



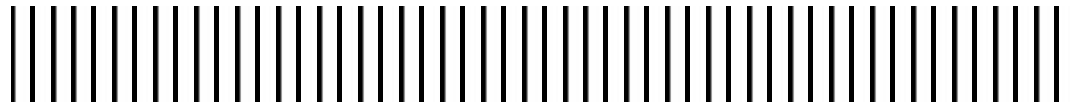
## El Paso Water Utilities

1154 Hawkins Blvd. • El Paso, TX 79961-0001

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# El Paso Water Utility Upgrade Phase 8, 9 & 10 Environmental Assessment

June 2010



Report Prepared By:

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**MALCOLM  
PIRNIE**

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**Finding of No Significant Impact**

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## Acronyms Used in the Report

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CAA	Clean Air Act
CEQ	Commission on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
EA	Environmental Assessment
EO	Executive Order
EOR	Element of Occurrence Record
EPA	Environmental Protection Agency
EPWU	El Paso Water Utilities
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
F	Fahrenheit
NAAQS	National Ambient Air Quality Standards
NDD	Natural Diversity Database
NEPA	National Environmental Policy Act
NPDES	National Pollution Discharge Elimination System
PM	Particulate Matter
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
THC	Texas Historical Commission
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service



**US Army Corps  
of Engineers®**  
Albuquerque District

**Finding of No Significant Impact**  
**Section 219 Water Resources Development Act**  
**El Paso Water Utility Upgrade**  
**Phase 8, 9, 10**  
**El Paso, Texas**

The U.S. Army Corps of Engineers (Corps), Albuquerque District, in coordination with and at the request of the El Paso Water Utility (EPWU), is planning a project to replace and rehabilitate existing water distribution lines and appurtenances within Grandview (Phase 8), Morningside Heights (Phase 9) and Mountain View (Phase 10) Subdivisions in El Paso, 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 the Corps 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 2011.

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. This project seeks to resolve recurrent line breaks on old 2”- 6” cast iron pipes within the Project Areas. These projects would replace approximately 18,191 lineal feet of water lines, replace 14 fire hydrants, replace 181 water service connections and replace sanitary sewer with steel and casing where required within Grandview Subdivision; replace approximately 8,300 lineal feet of water lines and approximately 240 water service connectors in the Morningside Heights Subdivision; and replace approximately 7,600 lineal feet of water lines and approximately 225 water service connectors in the Mountain View Subdivision. Improvements would include updating of valves, fittings and appurtenances. Replacing these water and sewer 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.

GTI Environmental, Inc. and Malcolm Pirnie conducted background reviews for this project (see Appendix B). According to the Texas Historical Commission's (THC) Atlas database, the Phase 8, Phase 9, and Phase 10 project areas have been surveyed previously for cultural resources, and no archaeological sites or other historic properties were identified within the project areas. Because previous surveys did not identify any historic properties, and because the project would be limited to buried water lines within existing, previously-disturbed construction trenches and curb, sidewalk, and pavement replacement at ground level, GTI and Malcolm Pirnie concluded that the project would have "no effect" to historic properties eligible for listing on the National Register of Historic Places or worthy of designation as State Archaeological Landmarks. The Corps concurs with GTI Environmental's recommendations. THC concurred with a "no effect" determination in response to two letters prepared by GTI Environmental and Malcolm Pirnie (see Appendix B).

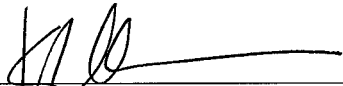
Only short-term negligible adverse impacts to soils, air, noise, aesthetics, and vegetation would occur during construction. No impacts would occur to land use, climate, soils (long-term), air (long-term), wetlands or other waters of the U.S., wildlife, floodplains, special status species, or cultural 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 planned action has been fully coordinated with federal, state, tribal, and local agencies with jurisdiction over the biological, ecological, cultural, and hydrological resources of the project area. Based upon these factors and others discussed in detail in the Final Environmental Assessment, the planned action would not have a significant effect on the human environment. Therefore, an Environment Impact Statement will not be prepared for the proposed replacement and rehabilitation of El Paso water distribution and sewer collection system.

7/7/10  
Date

  
\_\_\_\_\_  
Kimberly M. Colloton  
Lieutenant Colonel, U.S. Army  
District Commander

# 1. Introduction

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## 1.1. Background and Location

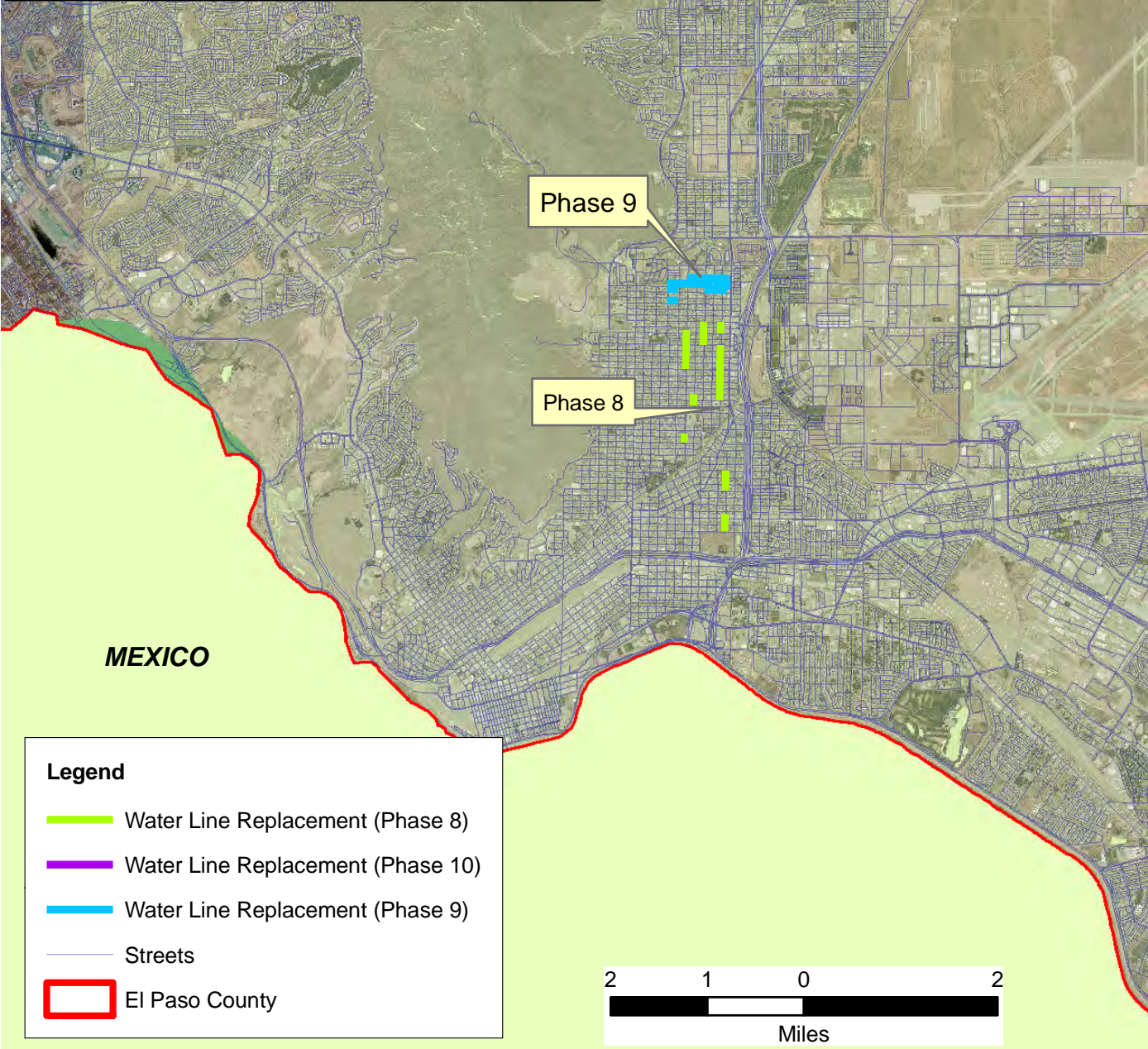
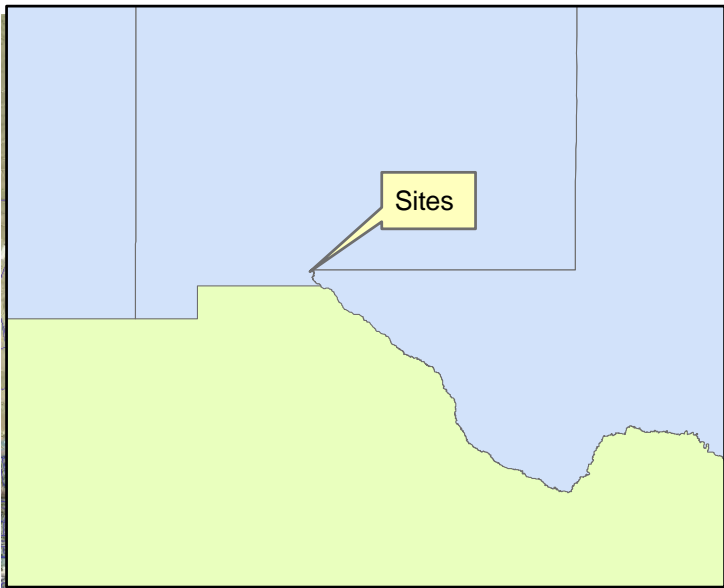
The El Paso Water Utilities (EPWU) in cooperation with the U.S. Army Corps of Engineers (Corps), Albuquerque District is planning to replace and rehabilitate existing water distribution lines, sanitary sewer, and appurtenances within the Grandview, Morningside Heights and Mountain View Subdivisions in El Paso, Texas (See Figure 1-1). The duration of the proposed construction would be approximately one year beginning in early 2011.

The rehabilitation work would be conducted under Section 219 of the Water Resources Development Act (WRDA) of 1992 and as amended in 2007. The Act authorizes the Corps to provide assistance in the form of design and construction for environmental infrastructure, resource protection, and development projects. Provisions under the Act require that the project be publicly owned to receive Federal assistance. As such, the non-Federal project sponsor is EPWU. The Act further requires that the 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 costs.

## 1.2. Purpose and Need

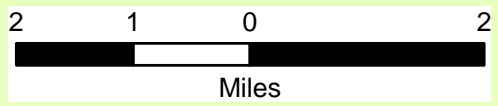
EPWU has a program to upgrade antiquated water lines within the water distribution pipeline infrastructure in order to prevent and alleviate line breaks in the system across the entire EPWU service area. This Project seeks to resolve recurrent line breaks on old 2"- 6" cast iron pipes within the Project areas which result in interrupted service and wasteful discharge of potable water. The Projects would replace approximately 18,191 lineal feet of water lines, replace 14 fire hydrants, replace 181 water service connections and replace sanitary sewer with steel and casing where required within the Grandview Subdivision; replace approximately 8,300 lineal feet of water lines and approximately 240 water service connectors in the Morningside Heights Subdivision and replace approximately 7,600 lineal feet of water lines and approximately 225 water service connectors in the Mountain View Subdivision. Improvements would include updating of valves, fittings and appurtenances. Replacing these water lines and associated sanitary sewer would reduce environmental hazards and potential property damages and provide approximately 1,000 residents with a safe and reliable service.

Project activity would be confined to the original water distribution and sanitary sewer system footprint. No new infrastructure networks would be added to the distribution and collection system.



**Legend**

- Water Line Replacement (Phase 8)
- Water Line Replacement (Phase 10)
- Water Line Replacement (Phase 9)
- Streets
- El Paso County



El Paso Water Utilities  
Annual Rehabilitation Project

Planned Water Line Replacement  
Phase 8, Phase 9,  
and Phase 10

MALCOLM PIRNIE, INC.  
Vicinity Map  
Figure 1-1



### 1.3. Regulatory Compliance

This Environmental Assessment (EA) 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, (ESA) as amended (16 U.S.C. 1531 *et seq.*)
- Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, 1994
- Floodplain Management (EO 11988)
- Flood Disaster Protection Act of 1973
- National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C 4321 *et seq.*)
- National Flood Insurance Act of 1968
- CEQ Regulations for Implementing the Procedural Provisions of NEPA (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.*)
- Protection and Enhancement of the Cultural Environment (Executive Order 11593)
- Protection of Wetlands (EO 11990)
- Safe Drinking Water Act of 1974
- U.S. Army Corps of Engineers' Procedures for Implementing NEPA (33 CFR 230; ER 200-2-2)
- Farmland Protection Policy Act of 1981, as amended (7 U.S.C. 4201 *et seq.*)
- EO 13112, Invasive Species
- 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. Proposed Actions and Alternatives

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### 2.1. Proposed Action

This Project proposes to replace a total of 34,091 lineal feet of water distribution pipeline infrastructure and 646 water service connectors in three different neighborhoods in El Paso, TX, Grandview, Morningside Heights and Mountain View. The replacement of the water distribution pipeline infrastructure would prevent and alleviate line breaks in the system across the entire EPWU service area. The three Projects are referred to as Phase 8, Phase 9 and Phase 10, respectively. The lines would be replaced by open trenching method within the existing public right-of-way (street). Staging areas on public property would be located within the neighborhood as seen in Section 5 figures of this assessment. Replaced pipe would be recycled or disposed of in an approved landfill. The total cost of construction is estimated at \$1,915,000, \$905,100 and \$848,200, respectively.

#### **Phase 8**

This Project seeks to resolve recurrent line breaks on old 2”- 6” cast iron pipes within the Grandview Subdivision. The Project would replace damaged pipe with approximately 6,218 linear feet of 6-inch Polyvinyl Chloride (PVC) water main (Class 235); 1,873 linear feet of 6-inch Polyvinyl Chloride (PVC) water main (Class 305); 6,500 linear feet of 8-inch Polyvinyl Chloride (PVC) water main (Class 235); 3,600 linear feet of 12-inch Polyvinyl Chloride (PVC) water main (Class 235); removal and salvage of 14 existing fire hydrant assemblies; installation of 14 new fire hydrant assemblies; 181 water service reconnections; steel casing; curb, sidewalk, and pavement replacement, replacement of sanitary sewer with steel and casing where required, and all miscellaneous piping, valve, fittings, and appurtenances and other site work necessary for the proper installation (See Figure 2-1).

#### **Phase 9**

This Project seeks to resolve recurrent line breaks on old 2”- 6” cast iron pipes within the Morningside Heights Subdivision. This Project would replace approximately 8,300 lineal feet of water lines and approximately 240 water service connectors. Improvements would include updating of valves, fittings and appurtenances (see Figure 2-2). New pipe material would be based on the site conditions and would be of reinforced concrete pipe (RCP), ductile iron pipe (DIP), Centrifugally Cast Fiberglass Reinforced Polymer Mortar Pipe, polyvinyl chloride (PVC), or high-density polyethylene (HDPE).

## **Phase 10**

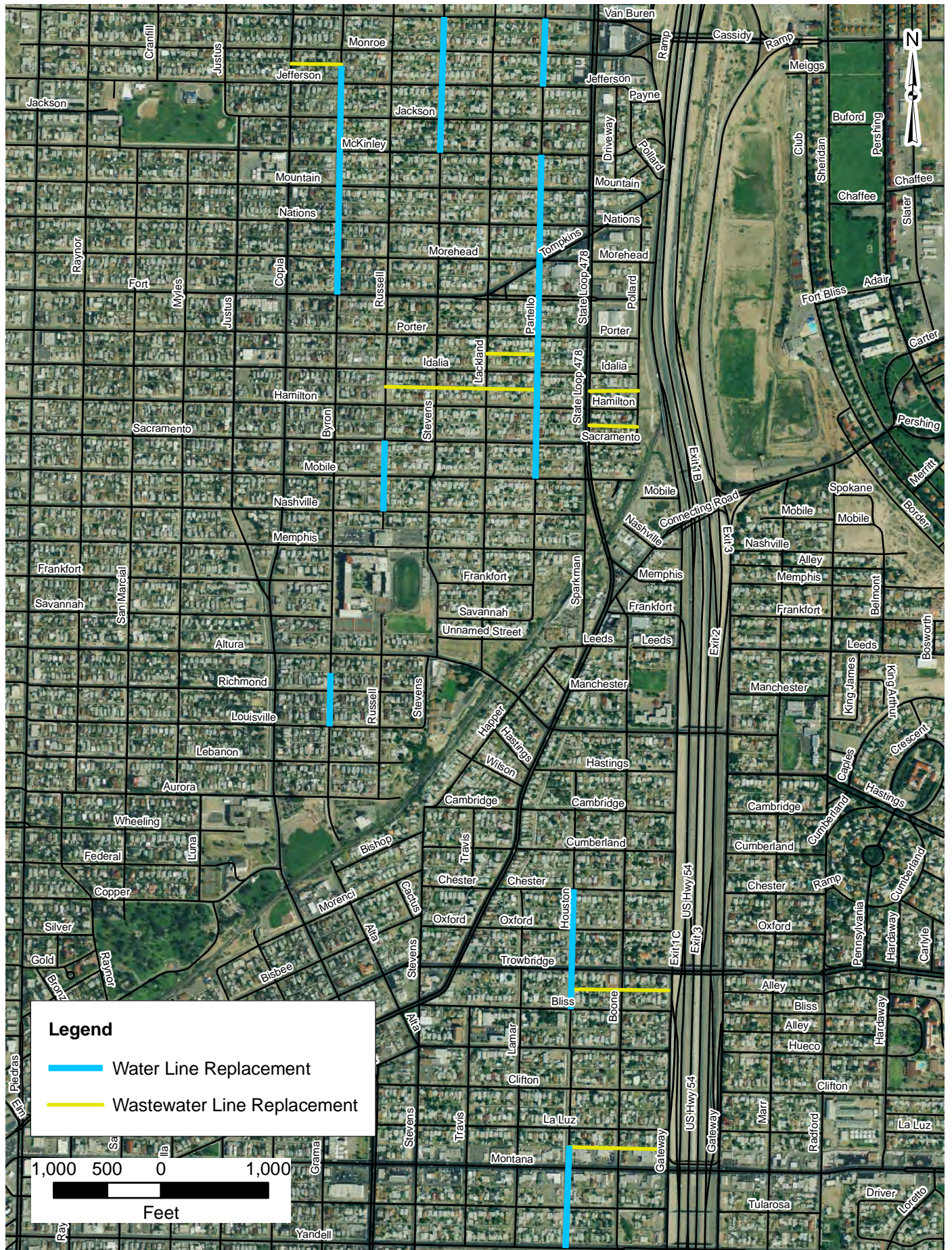
This Project seeks to resolve recurrent line breaks on old 4” and 6” cast iron pipes within the Mountain View Subdivision. This Project would replace approximately 7,600 lineal feet of water lines and approximately 225 water service connectors. Improvements would include updating of valves, fittings and appurtenances (see Figure 2-3). New pipe material would be based on the site conditions and would be of reinforced concrete pipe (RCP), ductile iron pipe (DIP), Centrifugally Cast Fiberglass Reinforced Polymer Mortar Pipe, polyvinyl chloride (PVC), or high-density polyethylene (HDPE).

### **2.2. Alternatives Considered but Eliminated from Analysis**

No other alternatives were considered for these projects. The failing pipe is site specific and requires site specific replacement. Replacing the entire pipeline system with each neighborhood would not be cost effective, would increase construction time, exhibit high cost for road repair, and would have a greater cumulative effect upon natural and socioeconomic resources. Materials and construction methods used for the proposed projects are the most current, reliable, and efficient means available.

### **2.3. The No-Action Alternative**

Under the No-Action alternative, replacement of the water distribution pipelines and water service connectors 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 the City of El Paso’s effort to provide efficient service and protect groundwater quality. Recurrent line breaks would continue resulting in loss of potable water, loss of service to customers, and result in health and safety hazards if wastewater discharge reached local populations through surface seepage or back-up within residences’.





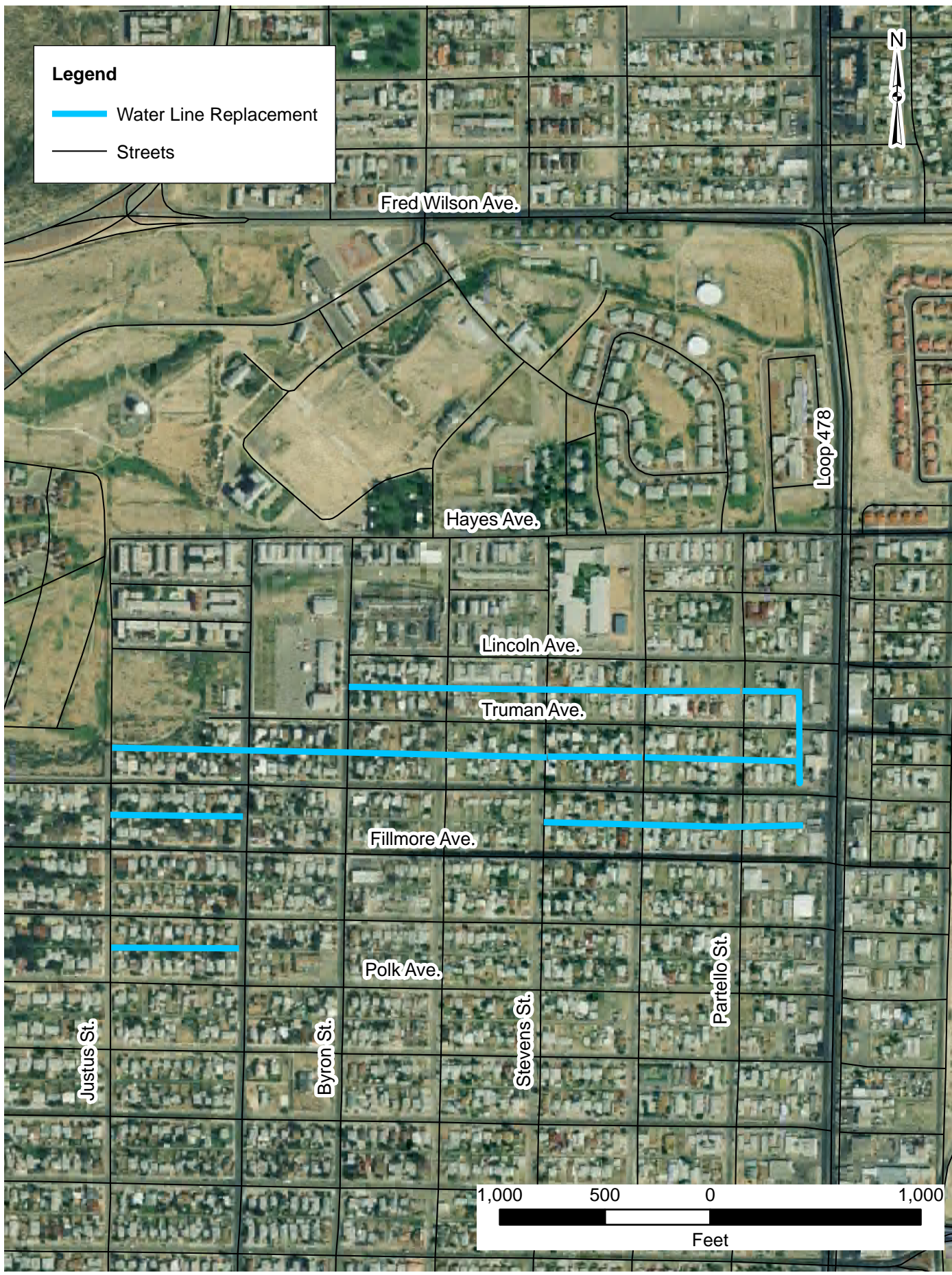
El Paso Water Utilities  
Annual Rehabilitation Project

Mountain View  
Planned Water Line Replacement  
Phase 8

MALCOLM PIRNIE, INC.  
Location Map  
FIGURE 2-1

**Legend**

-  Water Line Replacement
-  Streets



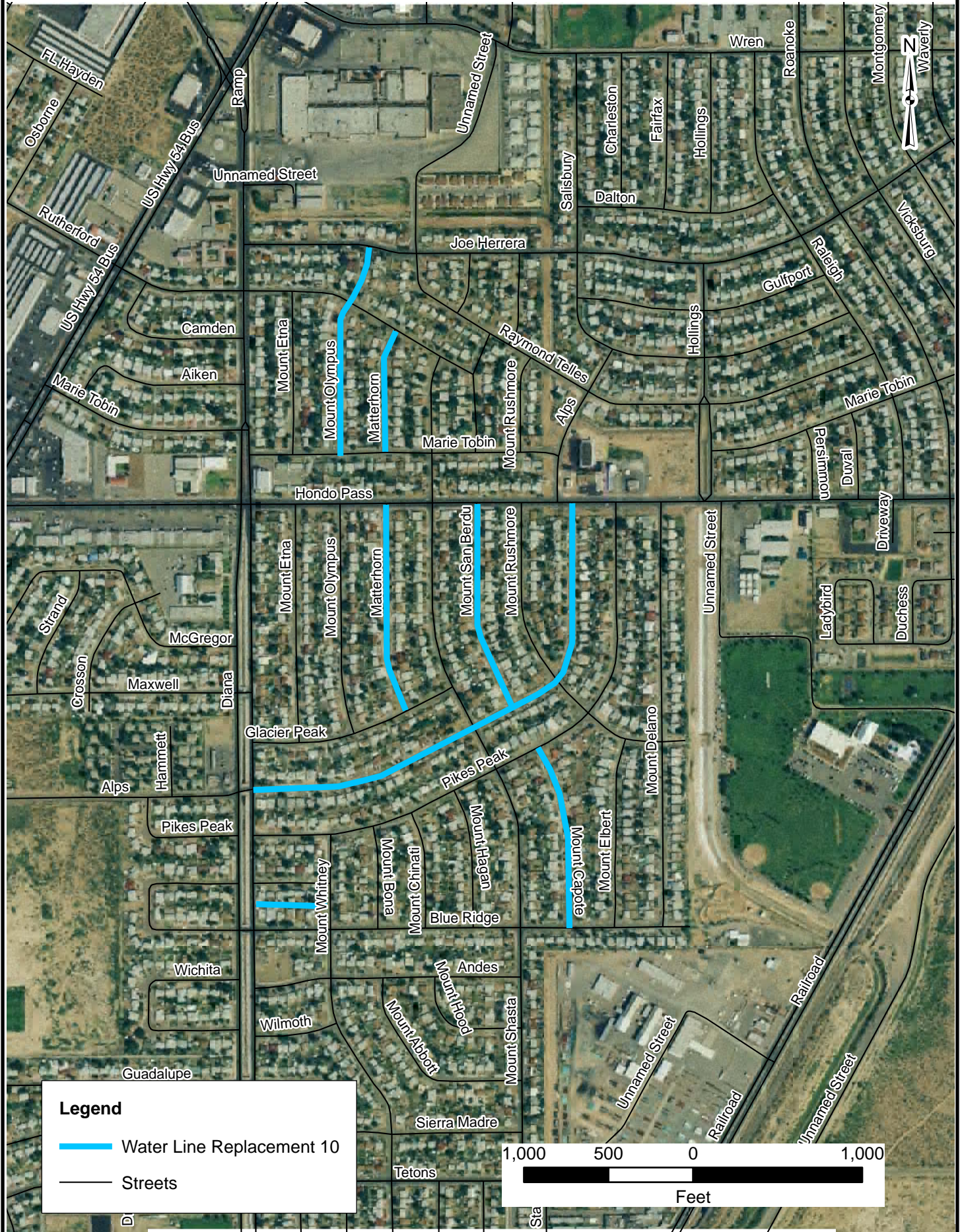
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El Paso Water Utilities  
Annual Rehabilitation Project

Planned Water Line Replacement  
Phase 9

MALCOLM PIRNIE, INC.  
Location Map  
FIGURE 2-2



El Paso Water Utilities  
Annual Rehabilitation Project

Planned Water Line Replacement  
Phase 10

MALCOLM PIRNIE, INC.  
Location Map  
FIGURE 2-3

## 3. Existing Environmental and Foreseeable Effects

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### 3.1. Physical Resources

#### 3.1.1. Physiography, Geology, and Soils

The Sites fall within the Basin and Range province. The Basin and Range Region is a physiographic province of the U.S. and northern Mexico that covers parts of Arizona, Texas, New Mexico, Utah, Idaho, Oregon, California, and most of Nevada. Topography is characterized by linear, north and south trending valleys and normal fault-block mountain ranges resulting from extension of the Earth's crust.

The Trans-Pecos is the region west of the Pecos River, bounded by the Rio Grande on the south and west, and on the north by the thirty-second parallel, which forms the boundary with the state of New Mexico. The topography of the Project area is generally flat, associated with the floodplain of the Rio Grande. Man-made alterations to the topography consist of the roads, drainages, and elevated house sites. Practically the entire landscape within the Project area is altered to some degree by development. No alteration of the topography of the Project area would occur as a result of the Proposed Action; therefore, physiography impacts will not be discussed further.

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 in unpaved areas, the impacts would occur to only a very small sub-surface area or areas paved with asphalt, not substantially altering the geology of the region. Additionally, the replacement of pipeline is located directly underneath existing road rights-of-way and existing city streets, and would, therefore, not modify the area's geology. There are no critical geologic resources or sensitive seismic areas located in the vicinity of the Project corridor; therefore, geologic resources would not be discussed further.

Soils in the Project area consist of fine sandy and silty clay loams associated with the Rio Grande floodplain and terraces. All of the soils have been disturbed by road construction, and general grading and leveling of the area to accommodate the construction of neighborhoods. No unique or prime farmland soils are located within the Project corridor.

The proposed Phase 8 action area occurs within the Delnorte-Canutio and Bluepoint soil associations, the Phase 9 action area occurs within the Delnorte-Canutio soil association and the Phase 10 action area occurs within Turney-Berino soil association (USDA 2009).

The Delnorte-Canutio Association is present on almost level to steep soils. The soils are at shallow or very shallow over caliche if not it is deep and gravelly throughout. This association covers approximately 9% of the county. The Delnorte soils (major soil<sub>1</sub>) occupy about 55% and about 18% of the Canutio soils and about 27% is minor soils. Delnorte soils typically consist of a surface layer of pinkish-gray, calcareous very gravelly loam about 6” thick. Caliche is underlying this surface layer with about 24” thick, also a gravelly fine sand below the caliche. Canutio soils (major soil<sub>2</sub>) which are calcareous very gravelly sandy loam throughout. The minor soils such as Bluepoint, Agustin, and Pajarito soils exist but at lower elevations.

The Bluepoint Association is present on deep, slightly sloping to extreme sloping soils which consist of a loamy sand underlying material. This association covers approximately 15% of the county. The Bluepoint soils (major soil) occupy about 98% and 2% is minor soils. Bluepoint soils have a gravelly sand surface layer (at high elevations). Pajarito soils are the principle minor soil (at low lying elevations).

The Turney-Berino Association is present at almost level and slightly sloping soils that have clay loam subsoil and are somewhat deep over caliche. This association approximately covers 5% of the county. Turney soils (major soil<sub>1</sub>) occupy about 68% and 18% of the Berino soils and 14% of minor soils. Turney soils typically have a surface layer of about 10” thick. It is light reddish-brown fine sandy loam to a depth of about 3” and there is a light-brown loam below. The subsoil is a light –brown, calcareous loam and to reach a soft caliche it is about 34”. Berino soils (major soil<sub>2</sub>) typically consist of a surface layer that almost resembles Turney soils but that is noncalcareous and the subsoil of clay loam contains clay films on the soil particle. The minor soils that also exist in this association are the Hueco soils (eastern edge) and the Agustin and Pajarito soils (slightly higher elevations and on the western edge).

The ground would be temporarily and minimally disturbed by trenching during construction. The soils have been previously impacted during original pipeline installation as well as during road construction. The excavated material would be used to bury the pipelines during construction. Disturbed soil would be re- vegetated or re-paved following construction. There would be no long-term effect to soils by the proposed Project or by the no-action alternative; therefore soils and soil impacts will not be discussed further.

### **3.1.2. Climate**

El Paso County climate is classified as arid. Summers are hot and dry, and winters are cool. Average monthly temperatures range from 42 degrees Fahrenheit (F) in January to 82 degrees F in July. Annual precipitation is approximately 9 inches that primarily falls in summer, and most of it is in the form of high-intensity thundershowers that cause erosion and, in lower areas, local flooding. Dust storms are common in late winter and



spring that remove soil material from area and deposit it in another. Precipitation and humidity is low in the spring, therefore plants grow very little at that time. Consequently, the soil surface is poorly protected from strong winds and heavy rains. There would be no effect to climate by the proposed Project or by the no-action alternative.

### **3.1.3. Water Resources**

Section 401 of the CWA, (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. Section 401 of the CWA does not apply to this Project, as there would be no discharge associated with construction activities or other disturbance within waters or wetlands of the United States.

Section 402 of the Clean Water Act (CWA; 33 U.S.C. 1251 *et seq.*) as amended, regulates construction discharges of pollutants into waters of the United States or a municipal separate storm sewer system (MS4) and specifies that storm-water discharges associated with construction activities shall be conducted under the National Pollution Discharge Elimination System (NPDES) guidance. Construction activities associated with storm-water 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 TPDES general permit (TXR150000) guidance would apply to these Projects because each of the Projects would cause greater than one acre of ground disturbance activity and discharge to an MS4. Therefore, a Storm-Water Pollution Prevention Plan (SWPPP) is required by the contractor as well as notification to the MS4 Operator. Impacts from storm-water are expected to be negligible.

Section 404 of the CWA, (CWA; 33 U.S.C. 1251 *et seq.*) as amended, provides for the protection of waters of the United States through regulation of the discharge of dredged or fill material. The Corps' 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 United States. 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 United States.

### **3.1.4. Floodplains and Wetlands**

Pursuant to the National Flood Insurance Act of 1968, as amended (42 U.S.C. 4001 *et seq.*), and the Flood Disaster Protection Act of 1973 (P.L. 93-234, 87 Stat. 975), EO 11988, Floodplain Management, 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. EO 11988 requires that agencies evaluate the potential effects of actions within a floodplain and to avoid floodplains unless the agency determines that there is no practicable alternative.

The proposed Phase 8 and Phase 9 action is located within areas that have been designated with an “X” in the Federal Emergency Management Agency (FEMA) Flood Zone Designation. The “X” represents areas outside the 500-year flood plain with less than 0.2% annual probability of flooding. The proposed Phase 10 action is predominantly located within areas that have been designated with an “A” in the FEMA Flood Zone Designation. The “A” represents areas within the 100-year flood plain with a greater than 1% annual probability of flooding. Both actions would result in no effect to the existing topography and would not alter the impervious areas. There would be no adverse effect to floodplains by the proposed Project or by the no-action alternative; therefore floodplains and floodplain impacts will not be discussed further.

All construction would take place within existing road right-of-way and therefore would have no adverse impacts to wetlands. Impacts to wetlands will not be discussed further.

### 3.1.5. Air Quality, Noise and Aesthetics

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). EPA has established standards for six principle pollutants, also called criteria pollutants (Table 3-1). If a geographic area exceeds the limitations of one or more of the pollutants listed in Table 3-1 (EPA, 2009), it is considered to be a non-attainment area and is subject to the formal rule-making process.

**Table 3-1:  
National Ambient Air Quality Standards**

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm* (10 mg/m <sup>3</sup> )	8-hour <sup>(1)</sup>	None	
	35 ppm (40 mg/m <sup>3</sup> )	1-hour <sup>(1)</sup>		
Lead	0.15 µg/m <sup>3</sup> <sup>(2)</sup>	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary	
Nitrogen Dioxide	0.053 ppm (100 µg/m <sup>3</sup> )	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup>	24-hour <sup>(3)</sup>	Same as Primary	
Particulate Matter (PM <sub>2.5</sub> )	15.0 µg/m <sup>3</sup>	Annual <sup>(4)</sup> (Arithmetic Mean)	Same as Primary	

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	35 µg/m <sup>3</sup>	24-hour <sup>(5)</sup>	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour <sup>(6)</sup>	Same as Primary	
	0.08 ppm (1997 std)	8-hour <sup>(7)</sup>	Same as Primary	
	0.12 ppm	1-hour <sup>(8)</sup>	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour <sup>(1)</sup>
	0.14 ppm	24-hour <sup>(1)</sup>		
<p>(1) Not to be exceeded more than once per year.            (2) Final rule signed October 15, 2008.            (3) Not to be exceeded more than once per year on average over 3 years.            (4) To attain this standard, the 3-year average of the weighted annual mean PM 2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.            (5) To attain this standard, the 3-year average of the 98<sup>th</sup> percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).            (6) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).            (7) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.            (b) The 1997 standard – and the implementation rules for that standard – will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.            (8) (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.            (b) As of June 15, 2005 EPA has revoked the 1-hour ozone standard in all areas except the fourteen 8-hour ozone nonattainment Early Action Compact (EAC) Areas. For one of the 14 EAC areas (Denver, CO), the 1-hour standard was revoked on November 20, 2008. For the other 13 RAC areas, the 1-hour standard was revoked on April 15, 2009.            *ppm=parts per million</p>				

Source: <http://www.epa.gov/air/criteria.html>

El Paso County is classified as a non-attainment area for particulate matter (PM-10) and carbon monoxide (CO) air quality standards. 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. CO forms when carbon in fuel doesn't burn completely. The main source of CO in the air is vehicle emissions.

The proposed Project would result in a temporary but negligible increase in suspended dust particles from construction activities. Best Management Practices to be followed during construction to minimize dust include wetting of disturbed areas. All vehicles involved in transporting spoil from the Project site would be covered and would have required emission control equipment. These practices would minimize dust and emissions-related air quality impacts during construction. Once construction is complete, the project areas would have no further effects on air quality. Therefore, air quality would not be affected by the proposed Project or by the no-action alternative.

Background noise levels in the proposed Project area are relatively low. During construction, noise would temporarily increase in the vicinity during vehicle and equipment operation. The Noise Center (Center for Hearing and Communication, 2009) 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. However, the increase in noise during construction would be minor and temporary, ending when construction is complete. Therefore, the proposed Project would have no significant affect on noise. Also, refer to the following website for the City's Noise Ordinance for further definitions and descriptions (<http://www.nonoise.org/lawlib/cities/el Paso.htm>).

Aesthetically, the terrain of the Project area is characterized by residential development. The area receives no recreational use with the intent of viewing scenery. The proposed Project would have a temporary effect on aesthetics. During construction, heavy equipment would be visible in the work areas. Long term aesthetic conditions would not be affected by the proposed Project or the no-action alternative.

## **3.2. Biological Resources**

### **3.2.1. Vegetation Communities**

Phase 8, Phase 9 and Phase 10 are all within the Trans-Pecos Ecoregion (Gould et al., 1960). 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 Projects are located in highly developed areas and are found within the Urban vegetation type as mapped and described by Texas Parks and Wildlife Department (TPWD) (McMahan et al., 1984).

Urban or industrial areas are delineated by city limits. No signature and groundtruth points were collected, largely owing to the complexity of urban settings and vegetation composition. A site visit was made to the three Project areas on November 10, 2009 (Phase 9 and 10) and February 1, 2010 (Phase 8 area) and revealed that the Phase 8 Project area was primarily residential with little vegetation other than xeroscaped yards and public areas. The replacement of pipe would take place under public roads and back alleys. The Phase 9 Project area is located within back alleys that are paved or degraded to gravel. The Phase 10 Project area is located within a residential neighborhood and within asphalt paved roads. Vegetation would not be adversely affected by the proposed Projects or the no-action alternative. A complete photographic log of the Project areas is attached as Appendix A.

### **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. In order to prevent this, all equipment would be cleaned with a high-pressure water jet before leaving an area and entering a new area.

### **3.2.3. Wildlife**

According to Brown (1982), the Project areas occur within the biotic community of the Chihuahuan Desertscrub and Semidesert Grassland. Wildlife species that could frequent this area may include: black-tailed jackrabbit (*Lepus californicus*), and three species of kangaroo rats (*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 Project area.

The proposed construction would occur in areas that have been developed, or in areas where sparse vegetation exists. A biological survey was conducted on November 10, 2009 and February 1, 2010. 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 significant impacts should occur to wildlife as a result of the proposed Projects 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 endangered and threatened species considered by U.S. Fish and Wildlife Service (USFWS) and TPWD as having potential to occur in El Paso County. The analysis for this section includes a review of TPWD’s Natural Diversity Database (NDD), including review of maps and Element Occurrence Records (EOR). The NDD review did not identify any EORs for either Project area. Both Project areas are highly disturbed and developed areas and are not expected provide habitat for any special status species. Special status species that occur in El Paso County and may occur near the proposed Project areas are listed below in Table 3-2 (USFWS 2008, TPWD 2009).

**Table 3-2:  
Federal and State Special Status Species Listed for El Paso County, Texas**

Common Name	Scientific Name	Federal Status (USFWS) <sup>a</sup>	Texas Status (TPWD) <sup>b</sup>
<b>Amphibians</b>			
Northern leopard frog	<i>Rana pipiens</i>	--	SOC
<b>Birds</b>			
Common Name	Scientific Name	Federal Status (USFWS) <sup>a</sup>	Texas Status (TPWD) <sup>b</sup>
American Peregrine falcon	<i>Falco peregrinus anatum</i>	DL	T
Arctic peregrine falcon	<i>Falco peregrines tundrius</i>	DL	--
Baird's sparrow	<i>Ammodramus bairdii</i>	--	SOC
Ferruginous hawk	<i>Buteo regalis</i>	--	SOC
Interior least tern	<i>Sterna antillarum athalassos</i>	LE	E
Mexican spotted owl	<i>Strix occidentalis lucida</i>	LT	T
Montezuma quail	<i>Cyrtonyx montezumae</i>	--	SOC
Northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	LE	E
Peregrine falcon	<i>Falco peregrinus</i>	DL	T
Prairie falcon	<i>Falco mexicanus</i>	--	SOC
Snowy plover	<i>Charadrius alexandrinus</i>	--	SOC
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	LE	E
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	--	SOC
Western snowy plover	<i>Charadrius alexandrius nivosus</i>	--	SOC
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	C	SOC
<b>Fishes</b>			
Bluntnose shiner	<i>Notropis simus simus</i>	--	T
Rio Grande silvery minnow	<i>Hybognathus amarus</i>	LE	E
<b>Insects</b>			
A royal moth	<i>Sphingicampa raspa</i>	--	SOC
A tiger beetle	<i>Cicindela hornii</i>	--	SOC
Barbara Ann's tiger beetle	<i>Cicindela politula barbarannae</i>	--	SOC
Poling's hairstreak	<i>Fixsenia polingi</i>	--	SOC
<b>Mammals</b>			
Big free-tailed bat	<i>Nyctinomops macrotis</i>	--	SOC
Black bear	<i>Ursus americanus</i>	T/SA	T
Black-footed ferret	<i>Mustela nigripes</i>	LE	SOC
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	--	SOC
Cave myotis bat	<i>Myotis velifer</i>	--	SOC
Desert pocket gopher	<i>Geomys arenarius</i>	--	SOC
Fringed bat	<i>Myotis thysanodes</i>	--	SOC

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Gray wolf	<i>Canis lupus</i>	LE	E
Long-legged bat	<i>Myotis volans</i>	--	SOC
Pale Townsend's big-eared bat	<i>Corynorhinus townsendii pallescens</i>	--	SOC
Pecos River muskrat	<i>Ondatra zibethicus ripensis</i>	--	SOC
Western red bat	<i>Lasiurus blossevillii</i>	--	SOC
Western small-footed bat	<i>Myotis ciliolabrum</i>	--	SOC
Yuma myotis bat	<i>Myotis yumanensis</i>	--	SOC
<b>Mollusks</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal Status (USFWS)<sup>a</sup></b>	<b>Texas Status (TPWD)<sup>b</sup></b>
Franklin Mountain talus snail	<i>Sonorella metcalfi</i>	--	SOC
Franklin Mountain wood snail	<i>Ashmunella pasonis</i>	--	SOC
<b>Reptiles</b>			
Big Bend slider	<i>Trachemys gaigeae</i>	--	SOC
Chihuahuan Desert lyre snake	<i>Trimorphodon vilkinsonii</i>	--	T
Mountain short-horned lizard	<i>Phrynosoma hernandesi</i>	--	T
New Mexico garter snake	<i>Thamnophis sirtalis dorsalis</i>	--	SOC
Texas horned lizard	<i>Phrynosoma cornutum</i>	--	T
<b>Plants</b>			
Comal snakewood	<i>Colubrina stricta</i>	--	SOC
Desert night-blooming cereus	<i>Peniocereus gregii var greggii</i>	--	SOC
Hueco rock-daisy	<i>Perityle huecoensis</i>	--	SOC
Resin-leaf brickellbush	<i>Brickellia baccharidea</i>	--	SOC
Sand prickly-pear	<i>Opuntia arenaria</i>	--	SOC
Sand sacahuista	<i>Nolina arenicola</i>	--	SOC
Sneed's pincushion cactus	<i>Escobaria sneedii var sneedii</i>	LE	E
Texas false saltgrass	<i>Allolepis texana</i>	--	SOC
Wheeler's spurge	<i>Chamaesyce geyeri var wheeleriana</i>	--	SOC
<p><b>Federal Status:</b> protected by the Endangered Species Act (ESA) (as maintained by U.S. Fish and Wildlife Service): Only Endangered and Threatened species are protected by the ESA.            LE: Listed Endangered – any species that is in danger of extinction throughout all or a significant portion of its range.            LT: Listed Threatened – any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.            C: Candidate – taxa for which the Services has on file sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.            DL: Delisted – any species for which the Services had previously listed as endangered or threatened but has recovered and is no longer in need of ESA protection.            T/SA: Threatened by Similarity of Appearance</p> <p><b>State of Texas status:</b>            E: Endangered – species whose prospects of survival or recruitment within the state are in jeopardy.            T: Threatened – species whose prospects of survival or recruitment within the state are likely to become jeopardized in the foreseeable future.            SOC: Species of Concern – rare, but with no regulatory listing status.</p>			

None of the species listed above have suitable habitat present within the Project areas. Therefore, there would be no effect to state or federally listed species as a result of these Projects.

### **3.3. Cultural Resources**

This project is in compliance with the National Historic Preservation Act of 1966 and other cultural resource laws. Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, American Indian tribes that have indicated they have concerns in El Paso County have been contacted regarding the proposed project (see Appendix B). To date, the Corps has received no indication of tribal concerns that would impact this project. No Traditional Cultural Properties are known by the Corps to occur in the project construction area.

GTI Environmental, Inc. and Malcolm Pirnie conducted background reviews for this project (see Appendix B). According to the Texas Historical Commission's (THC) Atlas database, the Phase 8, Phase 9, and Phase 10 project areas have been surveyed previously for cultural resources, and no archaeological sites or other historic properties were identified within the project areas. Because previous surveys did not identify any historic properties, and because the project would be limited to buried water lines within existing, previously-disturbed construction trenches and curb, sidewalk, and pavement replacement at ground level, GTI and Malcolm Pirnie concluded that the project would have "no effect" to historic properties eligible for listing on the National Register of Historic Places or worthy of designation as State Archaeological Landmarks. The Corps concurs with GTI Environmental's recommendations. THC concurred with a "no effect" determination in response to two letters prepared by GTI Environmental and Malcolm Pirnie (concurrences both dated February 9, 2010; see Appendix B).

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

### **3.4. Human Health and Safety**

The Project under Section 219 provides environmental assistance to non-Federal interests in the form of design and construction assistance for wastewater treatment and related facilities. The proposed Project would have a negligible short-term health and safety impact during construction. Human health would benefit from the Project by repairing and replacing aging and failing water and sewer lines in the existing pipeline system. In the long-term, a minor benefit would occur to human health and safety due to the



proposed Project by eliminating raw sewage discharge to the sub-surface and surface environment.

### **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 2008 was 613,190 with El Paso County having an estimated population of 742,062 (U.S. Census Bureau, 2008). The racial background for El Paso County is: 77.9 percent white including Hispanic American, 2.8 percent black or African American, 0.6 percent American Indian and Alaska Native, 1.1 percent Asian, 0.1 percent Native Hawaiian and Other Pacific Islander, 15.3 percent are some other race, and 2.1 percent are two or more races. Of these, 81.4 percent of the El Paso County population is of Hispanic or Latino origin (of any race).

In 2007, the per capita personal income in El Paso County was \$26,585 compared to \$37,083 for the state of Texas (U.S. Department of Commerce, Bureau of Economic Analysis, 2009). The unemployment rate for El Paso County for the period of October 2008 to September 2009 was 6.5 percent (U.S. Department of Labor, Bureau of Labor Statistics, 2009). The proposed Project would take place within neighborhood areas (single family) that have been disturbed by road construction and is currently used for utilities (under the roads). The proposed Project would not change or affect land use or socioeconomic resources in the Project area. The proposed Projects would spur local construction jobs for a temporary period of time.

### **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 2000 Census, El Paso County minority population is 78.2 percent of the total population and 27.1 percent of the El Paso County residents had incomes below the poverty level. The EPWU Water Distribution System Improvement Project would be conducted under Section 219 of the Water Resources Development Act of 1992. 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, this Project would benefit several areas within a minority and low-income community. No adverse impacts on minority and/or low-income populations are expected. Under the definition of EO 12898, there would be no adverse environmental justice impacts under the proposed action.

### **3.7. Cumulative Impacts**

As defined in 40 *Code of Federal Regulations* (CFR) 1508.7 (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 footprints of the proposed Projects are located within developed areas to upgrade antiquated water and sewer lines within the water and wastewater distribution pipeline infrastructure in order to prevent and alleviate line breaks in the system within the city of El Paso. The Projects would facilitate additional development within the Grandview, Morningside Heights and Mountain View neighborhoods, and to a lesser extent the surrounding area. The pipeline replacement would allow for increased demand upon the utility service and accommodate continued growth within the immediate area either by construction of new homes or replacement of homes with larger homes. Contingent upon zoning, some local businesses could grow or mobilize into the area. Future pipeline repairs would be made on an as needed basis and dependent upon failure or structural integrity. There are no future plans for system upgrades. For these reasons, the proposed Project when combined with past, present, and future activities in the City of El Paso would not significantly add to or raise local cumulative environmental impacts to a level of significance.

## 4. Conclusions and Summary

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### 4.1. Conclusions

The proposed action evaluated in this EA addresses the effects of the replacement and rehabilitation of water distribution pipeline infrastructure, water service connectors, and dilapidated sewer lines to eliminate problem areas within the El Paso water distribution and sewer collection systems.

The analysis indicates that the proposed replacement of the lines would serve a local need for improved water distribution service, reliable sewer collection system, and improved groundwater quality. The proposed Project 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. Preparation, Consultation and Coordination

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### 5.1. Preparation

This EA was prepared by Malcolm Pirnie, Inc. on behalf of El Paso Water Utilities (EPWU). Personnel primarily responsible for preparation include:

Erin Foster	Environmental Scientist, Malcolm Pirnie, Austin, TX
Scott Walker	Environmental Scientist, Malcolm Pirnie, Austin, TX
Lori Carter	Environmental Scientist, Malcolm Pirnie, Austin, TX
Chad Martin	Senior Project Scientist, Malcolm Pirnie, Austin, TX
Garrett Ferguson	Field Technician, Malcolm Pirnie, El Paso, TX

### 5.2. Quality Assurance

This EA has been reviewed for quality assurance purposes. Personnel who reviewed this EA include:

Michael Martinez	Project Manager, USACE, Albuquerque District
Julie Alcon	Chief, Environmental Resources, USACE, Albuquerque District
Lance Lundquist	Archaeologist, USACE, Albuquerque District
Justin Reale	Biologist, USACE, Albuquerque District
Danielle Galloway	Biologist, USACE, Albuquerque District

### 5.3. General Consultation and Coordination

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

- U.S. Fish and Wildlife Service  
Ecological Field Services Field Office
- Texas Parks and Wildlife Department
- Texas Commission on Environmental Quality
- Texas Historical Commission

### **5.3.1. Distribution List for DEA Public Review**

Property owners within fifty-feet of the construction centerline (Figures 5-1 through 5-3) and owners of proposed staging areas potentially impacted by the Phase 8, 9, and 10 Projects were notified of the proposed project and sent a notice of availability of the DEA. The DEA was also submitted to the below state and federal agencies as well as distributed to the local library for public review:

U.S. Fish and Wildlife Service  
Mr. Adam Zerrenner, Field Supervisor  
Austin Ecological Services Field Office  
10711 Burnet Road, Suite 200  
Austin, Texas 78758

Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, Texas 78744

Texas Commission on Environmental Quality  
12100 Park 35 Circle  
Austin, TX 78753

Bill Martin  
Texas Historical Commission  
1511 Colorado  
Austin, Texas 78711-2276

US Environmental Protection Agency  
Region 6 Office of Planning and Coordination  
1445 Ross Avenue  
Dallas, Texas 75202-2750

Honorable Donald G. Tofpi  
Chairman, Kiowa Tribe of Oklahoma  
P.O. Box 369  
Carnegie, Oklahoma 73015

Honorable Joe Shirley  
President, Navajo Nation  
P.O. Box 9000  
Window Rock, Arizona 86515

Honorable Michael Burgess  
Chairman, Comanche Nation of Oklahoma  
P.O. Box 908  
Lawton, Oklahoma 73502

Honorable Jeff Houser  
Chairman, Fort Sill Apache Tribe  
Route 2, Box 121  
Apache, Oklahoma 73006

Honorable Chino Mark  
President, Mescalero Apache Tribe  
P.O. Box 227  
Mescalero, New Mexico 88340

Honorable Ronnie Lupe  
Chairman, White Mountain Apache Tribal Council  
P.O. Box 700  
Whiteriver, Arizona 85941

Honorable Frank Paiz

Governor, Ysleta del Sur Pueblo  
P.O. Box 17579 – Ysleta Station  
El Paso, Texas 79917

Honorable Robert Benavides  
Governor, Pueblo of Isleta  
Post Office Box 1270  
Isleta Pueblo, New Mexico 87022

Mr. Alan Downer  
Tribal Historic Preservation Officer, Navajo Nation  
P.O. Box 4950  
Window Rock, Arizona 86515

Mr. Ron Maldonado  
Historic Preservation Department, Navajo Nation  
PO Box 4950  
Window Rock, Arizona 86515

Mr. Tony H. Joe, Jr.  
HPD, Traditional Cultural Program, Navajo Nation  
P.O. Box 4950  
Window Rock, Arizona 86515

Mr. Jimmy Arterberry  
Tribal Historic Preservation Officer, Comanche Nation of Oklahoma  
P.O. Box 908  
Lawton, Oklahoma 73502

Ms. Holly Houghton  
Tribal Historic Preservation Officer, Mescalero Apache Tribe  
P.O. Box 227  
Mescalero, New Mexico 88340

Mr. Leland Michael Darrow  
Tribal Historian, Fort Sill Apache Tribe  
Route 2, Box 121  
Apache, Oklahoma 73006

Mr. Ben Lucero  
Historic Preservation, Pueblo of Isleta  
1621A SR 314  
Albuquerque, New Mexico 87105

Mr. Henry Walt  
Cibola Research Consultants, Pueblo of Isleta  
508 Hermosa SE  
Albuquerque, New Mexico 87108

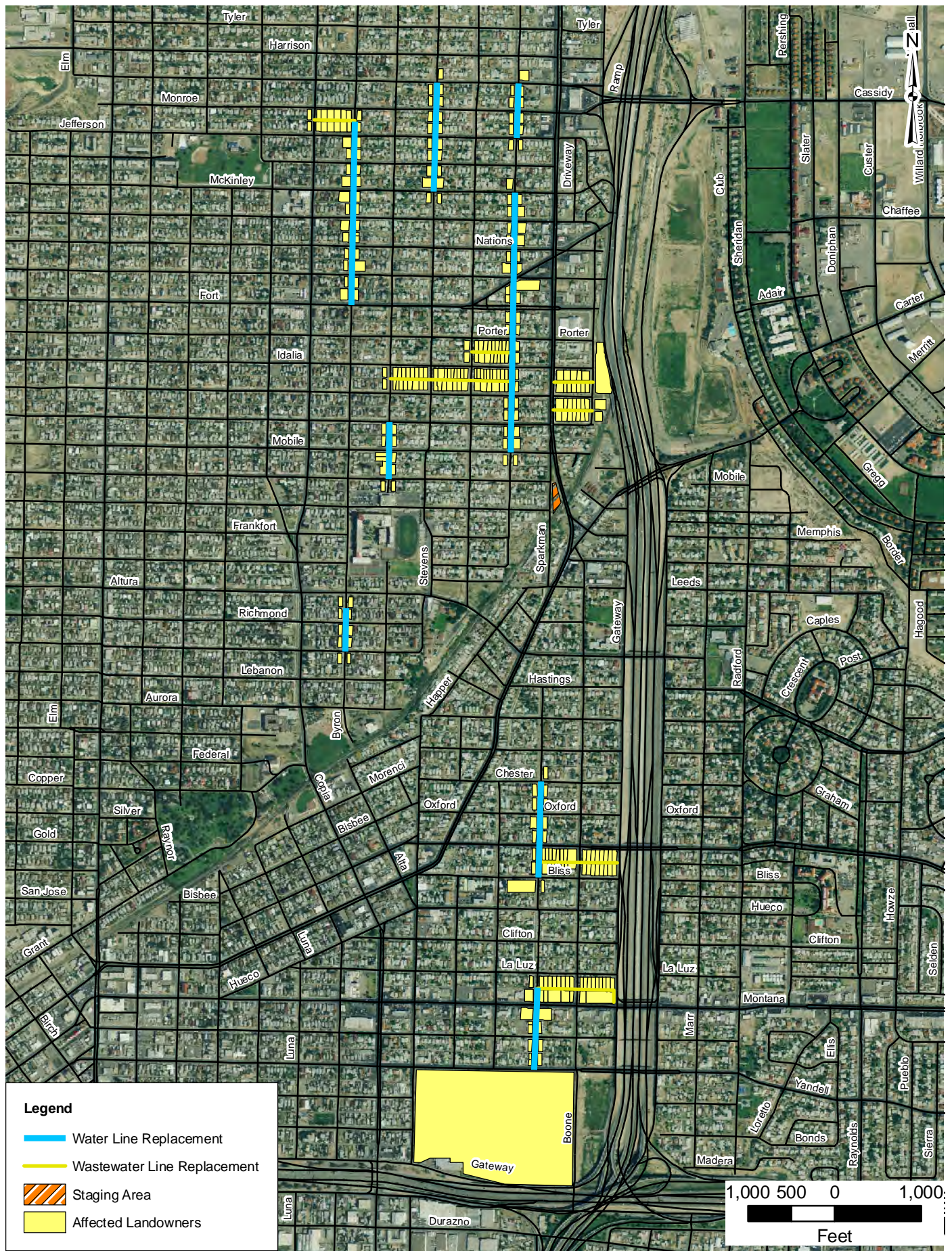
Mr. Rick Quezada  
NAGPRA Representative, Ysleta del Sur Pueblo  
P.O. Box 17579, Ysleta Stn.  
El Paso, Texas 79917

Mr. Mark Altaha  
Tribal Historic Preservation Officer, White Mountain Apache Tribal Council  
P.O. Box 700  
Whiteriver, Arizona 85941

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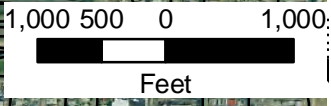
Memorial Park Branch Library  
3200 Copper  
El Paso, Texas 79903

The El Paso Times  
300 N. Campbell St.  
El Paso, Texas 79901



**Legend**

- Water Line Replacement
- Wastewater Line Replacement
- Staging Area
- Affected Landowners

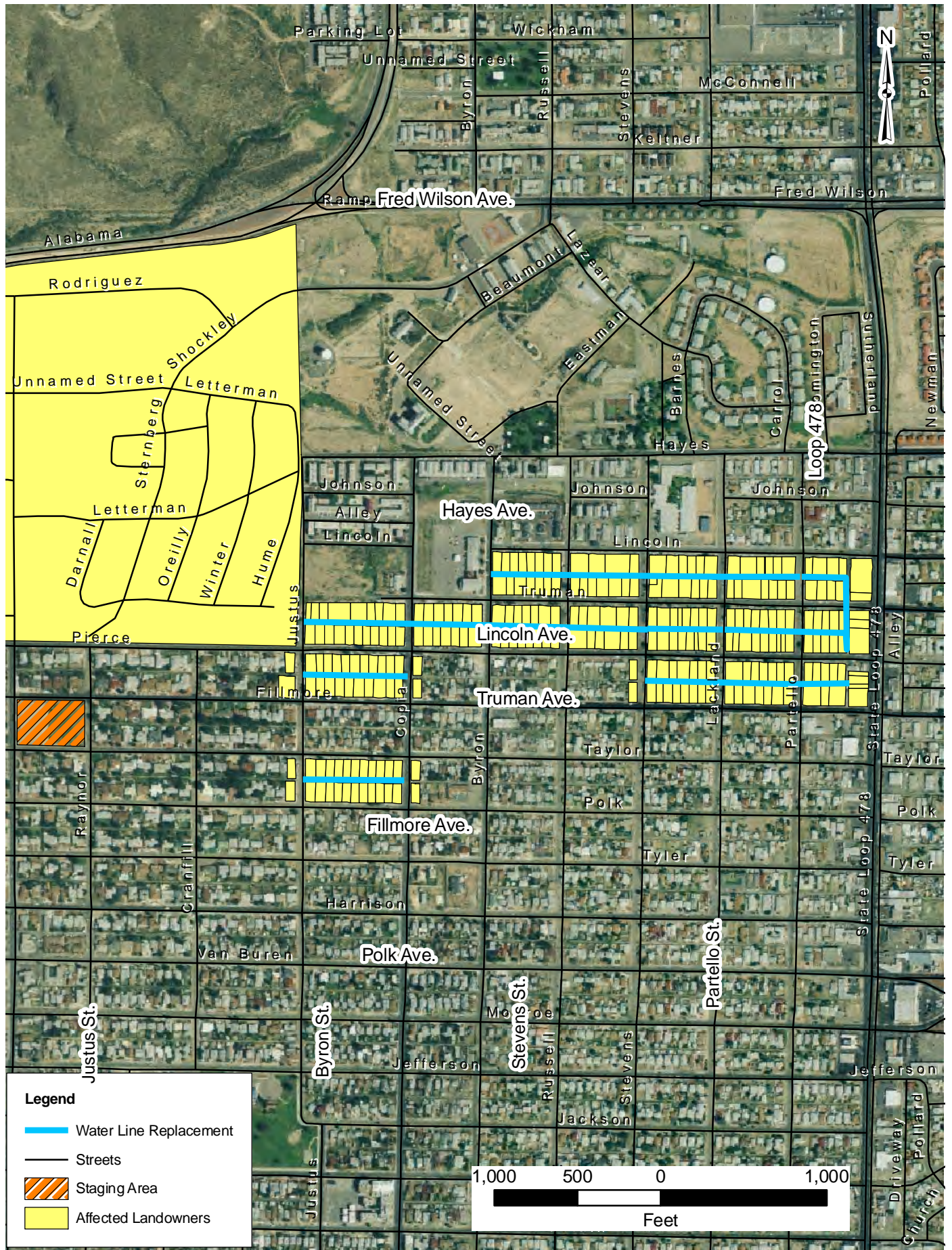


El Paso Water Utilities  
**Annual Rehabilitation Project**

Mountain View  
**Planned Water Line Replacement  
 Phase 8**

MALCOLM PIRNIE, INC.  
**Parcel Map  
 FIGURE 5-1**



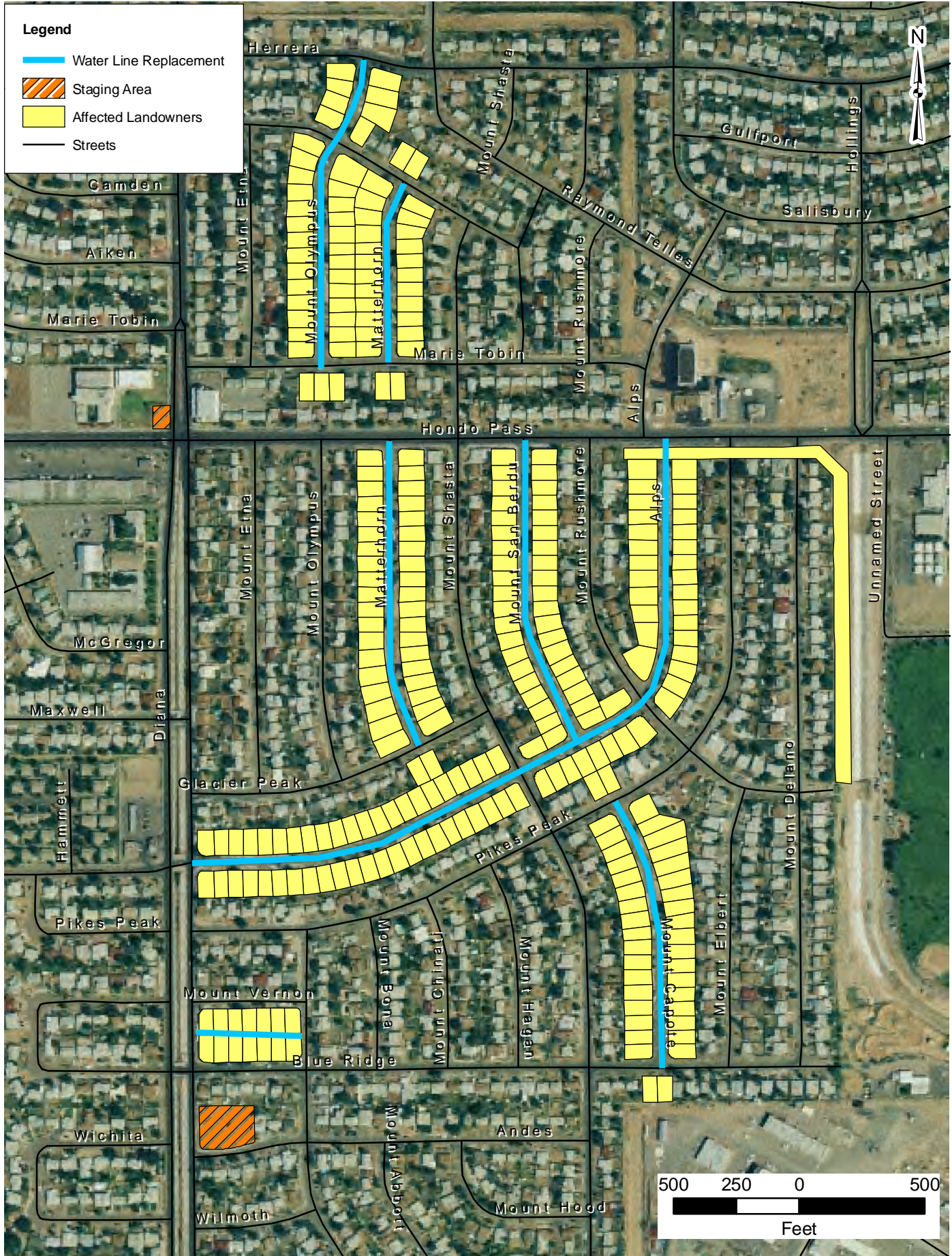


El Paso Water Utilities  
Annual Rehabilitation Project

Planned Water Line Replacement  
Phase 9

MALCOLM PIRNIE, INC.

Parcel Map  
FIGURE 5-2



El Paso Water Utilities  
 Annual Rehabilitation Project

Mountain View  
 Planned Water Line Replacement  
 Phase 10

MALCOLM PIRNIE, INC.  
 Parcel Map  
 FIGURE 5-3

## 6. References

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Brown, D. E. 1982. *Desert Plants: Biotic Communities of the American Southwest-United States and Mexico*. University of Arizona, Superior, Arizona.

Gould, F. W., Hoffman, G.O., and Rechenthin, C.A. 1960. *Vegetational Areas of Texas*, Texas A&M University. Texas Agricultural Experiment Station, Leaflet No. 492 (as modified by the Texas Parks and Wildlife Department).

U.S. Environmental Protection Agency (EPA). 2009.  
<http://www.epa.gov/air/criteria.html>, accessed November 2009.

Center for Hearing and Communication. 2009. Noise Center. *Common Environmental Noise Levels Factsheet*. <http://www.chchearing.org/noise-center-home/facts-noise/common-environmental-noise-levels>, accessed December 2009.

McMahan, C.A., Frye, R.G., Brown, K.L. 1984. *The Vegetation Types of Texas, Including Cropland*. Texas Parks and Wildlife Department.

U.S. Census Bureau. 2008. <http://factfinder.census.gov>, accessed December 2009.

U.S. Department of Commerce, Bureau of Economic Analysis. 2009.  
<http://www.bea.gov>, accessed December 2009.

U.S. Department of Labor, Bureau of Labor Statistics. 2009. <http://bls.gov>, accessed December 2009.