow, mesquite, cottonwood, and hackberry; forages in similar riparian woodlands.	No
Fishes					
Bluntnose shiner	<i>Notropis simus simus</i>	--	T	Main river channel of the Rio Grande, often below obstructions over substrate of sand, gravel, and silt. Presumed extinct.	No

Common Name	Scientific Name	USFWS ¹	TPWD ²	Preferred Habitat	Suitable Habitat in Project Area?
Rio Grande silvery minnow	<i>Hybognathus amarus</i>	--	E	Occurred historically in the Rio Grande and Pecos River systems and canals; reintroduced in Big Bend area; prefers pools and backwaters of medium to large streams with low or moderate gradient in mud, sand, or gravel bottom. No critical habitat has been designated in this county. Presumed extirpated.	No
Insects					
A royal moth	<i>Sphingicampa raspa</i>	--	S	Woodland – hardwood; with oaks, junipers, legumes and other woody trees and shrubs; good density of legume caterpillar foodplants must be present; Prairie acacia (<i>Acacia angustissima</i>) is the documented caterpillar foodplant, but there could be a few other woody legumes used.	No
A tiger beetle	<i>Cicindela hornii</i>	--	S	Grassland/herbaceous; burrowing in or using soil; dry areas on hillside or mesas where soil is rocky or loamy and covered with grasses, invertivore; diurnal, hibernates/aestivates, active mostly for several days after heavy rains; the life cycle probably takes two years so larvae would always be present in burrows in the soil.	No
Barbara Ann's tiger beetle	<i>Cicindela politula barbarannae</i>	--	S	Limestone outcrops in arid treeless environments or in openings within less arid pine-juniper-oak communities; open limestone substrate itself is almost certainly an essential feature; roads and trails.	No
Poling's hairstreak	<i>Fixsenia polingi</i>	--	S	Oak woodland with <i>Quercus grisea</i> as substantial component, probably also uses <i>Q. emoryi</i> ; larvae feed on new growth of <i>Q. grisea</i> , adults utilize nectar from a variety of flowers including milkweed and catclaw acacia; adults fly mid-May - June, again mid August - early September	No
Mammals					
Big free-tailed bat	<i>Nyctinomops macrotis</i>	--	S	Prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore	No
Black bear	<i>Ursus americanus</i>	--	T	Bottomland hardwoods and large tracts of inaccessible forested areas.	No
Black-footed ferret	<i>Mustela nigripes</i>	--	S	Extirpated; inhabited prairie dog towns in the general area	No

Common Name	Scientific Name	USFWS ¹	TPWD ²	Preferred Habitat	Suitable Habitat in Project Area?
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	--	S	Dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle; live in large family groups	No
Cave myotis bat	<i>Myotis velifer</i>	--	S	Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore	No
Desert pocket gopher	<i>Geomys arenarius</i>	--	S	Cottonwood-willow association along the Rio Grande in El Paso and Hudspeth counties; live underground, but build large and conspicuous mounds; life history not well documented, but presumed to eat mostly vegetation, be active year round, and bear more than one litter per year.	No
Gray wolf	<i>Canis lupus</i>	--	E	Extirpated. Forests, brushlands, or grasslands throughout the western two-thirds of the state.	No
Long-legged bat	<i>Myotis volans</i>	--	S	In Texas, Trans-Pecos region; high, open woods and mountainous terrain; nursery colonies (which may contain several hundred individuals) form in summer in buildings, crevices, and hollow trees; apparently do not use caves as day roosts.	No
Pale Townsend's big-eared bat	<i>Corynorhinus townsendii pallescens</i>	--	S	Roosts in caves, abandoned mine tunnels, and occasionally old buildings; hibernates in groups during winter; in summer months, males and females separate into solitary roosts and maternity colonies, respectively; opportunistic insectivore.	No
Pecos River muskrat	<i>Ondatra zibethicus ripensis</i>	--	S	Creeks, rivers, lakes, drainage ditches, and canals; prefer shallow, fresh water with clumps of marshy vegetation, such as cattails, bulrushes, and sedges; live in dome-shaped lodges constructed of vegetation; diet is mainly vegetation.	Yes
Western red bat	<i>Lasiurus blossevillii</i>	--	S	Roosts in tree foliage in riparian areas, also inhabits xeric thorn scrub and pine-oak forests; likely winter migrant to Mexico; multiple pups born mid-May - late June	No

Common Name	Scientific Name	USFWS ¹	TPWD ²	Preferred Habitat	Suitable Habitat in Project Area?
Western small-footed bat	<i>Myotis ciliolabrum</i>	--	S	Mountainous regions of the Trans-Pecos, usually in wooded areas, also found in grassland and desert scrub habitats; roosts beneath slabs of rock, behind loose tree bark, and in buildings; maternity colonies often small and located in abandoned houses, barns, and other similar structures; apparently occurs in Texas only during spring and summer months; insectivorous	No
Mollusks					
Franklin Mountain talus snail	<i>Sonorella metcalfi</i>	--	S	Terrestrial; bare rock, talus, scree; inhabits igneous talus most commonly of rhyolitic origin	No
Franklin Mountain wood snail	<i>Ashmunella pasonis</i>	--	S	Terrestrial; bare rock, talus, scree; talus slopes, usually of limestone, but also of rhyolite, sandstone, and siltstone, in arid mountain ranges	No
Reptiles					
Big Bend slider	<i>Trachemys gaigeae</i>	--	S	Almost exclusively aquatic, sliders (<i>Trachemys</i> spp.) prefer quiet bodies of fresh water with muddy bottoms and abundant aquatic vegetation, which is their main food source; will bask on logs, rocks or banks of water bodies; breeding March-July	No
Chihuahuan Desert lyre snake	<i>Trimorphodon vilkinsonii</i>	--	T	Crevices in limestone-surfaced jumbled boulders and rock faults/fissures in desert areas northwest from Big Bend to the Franklin Mountains.	No
Mountain short-horned lizard	<i>Phrynosoma hernandesi</i>	--	T	Open, shrubby, or openly wooded areas with sparse vegetation at ground level; soil may vary from rocky to sandy to allow for burrowing.	No
New Mexico garter snake	<i>Thamnophis sirtalis dorsalis</i>	--	S	Nearly any type of wet or moist habitat; irrigation ditches, and riparian-corridor farmlands, less often in running water; home range about 2 acres.	Yes
Texas horned lizard	<i>Phrynosoma cornutum</i>	--	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 to allow for burrowing.	No

Common Name	Scientific Name	USFWS ¹	TPWD ²	Preferred Habitat	Suitable Habitat in Project Area?
Plants					
Comal snakewood	<i>Colubrina stricta</i>	--	S	In El Paso County, found in a patch of thorny shrubs in colluvial deposits and sandy soils at the base of an igneous rock outcrop; the historic Comal County record does not describe the habitat; in Mexico, found in shrublands on calcareous, gravelly, clay soils with woody associates.	No
Desert night-blooming cereus	<i>Peniocereus greggii</i> var. <i>greggii</i>	--	S	Chihuahuan Desert shrublands or shrub invaded grasslands in alluvial or gravelly soils at lower elevations along slopes, benches, arroyos, flats, and washes.	No
Hueco rock daisy	<i>Perityle huecoensis</i>	--	S	North-facing or otherwise mostly shaded limestone cliff faces within relatively mesic canyon system.	No
Sand prickly-pear	<i>Opuntia arenaria</i>	--	S	Deep, loose or semi-stabilized sands in sparsely vegetated dune or sandhill areas, or sandy floodplains in arroyos.	No
Sand sacahuista	<i>Nolina arenicola</i>	--	S	Texas endemic; mesquite-sand sage shrublands on windblown Quaternary reddish sand in dune areas.	No
Sneed pincushion cactus	<i>Coryphantha sneedii</i> var. <i>sneedii</i>	E	E	Xeric limestone outcrops on rocky, usually steep slopes in desert mountains, in the Chihuahuan Desert.	No
Texas false saltgrass	<i>Allolepis texana</i>	--	S	Sandy to silty soils of valley bottoms and river floodplains, not generally on alkaline or saline sites; flowering (May-) July-October depending on rainfall.	Yes
Vasey's bitterweed	<i>Hymenoxys vaseyi</i>		S	Occurs on xeric limestone cliffs and slopes at mid- to high elevations in desert shrublands.	No
Wheeler's spurge	<i>Chamaesyce geyeri</i> var. <i>wheeleriana</i>	--	S	Sparsely vegetated, loose eolian quartz sand on reddish sand dunes or coppice mounds; flowering and fruiting at least August-September, probably earlier and later, as well.	No

1. E = Endangered; T = Threatened; Source: USFWS (2015)

2. E = Endangered; T = Threatened; S = Species of Greatest Conservation Need; Source: TPWD (2015)

Federally Listed Species

There are six (6) federally listed T&E species that have the potential to occur within the proposed project area (USFWS, 2015). Two (2) additional T&E species, piping plover and red knot, also have the potential to occur within the proposed project area; however, the potential effects on the piping plover and red knot are only analyzed for wind energy projects (USFWS, 2015). The TXNDD review did identify EORs for the Sneed's pincushion cactus (*Coryphantha sneedii*) within 10 miles of the proposed project area (**Appendix E**). Most of the EORs for the Sneed's pincushion cactus were located within the Franklin Mountains. During the August 2015 on-site investigation, no suitable habitat for any federally listed species was observed within the proposed project area. Given the high level of disturbance observed within the proposed project area and lack of suitable habitat for the Sneed's pincushion cactus, the proposed project action or no action alternative would have "No Effect" on the Sneed's pincushion cactus or any federally listed T&E species that may occur within the proposed project area.

State-Listed Species

There are 14 state-listed T&E species that have the potential to occur within the proposed project area. During the August 2015 on-site investigation, no suitable habitat for any state-listed T&E species was observed within the proposed project area. Therefore, the proposed project action or no action alternative would have "No Impact" on any state-listed T&E species that may occur within the proposed project area.

Species of Greatest Conservation Need

There are 37 species listed as species of greatest conservation need (SGCN) by TPWD (TPWD, 2015). During the August 2015 on-site investigation, suitable habitat for New Mexico garter snake (*Thamnophis sirtalis dorsalis*), Pecos River muskrat (*Ondatra zibethicus ripensis*), and Texas false saltgrass (*Allolepis texana*) was observed within the proposed project area.

Suitable habitat for the New Mexico River garter snake and the Pecos River muskrat was observed along irrigation canals and roadside drainage ditches located along Strahan Road and West Borderland Road. It is assumed that the New Mexico garter snake and Pecos River muskrat would move to adjacent suitable habitat if disturbed by the proposed project action. Therefore, the proposed project action and no action alternative would not adversely impact the New Mexico River garter snake or the Pecos River muskrat.

The proposed project corridor is located in a river valley area adjacent to the Rio Grande, which would be considered suitable habitat for the Texas false saltgrass. However, the proposed project areas are highly disturbed by residential and commercial development. Records from the TXNDD request from TPWD showed one (1) EOR of the Texas false saltgrass. Three occurrences of Texas false saltgrass were reported approximately 6 miles southeast of the proposed project area. No specimens of Texas false saltgrass were observed during the August 2015 on-site investigation. Given the high level of vegetation disturbance from residential and commercial development and actively cultivated agricultural fields located within and adjacent to the proposed project area, the proposed project action would not impact the Texas false saltgrass.

3.3 Cultural Resources

Archeological Resources

On behalf of EPWU, TRC archeologists conducted a preliminary cultural resources site-file search on July 30, 2015 and a detailed site-file search on August 17, 2015 by using the electronic Texas Archeological Sites Atlas (Atlas) maintained by the Texas Historical Commission (THC). This site-file search was conducted to determine if any cultural resources properties had been previously documented in the area of potential effect (APE) and within the 1.0-mile radius surrounding the proposed project area. Based on the location of the proposed project area, expectations for intact and significant cultural resources within the APE were extremely low. The entire project area is within the National Register of Historic Places (NRHP) listed Elephant Butte Irrigation District. No other previously recorded cultural properties are located within the APE. Within the district is the Canutillo Lateral, which does not have a state-assigned trinomial. The Canutillo Lateral bisects the project area in two places and has existing damage; however, boring under the lateral (5 feet below the surface) would not further affect it. Because the entire installation would be placed under the existing paved road or within the existing ROW, the potential for intact and significant cultural properties is extremely low. TRC did not recommend a pedestrian survey based on the location of the proposed project. The THC concurred with a “no effect” determination in response to a letter sent directly to the THC by TRC on behalf of EPWU dated September 15, 2015 (**Appendix D**).

Any project receiving Federal funding or other participation by a Federal agency must comply Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. §300101). Section 106 requires Federal agencies to make determinations of effect on historic properties and to consult with the State Historic Preservation Office (in Texas, the THC) and with Native American tribes with interests in this area on those determinations. Based on TRC’s recommendations referenced in the above paragraph, the Corps determines that this project would have no adverse effect to historic properties, and is in the process of consulting with THC on that determination. In addition, Native American tribes with interests in El Paso County have been sent scoping letters. To date, no tribes have expressed concerns about the project.

Should previously undiscovered artifacts or features be discovered during construction, work would stop in the immediate vicinity of the find, a determination of significance made, and consultation would take place with the THC and Native American groups that may have concerns in the project area, to determine the best course of action.

Historical Resources

Valenzuela Preservation Studio, LLC (VPS) completed a Historic Resources Survey Report, in compliance with the NHPA, for all historic-age resources located within the APE (**Appendix D**). Background reviews completed using the Texas State Historic Preservation Office (SHPO) Sites Atlas and the NRHP database provided the framework for identifying previously designated historic properties. Previously designated properties within the quarter-mile project study area included one NRHP-listed historic district, the Elephant Butte Irrigation District.

Based on additional archival research and field survey efforts, 18 historic-age resources were identified within the APE. Of the 18 identified resources, all are located within the boundaries of the NRHP-listed Elephant Butte Irrigation District. Of those, 13 historic-age resources are directly related to the irrigation

district, but are considered minor localized features according to the 1997 National Register nomination. One resource within the APE is specifically listed as a contributing element to the Elephant Butte Irrigation District, Resource ID No. 1 – Canutillo Lateral.

Since the proposed water main installation would involve ground disturbing activities, there is a potential to impact historic properties. However, at locations of Resource ID No. 1 – Canutillo Lateral, project schematics indicated the pipeline would be installed by jack and bore – a method of horizontal boring that would not disturb the surface between drilling points on either side of the lateral. The 36-inch pipeline replaces an abandoned pipeline of the same dimension below the existing roadways. Construction activities undertaken during the installation of the pipeline would be conducted within existing ROW and should minimize impact to features of the irrigation systems adjacent to Strahan Road. Therefore, VPS concluded that the proposed project did not represent a direct impact to historic properties within the project APE. In addition, since the proposed water main installation would be constructed underground along Borderland, Strahan, and Bosque Roads near Canutillo and no features of the water main would be located above ground, the project did not represent a visual impact to historic properties within the project APE.

3.4 Human Health and Safety

Under Section 219 of the WRDA, the proposed project action qualifies for environmental assistance in the form of design and construction assistance for water supply, storage, treatment, and distribution systems. The proposed project action would have relatively little short-term health and safety impacts (dust from construction activities) during construction. The local community would benefit from the proposed project action due to the installation and upgraded potable water distribution system, which would result in an increase in safe drinking water and enhancing human health. In addition, the project would meet the demands of future population increases. Therefore, the proposed project action would provide long-term benefits to human health and safety by providing a safe and reliable drinking water supply to the area.

3.5 Land Use and Socioeconomic Considerations

The City of El Paso is located in El Paso County, Texas. The total population of the City of El Paso in 2014 was 679,036 with El Paso County having an estimated population of 833,487 (U.S. Census Bureau, 2014). The racial background for El Paso County is 92.1 percent white (including Hispanic American), 4.0 percent black or African American, 1.0 percent American Indian and Alaska Native, 1.3 percent Asian, 0.2 percent Native Hawaiian and Other Pacific Islander, and 2.1 percent are multi-racial. Of these, 81.2 percent of the El Paso County population is of Hispanic or Latino origin (of any race).

In 2014, the per capita personal income in El Paso County was \$31,156 compared to \$45,426 for the state of Texas (U.S. Census Bureau, 2014). The August 2015 unemployment rate for El Paso County was 5.2 percent (U. S. Bureau of Labor Statistics, 2015). The proposed project would take place within residential and agriculture areas that have been previously disturbed by road construction. The proposed project corridor would be located entirely within existing easements of roadways and other utility lines owned or leased by the City of El Paso. The proposed project action will collocate with other utility lines. The proposed project would not adversely affect land use or socioeconomic resources within the proposed project area or areas located adjacent to the proposed project area. The proposed project action would support local short-term construction jobs.

3.6 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), requires federal agencies to achieve environmental justice “to the greatest extent practicable” by identifying and addressing “disproportionately high adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.”

A minority population is typically defined as a local population with 50 percent or greater minority make-up, or a local population with a significantly larger minority make-up than in the surrounding reference area. An area with a poverty rate (percentage of persons with incomes below the poverty threshold, which is based on family size) of over 20 percent is considered a “poverty area” by the U.S. Census.

Based on information from the 2013 Census, El Paso County’s minority population is 85.3 percent of the total population, and 23.3 percent of the El Paso County residents have incomes below the poverty level (U.S Census Bureau, 2013). The proposed project action would be conducted under Section 219 of the WRDA and the Safe Drinking Water Act of 1974. This program is largely intended to provide needed assistance (design, construction, etc.) to communities in which water-related environmental infrastructure are in need of improvement. As such, the proposed project action would benefit several areas within a minority and low-income community. Under the definition of Executive Order 12898, there would be no adverse environmental justice impacts by the proposed project action or the no-action alternative.

3.7 Cumulative Impacts

As defined in 40 Code of Federal Regulations (CFR) 1508.7 (Counsel on Environmental Quality [CEQ] Regulations), a cumulative effect is the “Impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.”

The footprint of the proposed project action is located within previously disturbed areas (existing roadside ROW) to install potable water lines to meet the increasing demands of the growing population within the City of El Paso. The project action would facilitate additional development within the surrounding area. Contingent upon zoning regulations, the proposed project action would allow for new residential housing and commercial development. Future water line repairs would be made on an as needed basis and be dependent upon failure or structural integrity. There are no future plans for system upgrades. For these reasons, the proposed project action when combined with past, present, and future activities within the City of El Paso would not significantly add to or raise local cumulative environmental impacts to a level of significance.

4.0 CONCLUSION AND SUMMARY

4.1 Conclusions

The proposed project action evaluated in this EA addresses the potential effects of the installation of a 36-inch water transmission main. The analysis indicates that the proposed project action would serve a local need for improved water distribution services. The proposed project action would not result in any moderate or significant, short-term, long-term, or cumulative adverse effects. Therefore, construction of

the proposed project would not significantly affect the quality of the human environment and is recommended for implementation.

5.0 PREPARATION, CONSULTATION AND COORDINATION

5.1 Preparation

This EA was prepared by TRC Environmental Corporation (TRC) with contributions from Valenzuela Preservation Studio, LLC on behalf of El Paso Water Utilities. Personnel primarily responsible for preparation include:

David Najvar	Project Manager/Environmental Scientist • TRC • Austin, Texas
Troy Olney	Assistant Project Manager/Senior Biologist • TRC • Austin, Texas
Todd Schnakenberg	Biologist/Wetlands Specialist • TRC • Austin, Texas
Elia Perez	Project Manager/Archeologist • TRC • El Paso, Texas
Elizabeth Valenzuela	Principal/Historian • Valenzuela Preservation Studio • Austin, Texas

5.2 Quality Assurance

This EA has been reviewed for quality assurance purposes by the following personnel:

Michael Martinez	Project Manager • USACE – Albuquerque District
Julie Alcon	Chief, Environmental Resources • USACE – Albuquerque District
Robert Grimes	<i>Title</i> • USACE – Albuquerque District
Michael Porter	Biologist • USACE – Albuquerque District
Jerry Nieto	<i>Title</i> • USACE – Albuquerque District
Jonathan Van Hoose	Archeologist • USACE – Albuquerque District

5.3 Consultation and Coordination

Agencies and entities contacted formally or informally in preparation of this EA include:

- U.S. Fish and Wildlife Service
- International Boundary and Water Commission
- Bureau of Reclamation
- Texas Parks and Wildlife Department
- Texas Historical Commission

5.4 Distribution List for Draft Environmental Assessment

Property owners within 50 feet of the construction centerline will receive Notice of Availability (NOA) of the Draft EA (DEA). In addition, the DEA will be submitted to state and federal cooperating agencies, and a copy of the DEA will be provided to the local library for public review.

(Mailing List to be Provided)

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APPENDIX A

FIGURES

APPENDIX B
PROJECT DESIGN PLANS

APPENDIX C
PHOTOGRAPHIC LOG

APPENDIX D

MEMORANDUMS OF COORDINATION AND TRIBAL CONSULTATION

APPENDIX E

TPWD TXNDD ELEMENTAL OCCURRENCE RECORDS