



— BUREAU OF —
RECLAMATION

Draft Environmental Assessment — Project Advanced Water Purification Facility – El Paso, Texas

U.S. Department of the Interior
Upper Colorado Region: Interior Region 7
Albuquerque Area Office

October 2024

CONTENTS

1.	PURPOSE AND NEED	1
1.1	Introduction	1
1.2	Purpose and Need for Agency Action	1
1.3	Background.....	5
1.4	Scope of Environmental Assessment	8
2.	DESCRIPTION OF THE PROPOSED ACTION.....	10
2.1	Project Overview.....	10
2.2	Project Timeline and Readiness	12
2.3	Project Cost and Funding Request	12
2.4	Alternatives Considered During Initial Project Planning.....	13
	2.4.1 Reasonable Alternatives	13
	2.4.2 No-Action Alternative	13
2.5	Construction.....	13
	2.5.1 Construction of Project Structures and Equipment Installation	15
	2.5.2 Project Schedule.....	17
	2.5.3 Advanced Water Treatment Summary.....	17
3.	ENVIRONMENTAL CONSEQUENCES.....	18
3.1	Introduction	18
3.2	Environmental Setting.....	18
3.3	Cultural Resources	19
	3.3.1 Native American Interests.....	20
3.4	Water Resources	20
	3.4.1 Wetlands and Streams.....	20
	3.4.2 Groundwater and Surface Water	24
3.5	Air Quality	26
3.6	Noise.....	27
	3.6.1 Existing Conditions	28
	3.6.2 New Construction Impacts	28
3.7	Traffic and Transportation.....	29
3.8	Aesthetic and Visual Resources	30
3.9	Biological Resources and Threatened and Endangered Species	30
	3.9.1 Vegetation and Habitat	31
	3.9.2 Wildlife	31
	3.9.3 Threatened and Endangered Species	32
3.10	Socioeconomics and Environmental Justice.....	34
	3.10.1 Socioeconomics.....	34
	3.10.2 Environmental Justice.....	35
3.11	Health and Safety	36
3.12	Soils and Prime Farmlands.....	37
3.13	Cumulative Impacts	38
	3.13.1 Aesthetic and Visual Resources	40
	3.13.2 Cultural Resources	40
	3.13.3 Socioeconomics and Environmental Justice.....	41
	3.13.4 Transportation.....	41
4.	REFERENCES	42

5. DRAFT FINDING	44
6. LIST OF AGENCIES CONTACTED	45
7. LIST OF PREPARERS	46

List of Tables

Table 1	Current Demand, Current Supply, and 2030 Water Demand Projection	7
Table 2	Key Project Development Milestone Dates	17
Table 3	Project Potential to Emit Air Pollutants (With Controls)	27
Table 4	Sound Levels of Common Noises	28
Table 5	Description of Vegetation/Habitat and Proposed Project-related Impacts	31
Table 6	Federal and State-listed Threatened and Endangered Species of Potential Occurrence in El Paso County, Texas	33
Table 7	Population, Ethnicity, and Poverty	35
Table 8	EPA’s EJ Screen Report	36
Table 9	NRCS Web-Soil Survey – Mapped Soil Associations within the Project Site	37

List of Figures

Figure 1	Project Site Vicinity Map	2
Figure 2	Project Site Location Map	3
Figure 3	Project Site Topographic Map	4
Figure 4	Surface Water Resources Map	22
Figure 5	Site Details Map	23
Figure 6	Llano Grande Lake – Arroyo Colorado Watershed Map	25
Figure 7	Soils Map	39

List of Exhibits

Exhibit 1	El Paso Water Sources, which Include Surface Water from Reclamation’s Rio Grande Project and Groundwater from Two Groundwater Basins	5
Exhibit 2	Non-drought Year and Drought-year Supply Portfolios	6
Exhibit 3	El Paso County Drought Intensity Timeline. Droughts Have Been Varied and Unpredictable for El Paso County	6
Exhibit 4	El Paso Water Usage Rates Since 1977	7
Exhibit 5	Direct Potable Reuse (DPR) Diagram	10
Exhibit 6	Advanced Water Purification Facility Process Diagram	11
Exhibit 7	Proposed AWPf Site and El Paso Water Treatment Campus	11

Exhibit 8	El Paso Water Project Planning Timeline	12
Exhibit 9	Currently Proposed Facility Master Plan Layout	15

List of Appendices

Appendix A	Applicable Project Permits and Approvals
Appendix B	Design Plans
Appendix C	Site Photographs
Appendix D	Agency and Tribal Correspondence
Appendix E	Lists of Threatened and Endangered Species of Potential Occurrence in the Project Area

Acronyms and Abbreviations

APE	area of potential effects
ATLAS	Texas Historic and Archeological Sites Atlases
AWPF	Advanced Water Purification Facility
BMP	best management practice
Bustamante WWTP	Roberto R. Bustamante Wastewater Treatment Plant
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
dB	decibels
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
EPWater	El Paso Water
ESA	Endangered Species Act
FM	Farm to Market
GPCD	gallons per capita per day
HSE	Health, Safety, and Environment
IPaC	Information for Planning and Consultation
kVA	Kilovolt amp
MGD	Million gallons per day
NAAQS	National Ambient Air Quality Standard
NATA	National-scale Air Toxics Assessment
NCCPI	National Commodity Crop Productivity Index
NEPA	National Environmental Policy Act
NHD	National Hydrography Database
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PPE	personal protective equipment
PSD	Prevention of Significant Deterioration
SESC	Soil Erosion and Sedimentation Control
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened and Endangered
THC	Texas Historical Commission
TIA	Traffic Impact Analysis
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
TPY	Tons Per Year

U.S.	United States
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

1. PURPOSE AND NEED

1.1 Introduction

This Draft Environmental Assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) to evaluate the potential environmental effects of El Paso Water’s (EPWater) proposed Advanced Water Purification Facility (AWPF) project located at the existing Roberto R. Bustamante Wastewater Treatment Plant (Bustamante WWTP) in El Paso, El Paso County, Texas (**Figures 1 through 3**). The project funding will be provided by the United States (U.S.) Bureau of Reclamation (Reclamation) under the Title XVI Water Reclamation and Reuse Program. Through the Title XVI program, Reclamation identifies and investigates opportunities to reclaim and reuse wastewaters and impaired ground and surface water in the 17 western states and Hawaii. The Title XVI Program includes funding for the planning, design, and construction of water recycling and reuse projects in partnership with local government entities. In 2022, water reuse projects funded through the Title XVI Program delivered over 443,000 acre-feet of recycled water.

Bureau of Reclamation Large-Scale Water Recycling Program

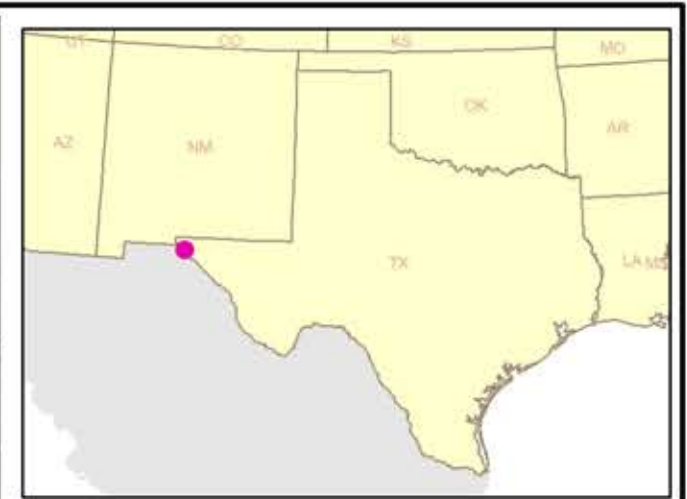
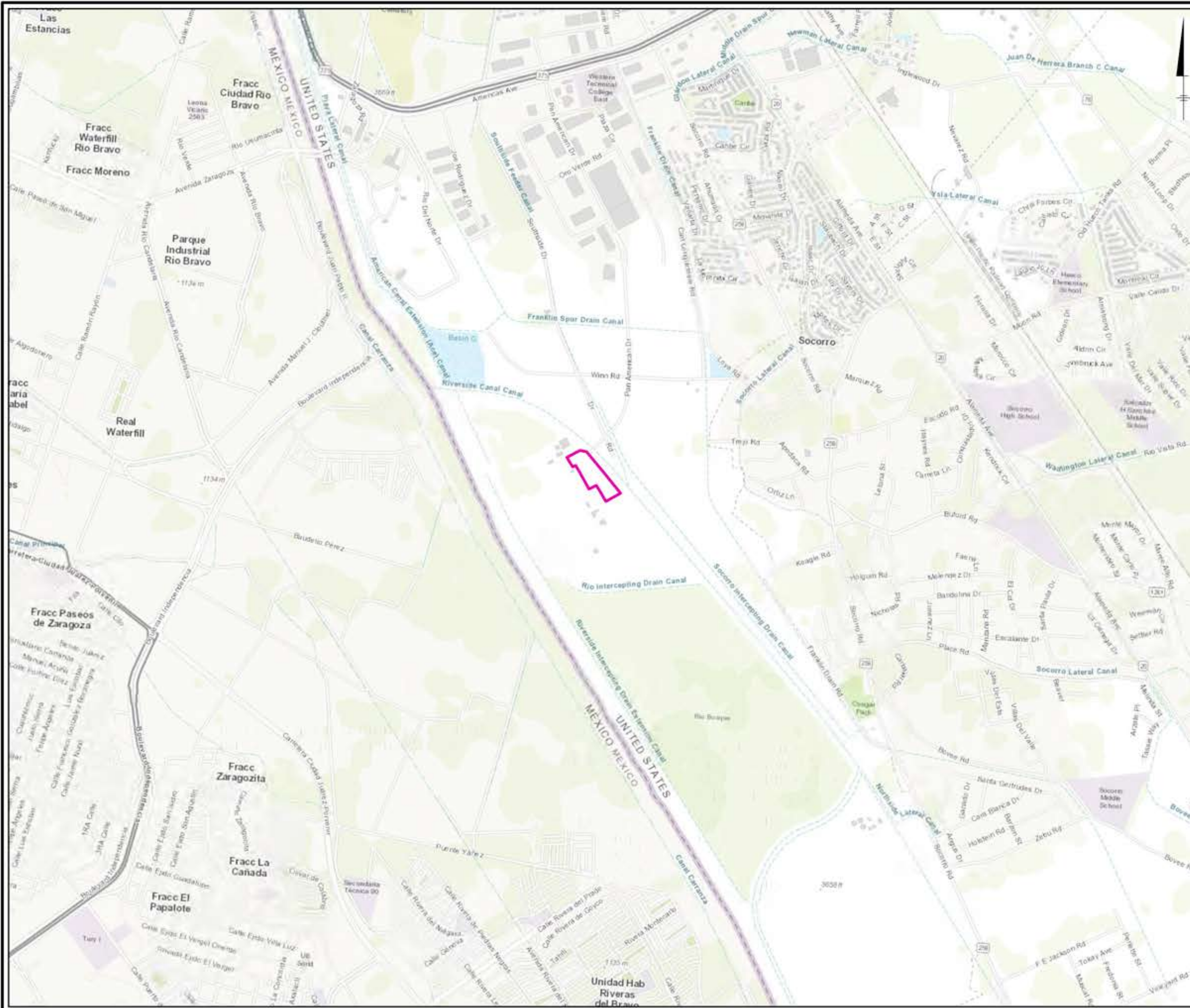
Funding for Title XVI projects is provided under the U.S. Water Infrastructure Improvements for the Nation (WIIN) Act. Section 40905 of the Bipartisan Infrastructure Law (BIL), Public Law (P.L.) 117-58, provides authority for Reclamation’s Large-Scale Water Recycling Program. The program will provide \$450 million over five years to projects in Reclamation states that have a total project cost greater than or equal to \$500,000,000, at 25 percent Federal cost share, with no per-project maximum. Large-scale recycled water projects will play an important role in helping communities develop local, drought-resistant sources of water supply by turning currently unusable water sources into a new source of water supply that is less vulnerable to drought and climate change.

Projects become eligible to compete for funding under the Large-Scale Water Recycling Program once Reclamation has reviewed a feasibility study submitted by the non-Federal project sponsor and has informed Congress that the project meets Reclamation’s requirements. EPWater completed the feasibility study in March 2022 under Funding Opportunity Announcement No. R22AS00115 and has subsequently been approved for project funding.

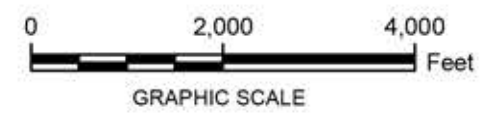
1.2 Purpose and Need for Agency Action

The purpose and need for the AWPF project, and associated agency action, are to increase drought resiliency, reduce groundwater usage, and delay water importation while introducing the most sustainable water source possible to diversify El Paso’s water portfolio. To meet these goals, the AWPF will treat effluent from the Bustamante WWTP to drinking water standards and send the purified water directly into the distribution system, making this facility the first large-scale, direct-to-distribution potable reuse project in the U.S. With the AWPF in place, EPWater will reduce groundwater usage in both non-drought and drought years and continue to meet summer water demand in drought years. EPWater has received \$3.5 million of funding from Reclamation for design and piloting. EPWater has self-funded the remainder of the project work to date.

This project is the ultimate example of potable water reuse and purified water as a sustainable, drought-proof resource. As the population of El Paso County increases, two challenges arise: additional wastewater will need to be treated and drinking water demand will increase. The AWPF benefits the residents of El Paso County by addressing both challenges as part of one critical project.





LEGEND:
 PROJECT LOCATION

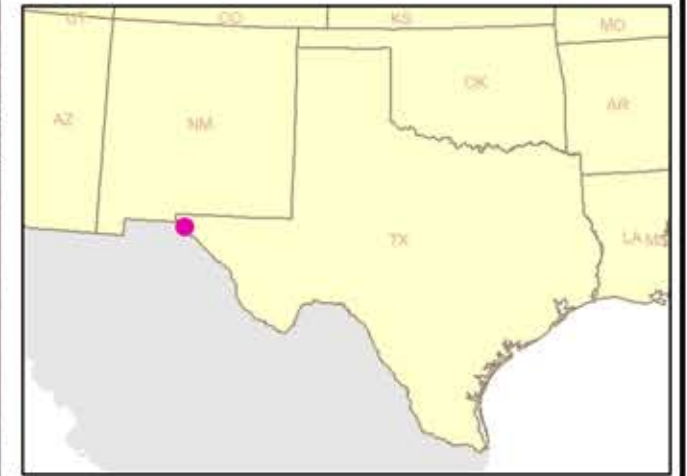


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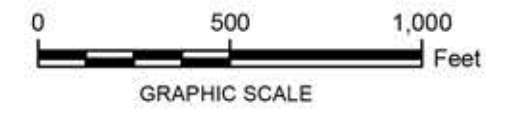
EL PASO WATER ADVANCED WATER
 PURIFICATION FACILITY PROJECT
 EL PASO, TEXAS

SITE VICINITY MAP



 FIGURE 1



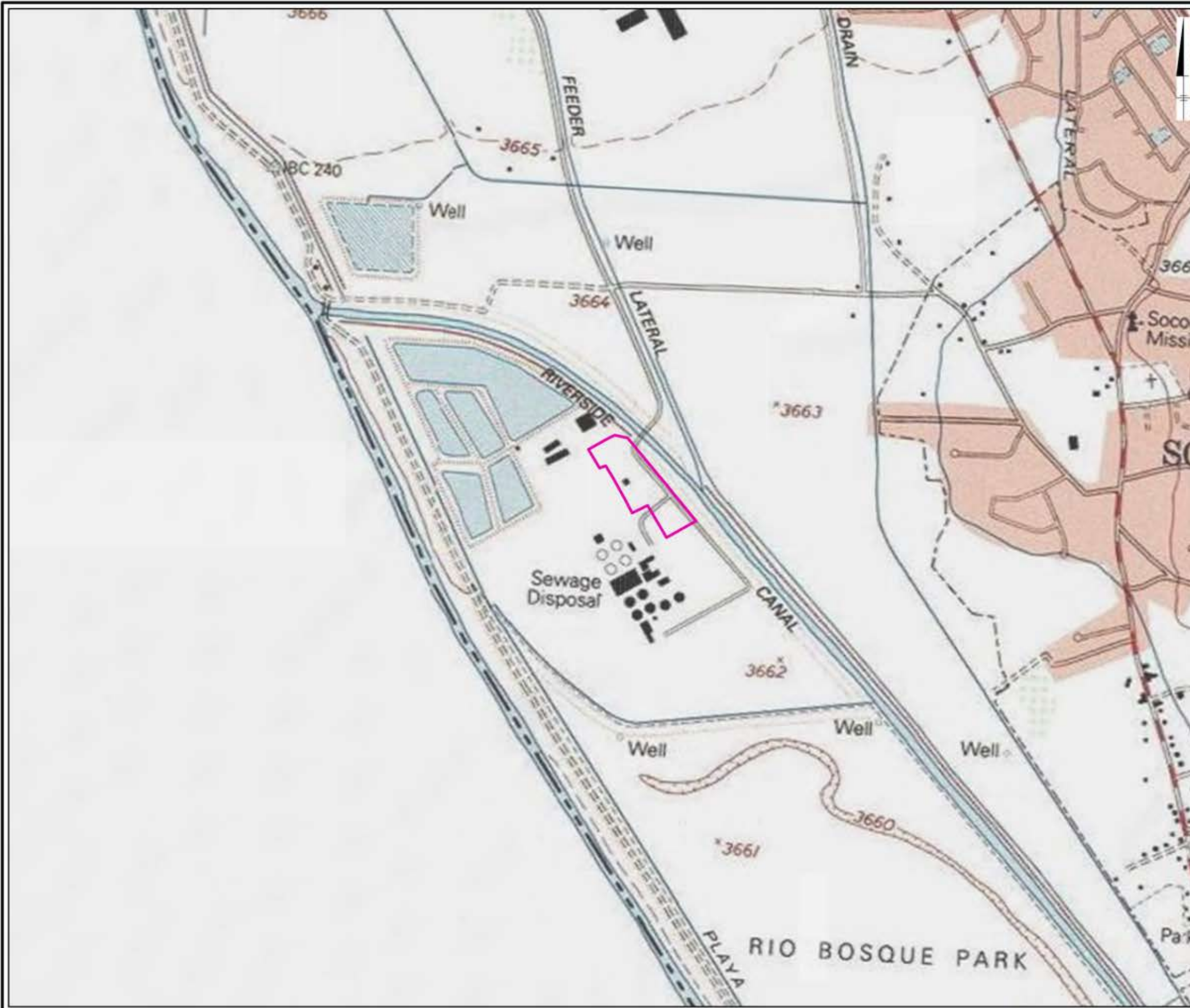
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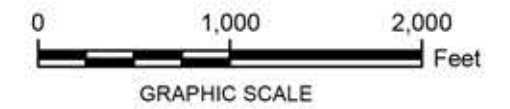
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 1. JUNE 2022 IMAGERY PROVIDED BY GOOGLE EARTH PRO.

EL PASO WATER ADVANCED WATER
 PURIFICATION FACILITY PROJECT
 EL PASO, TEXAS

PROJECT LOCATION MAP



LEGEND:
 PROJECT LOCATION



NOTE:
 1. BASEMAPPING OBTAINED FROM ESRI IMAGE SERVICES.

EL PASO WATER ADVANCED WATER
 PURIFICATION FACILITY PROJECT
 EL PASO, TEXAS

USGS TOPOGRAPHIC MAP



FIGURE
3

45 Key benefits of the project include:

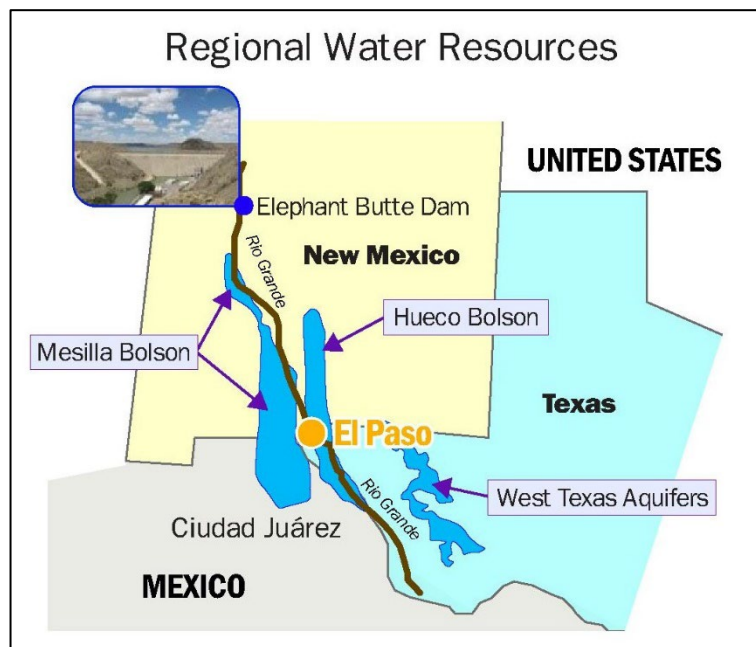
- 46 • Increases water supply resiliency.
- 47 • Provides a new water source to offset the loss of surface water in operational drought conditions.
- 48 • Allows EPWater to meet future demand projections despite population growth.
- 49 • Reduces groundwater dependency to preserve aquifers.
- 50 • Through blending, it takes advantage of an otherwise unusable groundwater source.

51 EPWater is also designing the AWPf concurrently with an expansion of the Bustamente WWTP. This
52 expansion is expected to increase the WWTP's effluent by an additional 12 million gallons per day
53 (MGD). By coordinating the design of both projects, EPWater is creating the country's first Direct Potable
54 Reuse (DPR) "campus," which will include a research center for local university students and will serve as
55 a model for other cities evaluating DPR. There are no expected adverse environmental impacts, but all
56 are under review within the active pre-design process.

57 1.3 Background

58 El Paso is located in the Chihuahuan Desert, and its water utility, EPWater, serves a customer base of
59 approximately 865,000 through retail and wholesale water and service to Fort Bliss. El Paso shares water
60 sources with the neighboring Ciudad Juárez, Mexico, which has an estimated population of over 1.5 million,
61 and with portions of the state of New Mexico. These shared water sources include surface water supplied by
62 Reclamation from Elephant Butte and Caballo reservoirs via the Rio Grande (The Rio Grande Project) and
63 groundwater from shared aquifers, including the Hueco Bolson and Mesilla Bolson (**Exhibit 1**).

64 **Exhibit 1 El Paso Water Sources, which Include Surface Water from**
65 **Reclamation's Rio Grande Project and Groundwater from Two**
66 **Groundwater Basins**

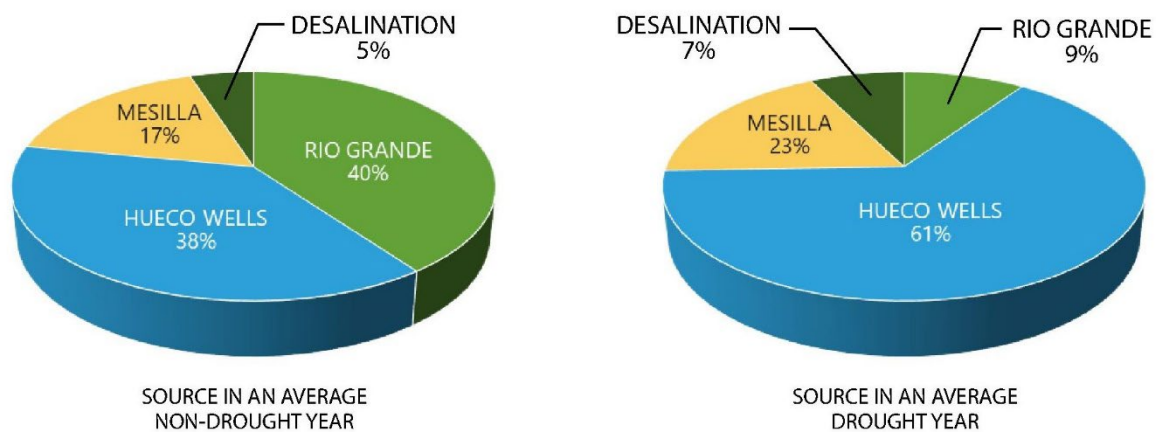


67
68 EPWater follows a conjunctive use plan by balancing water from Reclamation's Rio Grande Project (i.e.,
69 the Rio Grande), two underground aquifers, and reclaimed water from its wastewater plants. During a

70 severe drought, the Far West Texas Regional Planning Group determined that the available surface
 71 water supply for El Paso County is limited to approximately 10,000 acre-feet/year. Thus, during droughts,
 72 EPWater relies heavily on Hueco Bolson groundwater because surface supplies are limited (**Exhibit 2**).
 73 The western side of the aquifer is more brackish. As the aquifer is pumped, brackish water intrudes from
 74 the west to the east and degrades the quality of the water. To meet potable water quality standards,
 75 brackish water must be treated at the Kay Bailey Hutchison Desalination Plant.

76 During drought years, EPWater's available surface water supply is only 10,000 acre-feet/year according
 77 to the Far West Texas Regional Planning Group. Thus, EPWater relies heavily on groundwater. During
 78 non-drought years, when a full surface water allocation is available, EPWater maximizes use of surface
 79 water. El Paso County has been affected by drought in the last year, ranging from moderate to
 80 exceptional drought.

81 **Exhibit 2 Non-drought Year and Drought-year Supply Portfolios**

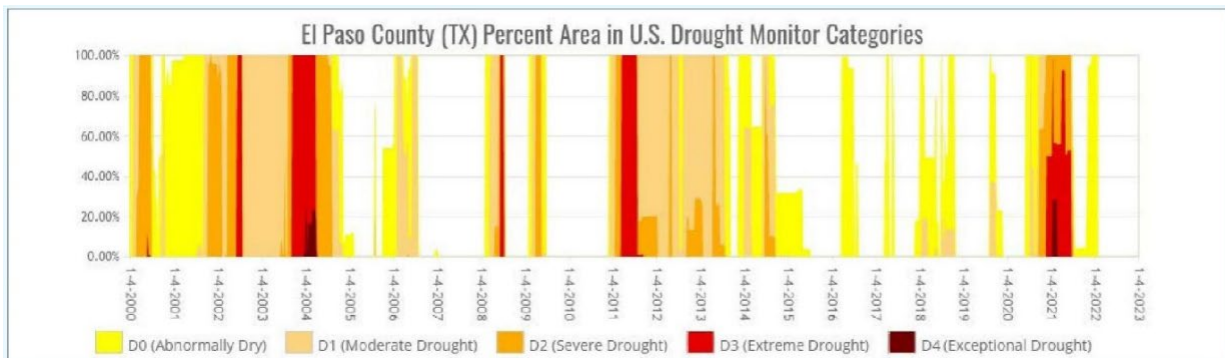


82

83 **UNCERTAIN SUPPLY, REGARDLESS OF DROUGHT CONDITIONS**

84 For most of the last 19 years, El Paso County has experienced varying levels of drought intensity,
 85 interspersed with brief intervals without drought. This pattern is shown in **Exhibit 3** below, which is a
 86 timeline of drought intensity.

87 **Exhibit 3 El Paso County Drought Intensity Timeline. Droughts Have Been**
 88 **Varied and Unpredictable for El Paso County**



89

90 2030 WATER DEMAND FORECAST

91 Drought years provide an important benchmark for EPWater because the Far West Texas Regional
 92 Planning Group - Texas Region E Plan uses the drought of record to determine a region's available water
 93 supply. As provided in **Table 1**, based on the 2021 Region E Plan, EPWater's supply in a drought year
 94 comprises 10,000 acre-feet/year of surface water and 6,000 acre-feet/year of reclaimed water, while
 95 groundwater makes up the remaining balance of 137,754 acre-feet/year. While the current supply
 96 portfolio is adequate for the current demand, EPWater's supply is not sufficient to meet the 2030 demand
 97 projection of 160,611 acre-feet/year.

98 **Table 1 Current Demand, Current Supply, and 2030 Water Demand Projection**

Current Demand	144,000 acre-feet/year
Current Supply	153,754 acre-feet/year
2030 Water Demand Projection	160,611 acre-feet/year

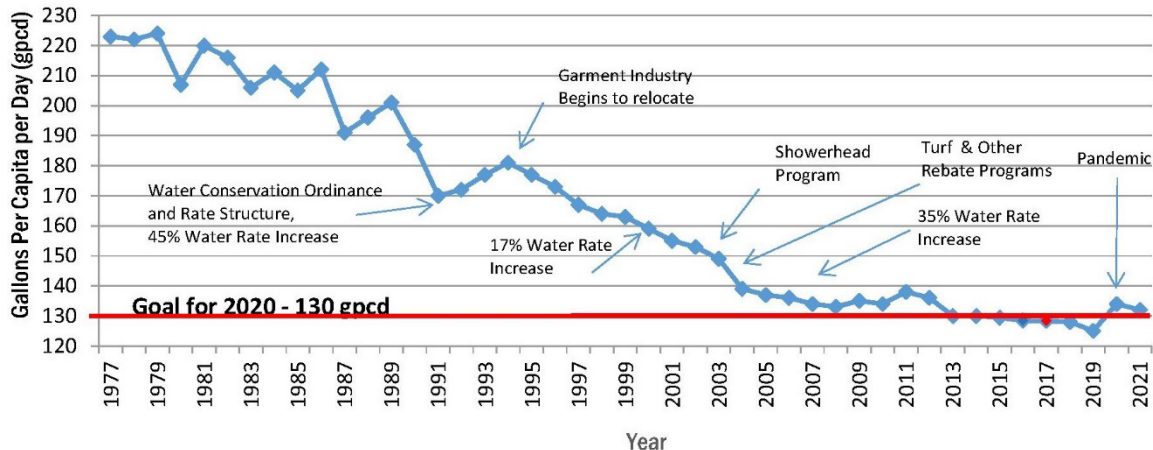
99

100 CONSERVATION IS THE FIRST STEP

101 By conserving water resources, EPWater meets the challenges of supplying water to a Chihuahuan
 102 Desert city by conserving water resources. In 2019, the average usage rate dropped to 125 gallons per
 103 capita per day (GPCD), but the pandemic caused the rate to spike to 134 GPCD. The results of
 104 EPWater's extensive conservation campaign are shown in **Exhibit 4**. The pandemic caused an increase
 105 in water consumption, which is expected to decrease.

106

Exhibit 4 El Paso Water Usage Rates Since 1977



107

108 During non-drought years, EPWater maximizes use of surface water from Reclamation's Rio Grande
 109 Project. During drought years, EPWater relies heavily on groundwater. If surface water from the Rio
 110 Grande Project was not available, EPWater could not meet peak summer demand. EPWater last received
 111 a full allotment of Rio Grande Project water in 2010 and has received its full allotment in only eight of the
 112 last 20 years. EPWater was notified in 2022 that it would only expect to receive water deliveries for a
 113 period of 6-8 weeks rather than the nine-month irrigation season in 2022 and 2023. However, EPWater
 114 has been notified that it will receive a full allotment of water deliveries for 2024 and 2025. Regardless, the
 115 AWPf will provide a guaranteed buffer during peak summer demand to compensate for unanticipated
 116 surface water deliveries from Reclamation and will allow for the reduction of groundwater usage during
 117 non-peak demand for most of the year.

118 1.4 Scope of Environmental Assessment

119 This EA was prepared to address the development and construction of an advanced water treatment
120 facility in El Paso, Texas. Reclamation is preparing this EA to comply with (NEPA, Council on
121 Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations (CFR) Parts
122 1500–1508), and U.S. Department of Interior (DOI) NEPA Implementing Procedures (43 CFR Part 46). If
123 no significant impacts are identified during preparation of this EA, Reclamation will issue a Finding of No
124 Significant Impact. If potentially significant impacts are identified, Reclamation will prepare an
125 Environmental Impact Statement.

126 The environmental review conducted herein includes the construction of the 57,661 square-foot AWP
127 that will tie-in to an existing 72-inch unchlorinated secondary effluent line at the RBWWTP. The applicable
128 project development permits and authorizations are also discussed in this EA, and a complete list of
129 permits and approvals is provided in **Appendix A**.

130 Consistent with NEPA implementing regulations and guidance, EPWater focused the analysis in this EA
131 on topics with the greatest potential for environmental impacts. Multiple factors were considered when
132 determining the applicable issues/resources associated with the project site and the subsequent scope of
133 the analysis in this EA. The NEPA analysis also considered the prior site disturbance history and this EA
134 describes the proposed project and its potential impacts on key resource areas due to the construction
135 and operation of an AWP. The resource areas assessed in this EA include:

- 136 • Cultural Resources
- 137 • Water resources, including wetlands, groundwater, and surface water
- 138 • Air Quality
- 139 • Noise
- 140 • Transportation
- 141 • Aesthetic and Visual Resources
- 142 • Biological Resources
- 143 • Socioeconomics and Environmental Justice
- 144 • Health and Safety
- 145 • Waste Management
- 146 • Soils and Prime Farmlands

147 These resource areas were identified as potentially being impacted by the project, and each was
148 assessed to determine the nature, extent, and significance of those impacts (see Section 3 –
149 Environmental Consequences). The assessment combined desktop research and analysis of existing
150 available information with select field studies, including site assessments related to the presence/absence
151 of wetlands, threatened and endangered species habitat, regulated surface waters, hazardous materials,
152 and cultural resources. In each case, the use of and impact on these resources were demonstrated to be
153 minimal due to the project design and the construction, operations, and maintenance plans that met or
154 exceeded the applicable federal, state, and local safety, design, and environmental protection regulations,
155 codes, and standards.

156 The project site is zoned Heavy Manufacturing, and surrounding land uses include commercial/industrial
157 facilities like the proposed project, a recreational park, agricultural fields and residential use (City of El
158 Paso, 2023). The project site is an undeveloped plot of land located within the existing EPWater
159 Treatment Campus. This sparsely vegetated, barren plot of land within the project area is unlikely to

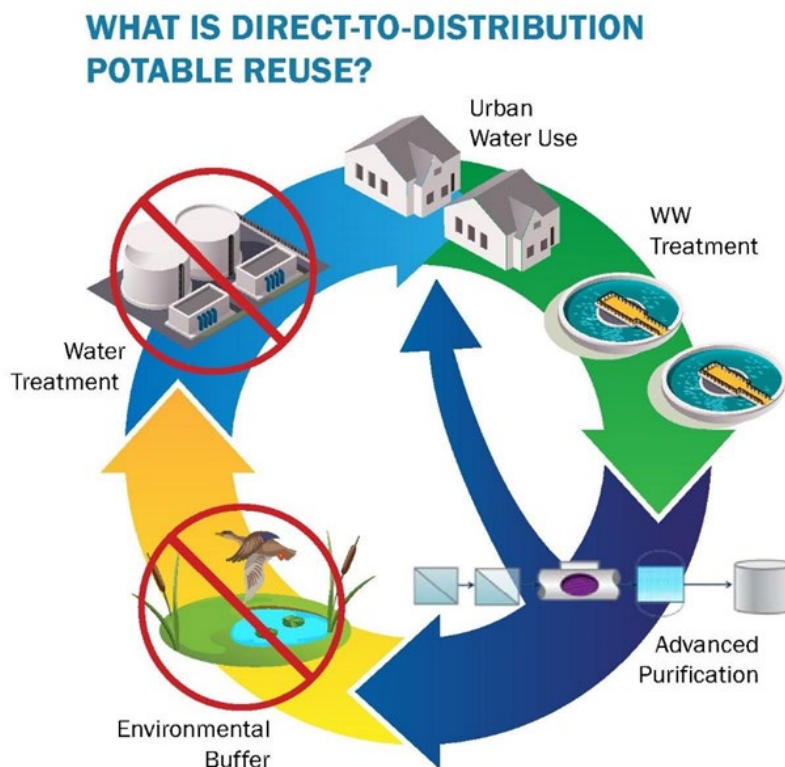
160 provide suitable habitat for sensitive terrestrial vegetation. No parks or recreational open spaces are
161 present within the project area, nor will nearby parks be affected. There are no known mineral deposits
162 (Bureau of Economic Geology, 2021) or unique geological features in the project area. Therefore, based
163 on this evaluation and the sustained site disturbance history, paired with the shared commercial/industrial
164 site use history, impacts on geology, land use, public use and recreation, and terrestrial vegetation are
165 not anticipated and are not included in the scope of this EA.

166 **2. DESCRIPTION OF THE PROPOSED ACTION**

167 **2.1 Project Overview**

168 The EPWater AWPf is a DPR project and it is the first of its kind in the United States (**Exhibit 5**). It arose
169 from challenges faced by a large metropolitan city located in the desert southwest, and EPWater's
170 decades of reuse innovation and experience have continued to push the project forward. El Paso and
171 other cities in the United States currently use indirect potable reuse, which employs an environmental
172 buffer before additional treatment at a drinking water treatment plant. EPWater's AWPf DPR project
173 eliminates the buffer and the water treatment plant steps. With continuing drought conditions, steady
174 population growth, and advanced treatment technologies, DPR should now be considered a legitimate
175 water source for communities across the country.

176 **Exhibit 5 Direct Potable Reuse (DPR) Diagram**



177

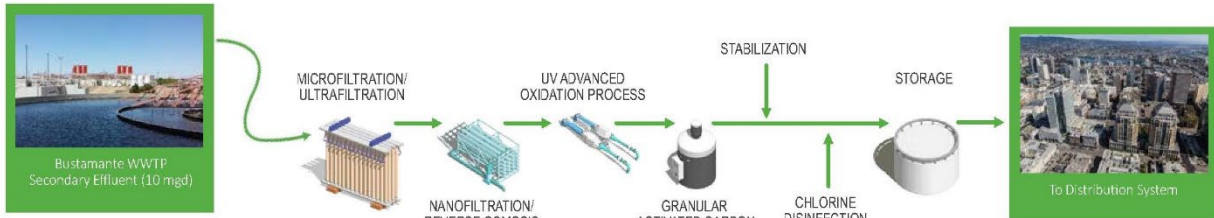
178 The AWPf will treat effluent from the Bustamente WWTP using advanced treatment technologies and will
179 then convey the water directly to EPWater's distribution system (**Exhibit 6**). The AWPf will provide a
180 guaranteed water supply that provides 13,000 acre-feet/year with blending and will more than
181 compensate for both rising demands and an uncertain surface water supply. This translates into the
182 following benefits for the community and the environment:

- 183
- Defers the need for costly groundwater importation projects.
 - 184 • Increases the diversity and reliability of EPWater's water supply by including a new and truly
185 sustainable water source.
 - 186 • Provides a buffer during peak summer demand to compensate for unreliable surface water
187 deliveries from reclamation and drought conditions.

- 188 • Reduces groundwater pumping and preserves aquifers.
- 189 • Maximizes use of EPWater's current investments in wastewater treatment.
- 190 • Promotes the community ethic of recycling and protecting water resources and natural environments.

191 In addition to treatment facilities, the AWPf site will include a research center for local university students.
192 This will be the first site in the U.S. with wastewater treatment, water treatment, and true direct-to-
193 distribution potable reuse facilities on the same site.

194 **Exhibit 6 Advanced Water Purification Facility Process Diagram**



195

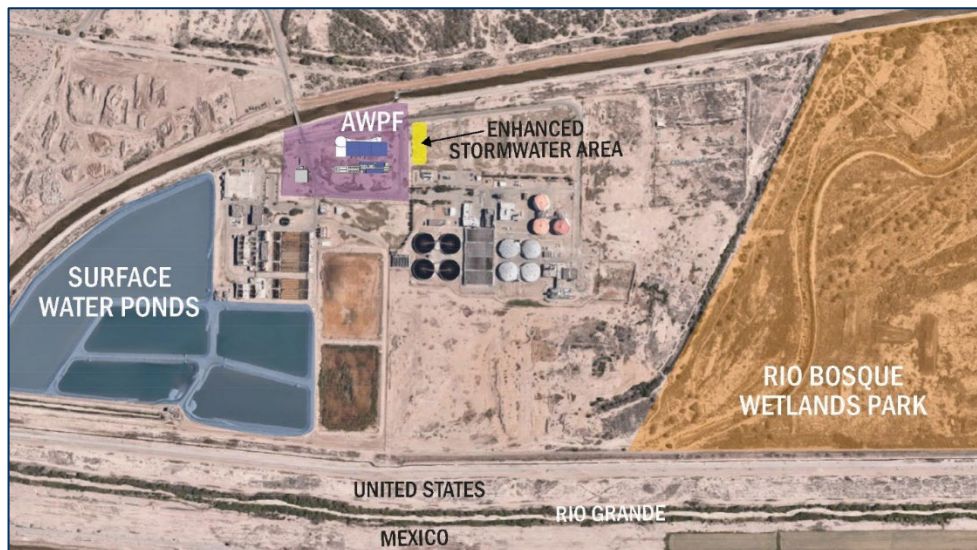
196 **HOW DO WE KNOW IT'S SAFE?**

197 In early 2016, EPWater completed a pilot test that successfully demonstrated that highly purified water
198 can be consistently produced with the treatment train. Thousands of water samples were analyzed at
199 state-certified laboratories, showing that the purified water meets and performs better than all primary and
200 secondary drinking water standards.

201 **WHAT WILL THE AWPf LOOK LIKE?**

202 EPWater is designing the AWPf concurrently with an expansion of the Bustamante WWTP (**Exhibit 7**).
203 This expansion is expected to increase the WWTP's effluent by an additional 12 MGD. By coordinating
204 the design of both projects, EPWater is creating the country's first DPR "campus," which will include a
205 research center for local university students and will serve as a model for other cities evaluating DPR.

206 **Exhibit 7 Proposed AWPf Site and El Paso Water Treatment Campus**

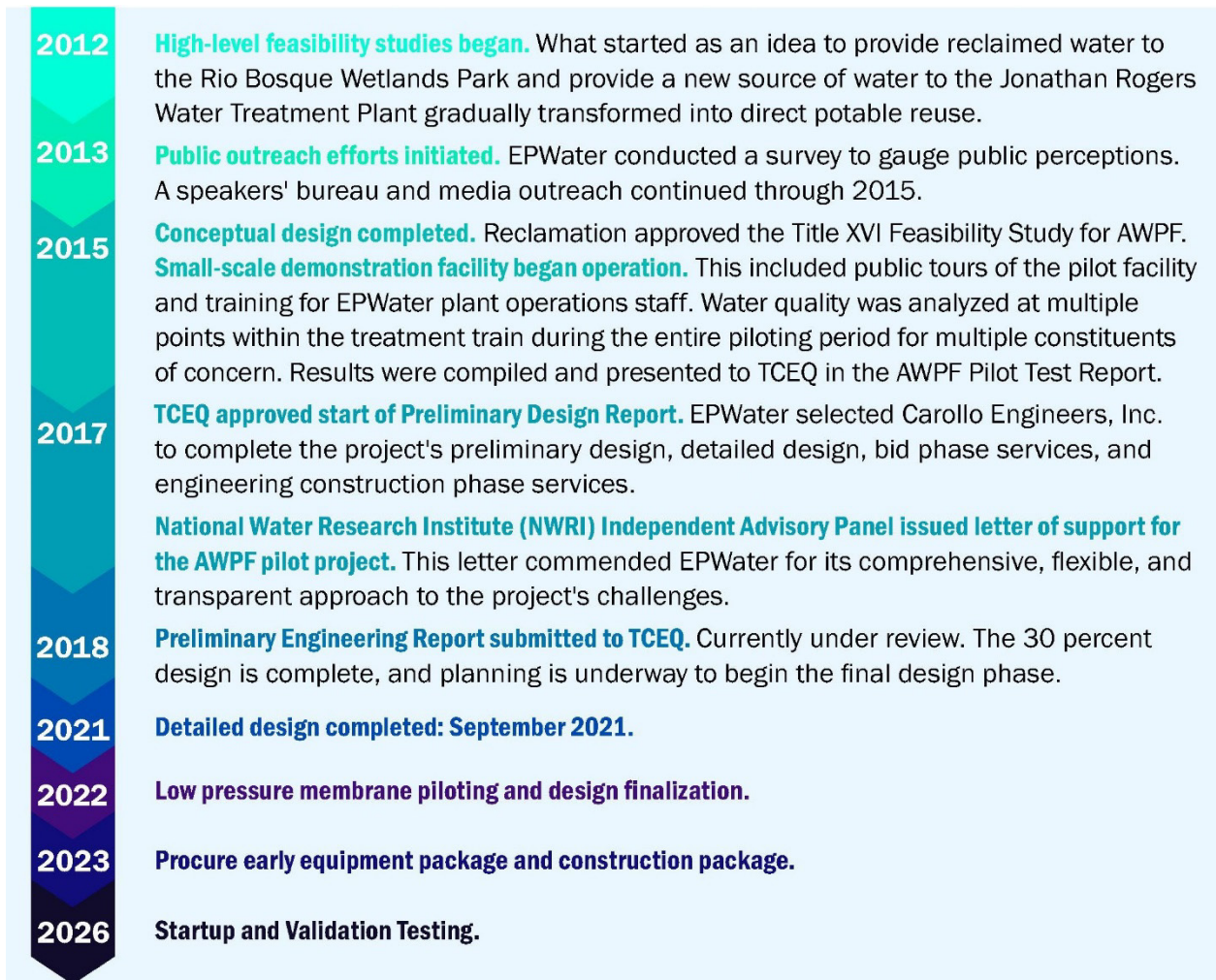


207

208 **2.2 Project Timeline and Readiness**

209 EPWater has taken a careful and measured approach to planning, permitting, and designing the first true
210 direct-to-distribution potable reuse facility in the U.S. (**Exhibit 8**). EPWater piloted low pressure
211 membranes in 2021 to obtain authorization for membranes. The membranes that were piloted and
212 approved in 2015 are no longer available on the market. A new membrane supplier has been selected,
213 and negotiations are currently in progress. The membrane design will be updated and provided in
214 subsequent reports after the negotiations with the supplier are complete.

215 **Exhibit 8 El Paso Water Project Planning Timeline**



216

217 **2.3 Project Cost and Funding Request**

218 The total cost of the pilot, design, early equipment package, environmental compliance, engineering
219 services during construction, and construction from the period beginning October 2021 through
220 September 2025 is expected to be \$83 million. This amount is allocated in EPWater's Capital
221 Improvement Department from 2021–2025. It is anticipated that EPWater will expend additional money
222 on construction, startup, and validation services beyond the September 2025 date. EPWater is requesting
223 \$20 million, which is approximately 25 percent of the expected project costs through September 2025. To
224 date, EPWater has received \$3.5 million from the Title XIV WIIN Water Reclamation and Reuse Projects
225 program and has self-funded the remaining \$13 million.

2.4 Alternatives Considered During Initial Project Planning

Under NEPA, consideration and analysis of the Proposed Action, Reasonable Alternatives, and a No-Action Alternative are required in an EA. Considering alternatives helps to avoid unnecessary impacts and allows for an analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be suitable for decision making (that is, any necessary preceding events have taken place), capable of implementation, and satisfactory with respect to meeting the purpose of and need for which the agency is responding with the Proposed Action.

Multiple factors were involved in determining whether a project alternative was considered reasonable and carried forward for analysis. Those factors were compared to the desired objectives of the proposed project and resource availability. The following critical screening criteria were used in evaluation of alternative sites:

- 13 acres of flat land, zoned industrial.
- Adjacent to largest wastewater treatment facility in the area.
- Existing water distribution system has available capacity to receive new flows from the proposed project.
- Ability to perform extensive piloting process within the existing facilities.
- Extending the water reuse within the Chihuahuan Desert Landscape.
- Availability of technology to bring all the processes together to meet the objectives of the project.

2.4.1 Reasonable Alternatives

Given these factors, there was only one site under consideration for the project that met the criteria. However, other methods of additional water resources were considered to meet the objectives of the project. For example:

- Expansion of the existing water treatment facilities.
- Water importation from Capitan Reef and Dell City.

Significant disadvantages to the other methods include limited surface water availability throughout the year that will grant more water for increased water treatment. Water importation requires more than 90 miles of a new pipeline system with multiple booster stations and additional well drilling and equipment.

2.4.2 No-Action Alternative

Federal regulations specify the requirement for inclusion of the No-Action Alternative in the alternatives analysis (40 CFR 1502.14). The No-Action Alternative serves as a baseline against which the impacts of the Proposed Action and other potential reasonable alternatives can be evaluated. Under the No-Action Alternative, Reclamation would not authorize expenditure of federal funds for the Proposed Project; however, Reclamation assumes that the Proposed Project would be implemented, and site development would occur without Reclamation funding. In order for Reclamation to select the No-Action Alternative, selection of the No-Action Alternative must clearly demonstrate that the Proposed Project would cause significant adverse effects.

2.5 Construction

The project is located at the EPWater Treatment Campus that houses the Jonathan Rogers Water Treatment Plant and the Bustamante WWTP at 10001 Southside Road, El Paso, Texas 79927. The

265 project site is 13 acres, out of which approximately 10.4 acres is being planned for development. The
266 project consists of the construction of a tie-in into an existing 72-inch unchlorinated secondary effluent
267 line at the Bustamante WWTP, followed by a divergence structure from Bustamante WWTP. An influent
268 equalization basin will also include influent feed pumps to pump the water to the AWPf.

269 A Main Process Building as shown on **Exhibit 9** will include the following:

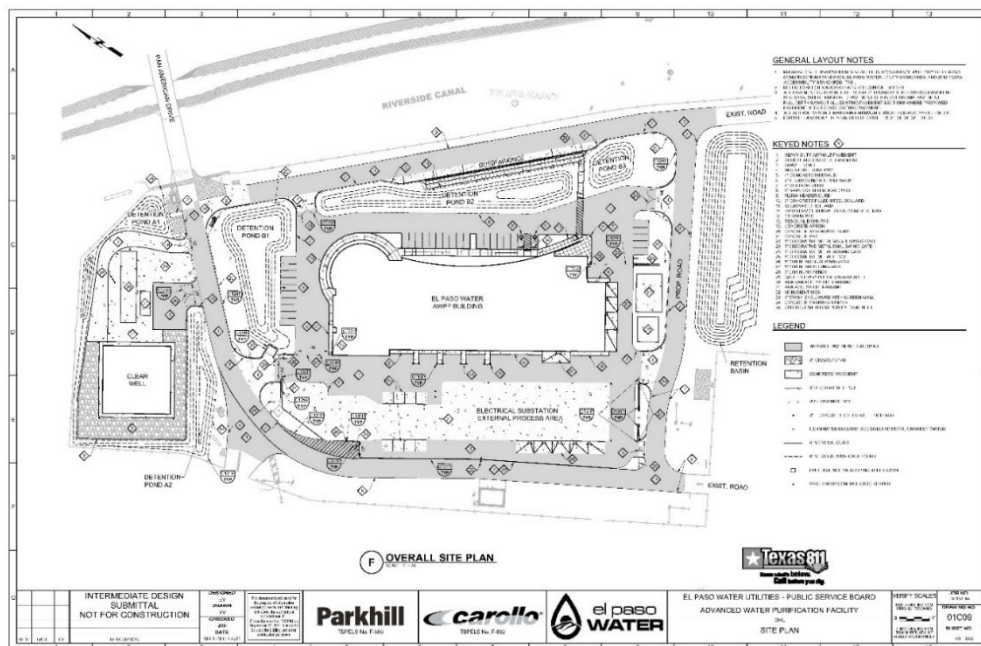
- 270 • Low Pressure Membranes System
 - 271 ○ Open Platform Membrane System.
 - 272 ○ Low Pressure Membrane Feed Pumps.
 - 273 ○ Automatic Backwashing Strainers.
 - 274 ○ Backwash Tank and Pump.
 - 275 ○ Chemical Feed System.
 - 276 ○ Cleaning Systems.
 - 277 ○ Miscellaneous Ancillary Equipment.
- 278 • High Pressure Membranes System
 - 279 ○ High Pressure Membrane Trains.
 - 280 ○ High Pressure Membrane Feed Pumps.
 - 281 ○ Interstage Booster Pumps.
 - 282 ○ High Pressure Membrane Break Tank.
 - 283 ○ Chemical Feed System
 - 284 ○ Cleaning Systems.
 - 285 ○ Miscellaneous Ancillary Equipment.
- 286 • Ultraviolet/Hydrogen Peroxide Advanced Oxidation Process (AOP)
 - 287 ○ UV Reactors.
 - 288 ○ UV AOP Break Tank.
 - 289 ○ UV AOP Feed Pumps.
 - 290 ○ Hydrogen Peroxide Feed System.
- 291 • Granulated Activated Carbon (GAC)
 - 292 ○ GAC Pressure Contactors.
 - 293 ○ GAC Backwashing Facility.
- 294 • Utility Trench throughout Process Area.
- 295 • Administrative Areas including:
 - 296 ○ Offices.
 - 297 ○ Laboratories.
 - 298 ○ Education & Presentation Area
 - 299 ○ Control Room.
 - 300 ○ Server Room.
 - 301 ○ Security Server Room.
 - 302 ○ Research Area.
 - 303 ○ Instrumentation Maintenance Area.

304 Outside of the Main Process Building, the following systems will be built within the project development:

- 305 • Chemical Feed Systems.
 - 306 ○ Exterior Chemical Storage Area with Canopy.
 - 307 ○ Interior Chemical Storage Area.
- 308 • Clear Well Structure.
- 309 • Residuals Basin.
- 310 • Electrical Room.
- 311 • Groundwater Treatment System.
- 312 • High Pressure Pump Station.

313 The site is surrounded by drainage canals on all sides, Pan American Drive to the east, the U.S.-Mexican
 314 border to the west, and Rio Bosque Wetlands Park to the south. Due to nearby commercial/industrial
 315 developments in the area, adequate public infrastructure to support the project already exists and needs only
 316 to be brought to the project site. The entirety of the AWPf will be constructed on applicant-owned property.

317 **Exhibit 9 Currently Proposed Facility Master Plan Layout**



318

319 **2.5.1 Construction of Project Structures and Equipment Installation**

320 The project would be constructed under a Construction Manager at Risk (CMAR) scheme to allow having two
 321 procurement process. The first procurement process, known as GMP 1, will allow EPWater to pre-purchase all
 322 long lead equipment and instrumentation. The second procurement process, GMP 2, will provide EPWater
 323 with the work package for construction. GMP 2 will be used to contract the CMAR to implement the
 324 construction of the project structures and all water treatment processes as shown in **Exhibit 9**. The main
 325 facility building will encompass 57,661 square feet (approximately 381 feet long by 160 feet wide) with a
 326 reinforced concrete floor, insulated concrete wall system that includes metal studs with gypsum boards. The
 327 roof system will include ½-inch plywood, metal studs with thermal insulation, steel beam structure, rigid

328 insulation, cover boards, base flashing, sheathing, and a roof membrane. It also includes outdoor equipment
329 areas. The currently proposed facility master plan layout is shown in **Exhibit 9**.

330 The primary source of process water is from the Bustamante WWTP. Approximately 10 MGD of treated
331 wastewater is planned on being pumped to the Advanced Water Purification Facility through means of a
332 booster pump. At the AWPF, the core treatment train will include microfiltration (low pressure)
333 membranes, reverse osmosis (high pressure) membranes, ultraviolet/hydrogen peroxide advanced
334 oxidation process (UV AOP), granular activated carbon (GAC) for hydrogen peroxide quenching, and
335 chlorine disinfection. The purified water will be stabilized and blended with local groundwater sources to
336 increase the production capacity before it is conveyed from the clearwell to the distribution system by a
337 new on-site high service pump station. The AWPF will be designed to treat approximately 10.7 MGD of
338 effluent, with consideration for a possible future expansion to accommodate an additional 2.6 MGD. The
339 AWPF will need to have operational flexibility; therefore, EPWater wants to be able to run it at a base flow
340 mode of approximately 3.3 MGD during low water demand months. The project includes the construction
341 of the following process units and associated facilities:

- 342 • Microfiltration low pressure membranes
- 343 • Reverse Osmosis high pressure membranes
- 344 • Ultraviolet Disinfection / Advanced Oxidation
- 345 • Granular Activated Carbon
- 346 • Finished Water Stabilization
- 347 • Chemical Storage and Feed
- 348 • Finished Water Storage
- 349 • Greensand Filters
- 350 • AWPF Building

351 The electric power for the plant will be received from a new 2,500 kilovolt-amps (kVA) electrical
352 substation. The electrical substation is planned on the south end of the site and will occupy approximately
353 one acre of ground. In addition to the primary building, site structures and attendant features will include
354 workforce parking, permanent stormwater management, office building, warehouses and solid waste
355 storage building, argon process support equipment, and a diesel generator area with a chimney. The
356 electrical substation and external process area building will be approximately 250 feet by 200 feet, with a
357 ridge height of approximately 27 feet. The building will be a lightweight industrial one-story warehouse
358 type facility with an exterior of insulated reinforced concrete walls. It will have a slab on grade foundation
359 with approximately 22 feet clear interior height.

360 The construction of the project site will sequence through the following successive phases, starting with:

- 361 • Establishment of sedimentation and erosion control measures,
- 362 • Rough grading and clearing,
- 363 • Building pad preparation and construction,
- 364 • Building shell construction,
- 365 • Final grading,
- 366 • Site stabilization and landscaping,
- 367 • Equipment installation, and
- 368 • Testing and validation.

369 General site clearing and grading will occur within the 13-acre limits of disturbance, with minor tree clearing
370 in isolated locations. The building pad preparation will use select fill for base material in slab/foundation
371 construction. Following the slab/foundation construction, the skeletal steel structure will be assembled
372 followed by the building shell. The final phase of building construction includes the installation of the
373 equipment to support the treatment process. Project associated unit processes and piping systems,
374 controls, notching equipment installation, testing, and commissioning of the equipment and facility.

375 After the building shell is constructed, the project site will be landscaped with consideration for aesthetic
376 views from surrounding land uses and facilities. Landscaping enhances aesthetics, and climate-
377 appropriate landscaping/hardscaping will surround the facility.

378 **2.5.2 Project Schedule**

379 General site clearing and construction will begin January 15, 2025, and is expected to be completed in by June
380 2025. Facility construction start is planned for June 2025. Full facility construction and operation is planned for
381 completion by December 2026. Substantial completion is planned for March 31, 2027. **Table 2** provides the
382 key project development milestone dates. The EA timeline is through 2030 to allow for any unanticipated
383 delays. If the project goes beyond this time then the EA will be reevaluated at that time.

384 **Table 2 Key Project Development Milestone Dates**

Key Project Milestones	Date
Complete and submit Issued For Construction (IFC) Package	February 15, 2024
Select Construction Contractor	October 09, 2024
Start site clearing	January 15, 2025
Start facility construction	June 30, 2025
Facility Startup and commissioning	December 31, 2026
Substantial Completion	March 31, 2027

385 **2.5.3 Advanced Water Treatment Summary**

386 The project concept is to treat 10 MGD of effluent from Bustamante WWTP, with an advanced treatment
387 that includes microfiltration, reverse osmosis, ultraviolet/hydrogen peroxide advanced oxidation, granular
388 activated carbon, and chlorine disinfection. The purified water resulting from the advanced water will then
389 be stabilized and blended with local groundwater before it is conveyed from the clearwell and to the
390 distribution system.

391 **3. ENVIRONMENTAL CONSEQUENCES**

392 **3.1 Introduction**

393 In each of the following sections, a specific resource area is addressed with both qualitative and, where
394 applicable, quantitative information to concisely describe the nature and characteristics of the resource
395 that may be affected by the Proposed Project, as well as the potential direct and indirect impacts on that
396 resource from the project given the proposed project controls. A conclusion regarding the significance of
397 impacts is provided for each resource area.

398 In addition, it is Reclamation's practice to include a No Action Alternative in the analysis in order to
399 provide an appropriate basis by which other alternatives are compared. The following sections will
400 therefore also include an analysis of potential environmental conditions in the future without the
401 construction of the facility. No impacts from the No Action Alternative are anticipated to the following
402 resources, including cultural resources, air quality, noise, traffic, aesthetic or visual resources, biological
403 resources, socioeconomics, and health and safety.

404 Section 3.13 (Cumulative Impacts) provides a review of the present and reasonably foreseeable federal and
405 nonfederal actions that may contribute to a cumulative impact when added to the impacts of the project. The
406 impacts of past actions were reviewed and are included as part of the affected environment to establish the
407 current condition of the resource (the baseline condition) that may be affected by the project.

408 **3.2 Environmental Setting**

409 The project site is located in the Chihuahuan Basins and Playas U.S. Environmental Protection Agency
410 (EPA) Level IV Ecoregion within the Chihuahuan Deserts EPA Level III Ecoregion (Griffith et al., 2007).
411 The Chihuahuan Basins and Playas ecoregion includes major basins such as the Hueco, Salt, and
412 Presidio basins which formed during the Basin and Range tectonism when the stretching of the earth's
413 crust resulted in portions of the crust to collapse and produce depressions that filled with sediment over
414 time. Geology in the ecoregion consists of Holocene, Pleistocene, and late Tertiary alluvium and
415 erosional materials from surrounding mountains, including unconsolidated basin deposits, silt, sand, and
416 gravel. Soils are primarily alkaline, silty, and clayey Mollisols, Aridisols, and Entisols (Griffith et al., 2007).

417 Vegetation in the ecoregion is adapted to large diurnal ranges in temperature, low moisture, and high
418 evapotranspiration rates and consists mainly of desert shrubs and grasses like creosotebush (*Larrea*
419 *tridentata*), tarbush (*Flourensia cernua*), fourwing saltbush (*Atriplex canescens*), gyp grama (*Bouteloua*
420 *breviseta*), and alkali sacaton (*Sporobolus airoides*). Riparian areas in the desert have been significantly
421 altered by the late 19th century from high concentrations of cattle in more productive areas near streams.
422 Alien saltcedars (*Tamarix* spp.) and river cane (*Phragmites australis*) have invaded most riparian areas,
423 and use significant amounts of groundwater through evapotranspiration. Eradication efforts for these
424 plants are underway to increase water yield. Land use, particularly grazing, is limited in desert areas due
425 to water scarcity and lack of vegetation. However, limited areas of agriculture occur near El Paso (Hueco
426 Basin), Pecos (Pecos River valley), and Dell City (Salt Basin), where farmers are dependent on
427 groundwater wells to irrigate cropland. Crops produced in these areas consist of cotton, pecans, alfalfa,
428 tomatoes, onions, and chili peppers (Griffith et al., 2007).

429 The region serves as a critical stopover and wintering area for numerous bird species. Migratory and
430 resident birds consist of the greater roadrunner (*Geococcyx californianus*), black-throated sparrow
431 (*Amphispiza bilineata*), scaled quail (), and various raptors. Additionally, several
432 waterfowl species utilize the playas, wetlands, and riparian areas for breeding and migratory purposes
433 (Bryan, 2002). The Chihuahuan Basins and Playas Ecoregion supports a rich reptile community as well.

434 Lizards preferring the shrub desert habitats of this ecoregion include the side-blotched (*Uta*
435 *stansburiana*), Texas horned (*Phrynosoma cornutum*), and little-striped whiptail (*Cnemidophorus*
436 *inornatus*) (Griffith et al., 2007).

437 The main land cover type observed in the project site and surrounding areas consists of sparsely vegetated
438 barren land. Vegetation observed at the site consisted mainly of herbaceous vegetation, such as Bermuda
439 grass (*Cynodon dactylon*), velvet mesquite (*Prosopis velutina*), silverleaf nightshade (*Solanum*
440 *elaeagnifolium*), desert horse-purslane (*Trianthema portulacastrum*), alkali mallow (*Malvella leprosa*), and
441 gray globemallow (*Sphaeralcea incana*). No aquatic features occur within the project site. Outside of the
442 project site area, the Socorro Intercepting Drain Canal runs parallel to the eastern boundary of the project
443 site. Site photographs from the November 29, 2023 site visit are provided in **Appendix C**.

444 **3.3 Cultural Resources**

445 **No Action Alternative:**

446 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
447 plan. The No Action Alternative would not require new ground disturbance, excavation, or construction.
448 The project site would remain undeveloped land within the Bustamante WWTP fenced perimeter.
449 Therefore, the No Action Alternative would have no effect on cultural resources.

450 **Proposed Action:**

451 A historic property, as defined by the National Historic Preservation Act (NHPA) (54 United States Code §
452 300101 et seq.), is any prehistoric or historic district, site, building, structure, or object included in, or
453 eligible for inclusion in, the National Register of Historic Places (NRHP). Section 106 of the NHPA
454 requires federal agencies to consider the impact of their actions on historic properties. Regulations
455 implementing the NHPA (36 CFR Part 800) provide clear steps for agencies to follow regarding
456 consultation with state, local, or tribal government officials in the identification of historic properties
457 potentially affected by their undertaking, assessment of impacts on historic properties, and resolution of
458 adverse effects through avoidance, minimization, or mitigation.

459 On November 3, 2023, Arcadis reviewed the Texas Historic Sites and Archeological Sites Atlas (ATLAS)
460 to locate previously recorded cultural resources and surveys within or near the project. A one-mile buffer
461 (within the United States) was used around the project to identify previously recorded cultural resources
462 and to provide information on the probability of identifying additional cultural resources within the project
463 footprint. The review included known archaeological sites, architectural and historical resources, National
464 Register of Historic Places (NRHP) properties, state antiquities landmarks, cemeteries, and previous
465 cultural resources surveys. For the purposes of the desktop study, the Area of Potential Effect (APE) is
466 considered to be a 13-acre tract southwest of Levee Road, northeast of the Rio Grande, and bisected by
467 Southside Road. The APE is located close to the Texas border with Mexico in Socorro, Texas.

468 The APE is located within the El Paso County Water Improvement District No. 1 National Register District
469 that was listed in 1997. Fifty-nine archaeological sites have been recorded within a mile of the APE with
470 the majority of sites located to the east of Carl Longuemare Road. Fifty-four of the sites are historic-age,
471 one is prehistoric, two have historic and prehistoric components, and no data was available for two sites.
472 One site was determined to be eligible for listing in the NRHP, four sites have undetermined eligibility for
473 NRHP listing, and 54 sites are of undetermined NRHP eligibility. The Socorro Mission Cemetery is
474 located less than a mile east-northeast of the APE.

475 Eight cultural resources investigations have been conducted within a mile of the APE including two large
476 block surveys west of Carl Longuemare Road in closer proximity to the APE in areas with industrial rather
477 than residential and commercial development. Five sites within a mile of the APE were recorded during
478 these two surveys. Site density west of Carl Longuemare Road is likely more indicative of expectations for

479 the discovery of cultural resources within the APE than the residential and commercial area where a large
480 number of historic-age structures are located further to the east.

481 Based on the ATLAS review, there are no cultural resources located within the APE. However, because
482 the APE has not been surveyed for cultural resources archaeological investigation may be needed. If new
483 above ground components are to be constructed, impacts to the viewshed will need to be evaluated due
484 to the location of the APE within a National Register District. The 1875, 1888, and 1921 Texas General
485 Land Office maps for El Paso County were also reviewed, along with United States Geological Survey
486 topographic maps and aerial photographs. This imagery depicts the Desktop Study Area as largely
487 undeveloped until the early twentieth century. From then until the current day, the Desktop Study Area
488 has been primarily used as agricultural land. Even though the Desktop Study Area has remained rural,
489 the immediacy of the Rio Grande along with the presence of NRHP-eligible sites nearby indicates a
490 moderate to high probability for identifying unknown cultural resources within the APE.

491 Consultation with the Texas Historical Commission (THC), which is the designated State Historic
492 Preservation Office (SHPO), is currently being conducted and concurrence with the conclusions of the
493 Phase I investigation will be included in this EA upon receipt.

494 In the event that cultural resources (such as human remains, lithics, pottery, remnants of older
495 construction) are discovered during the project, work would cease in the vicinity of the discovery, and the
496 Office of the State Archaeologist would be notified. A qualified archaeologist or a designated
497 representative would evaluate any such discovery and, in consultation with the THC/SHPO, implement
498 the appropriate measures before construction activities would resume.

499 Because of the absence of adverse impacts on cultural resources within and surrounding the project site,
500 and due to the controls that are in place in the event of an unanticipated discovery of such materials, the
501 project would have no adverse impacts on cultural resources. Consequently, project-related impacts on
502 cultural resources would not be significant.

503 **3.3.1 Native American Interests**

504 In accordance with the NHPA Section 106 historic and archeological review process, Reclamation will
505 send a request to applicable separate Federally Recognized Tribes for information on nearby cultural
506 resources and for any comments or concerns they had on the potential for those resources to be affected
507 by construction of the proposed facility at the Site. Responses and/or concurrence with the project plan
508 will be included in this EA upon receipt.

509 Because of the low likelihood of traditional cultural properties occurring within the project site as
510 evidenced by current Reclamation tribal correspondence, paired with current assessment of the project
511 site with SHPO concurrence (**Appendix D**), the disturbed nature of the site, and the controls in place in
512 the event of an unanticipated discovery of cultural resource materials, impacts on cultural resources—
513 including Native American interests—as a result of the project would not be significant.

514 **3.4 Water Resources**

515 **3.4.1 Wetlands and Streams**

516 **No Action Alternative:**

517 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
518 plan. The No Action Alternative would not require new ground disturbance, excavation, or construction.
519 The project site would remain undeveloped land within the Bustamante WWTP fenced perimeter.
520 Additionally, no wetlands or streams were identified within the proposed project footprint. Therefore, the
521 No Action Alternative would have no effect on wetlands and streams.

522 **Proposed Action:**

523 A preliminary desktop assessment of wetlands and waterbodies was conducted for the project site to evaluate
524 the potential presence of jurisdictional Waters of the U.S. or other regulated/protected resources. Review of
525 the National Wetlands Inventory (NWI) and National Hydrography Dataset (NHD) map did not identify any
526 potential wetlands, streams, or natural surface waters within the project site. However, a series of manmade
527 surface drainage ditch canals were identified by the NHD adjacent to the project site (**Figure 4**). These ditches
528 were classified by the NWI as R4SBCx, which translates to Riverine, Intermittent, Streambed, Seasonally
529 Flooded, Excavated; R4SBAx, which translates to Riverine, Intermittent, Streambed, Temporary Flooded,
530 Excavated; and R5UBFx, which translates to Riverine, Unknown Perennial, Unconsolidated Bottom, Semi-
531 permanently Flooded, and Excavated, and are considered surface channels that were excavated by humans
532 and the hydraulic flow regime is undetermined. The Rio Grande occurs approximately 2,000 feet west of the
533 project site (Cowardin et al., 1979; USGS, 2023; USFWS, 2023a).

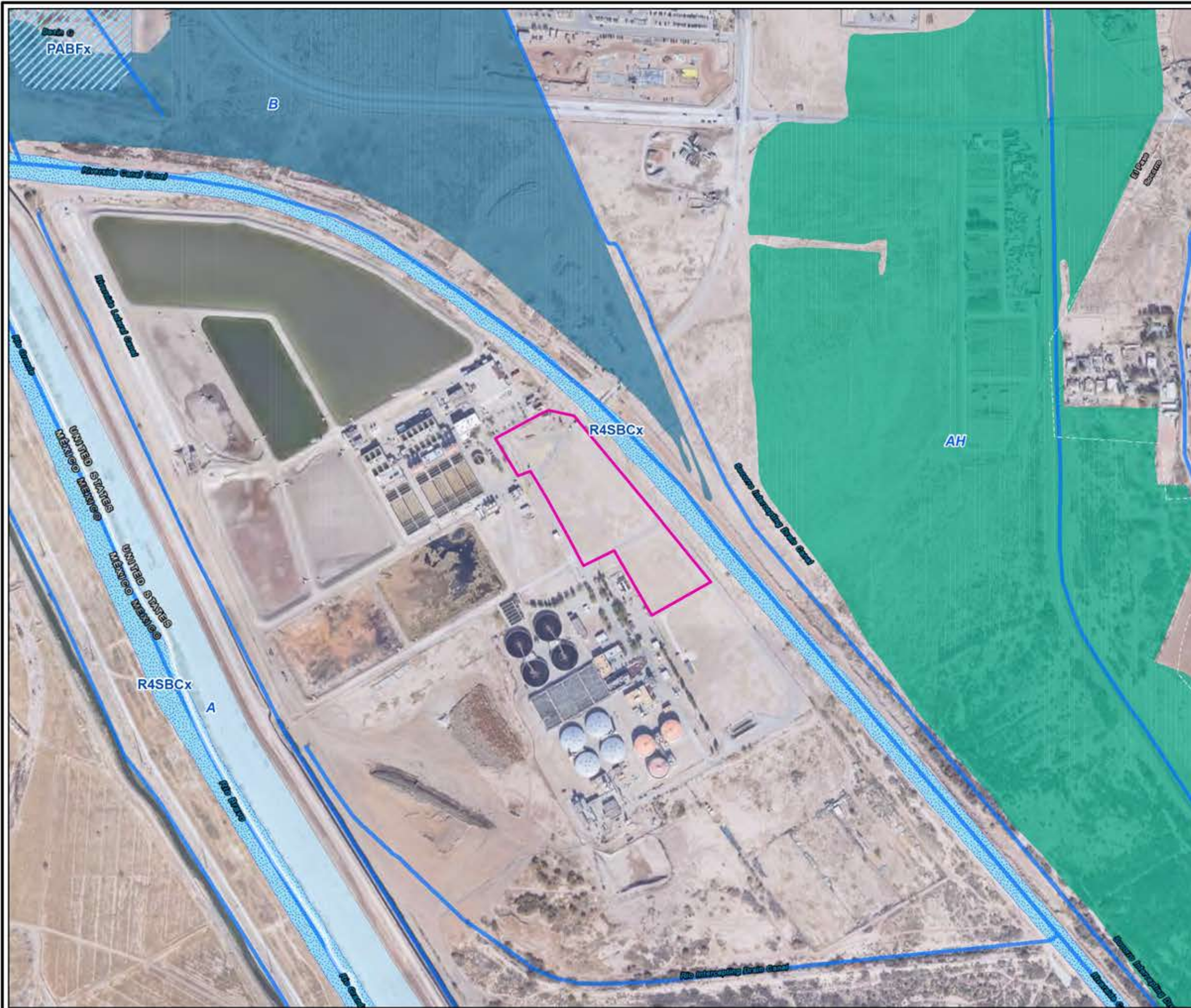
534 Following the completion of the desktop assessment, a site visit was conducted on November 29, 2023 to
535 further identify and delineate surface water resources and potentially jurisdictional wetlands and stream
536 features. A wetland delineation was completed within the project area following the methods described in
537 the USACE 1987 *Wetlands Delineation Manual* (Environmental Laboratory, 1987). These methods for
538 delineating wetlands require that, under normal circumstances, an area meet three criteria to be
539 designated as a jurisdictional wetland. The criteria are: 1) the prevalence of hydrophytic vegetation, 2) the
540 presence of hydric soils, and 3) the presence of wetland hydrology. Additional technical guidance for
541 delineating wetlands specific to this region are provided in the *Regional Supplement to the Corps of
542 Engineers Wetland Delineation Manual: Great Plains, Version 2.0* (USACE, 2010).

543 During the November 29, 2023 site visit, it was determined that no water features were present at the
544 project site. The assessment involved a thorough visual inspection of the site, along with a study of the
545 site's topography and aerial imagery. Since no aquatic features were identified during the site visit, a
546 delineation figure was not prepared. Instead, a figure detailing general site observations was prepared
547 (**Figure 5**), and the details of the observations are described in Section 3.9.2.

548 A Stormwater Pollution Prevention Plan (SWPPP) may not be required for the project due to the lack of
549 onsite aquatic features and/or offsite aquatic receptor sites. However, once construction plans are
550 complete, a SWPPP will be prepared for the project site, as needed, and will conform to all applicable
551 water quality standards. The SWPPP will minimize potential impacts on wetlands within the project site
552 and will be implemented during all phases of construction, as applicable. Further, a National Pollutant
553 Discharge Elimination System will be obtained for the project via the Texas Pollutant Discharge
554 Elimination System, if necessary, to control potential discharges to surface waters.

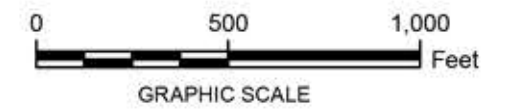
555 To minimize potential impacts to offsite surface waters and wetlands as a result of project construction, a
556 Soil Erosion and Sedimentation Control (SESC) Plan will also be developed by EPWater. The SESC would
557 be integrated with the SWPPP and will provide short-term and long-term site stabilization measures that will
558 prevent disturbed and exposed soils from washing (or blowing) offsite and/or into other offsite surface water
559 features. Controls that will be implemented to minimize impacts would include items such as installing a silt
560 fence around the perimeter of the area that will be disturbed by the project; installing straw wattles and
561 check-dams for surface water velocity control; replanting disturbed areas with an appropriate seed mix for
562 quick germination and suitability to the local climate, installing erosion control matting, where needed,
563 conducting routine monitoring; and ensuring water quality permit compliance. Once project construction is
564 completed, EPWater will properly landscape and stabilize the site for permanent SESC.

565 Because the project does not support any state or federally regulated wetlands, streams, or other surface
566 waters, there would be no impacts from the project on these resources.



LEGEND:

- NHD STREAM
- PROJECT LOCATION
- NWI WETLAND TYPE
- FRESHWATER POND
- RIVERINE
- FEMA FLOOD ZONE TYPE
- A
- AH
- B

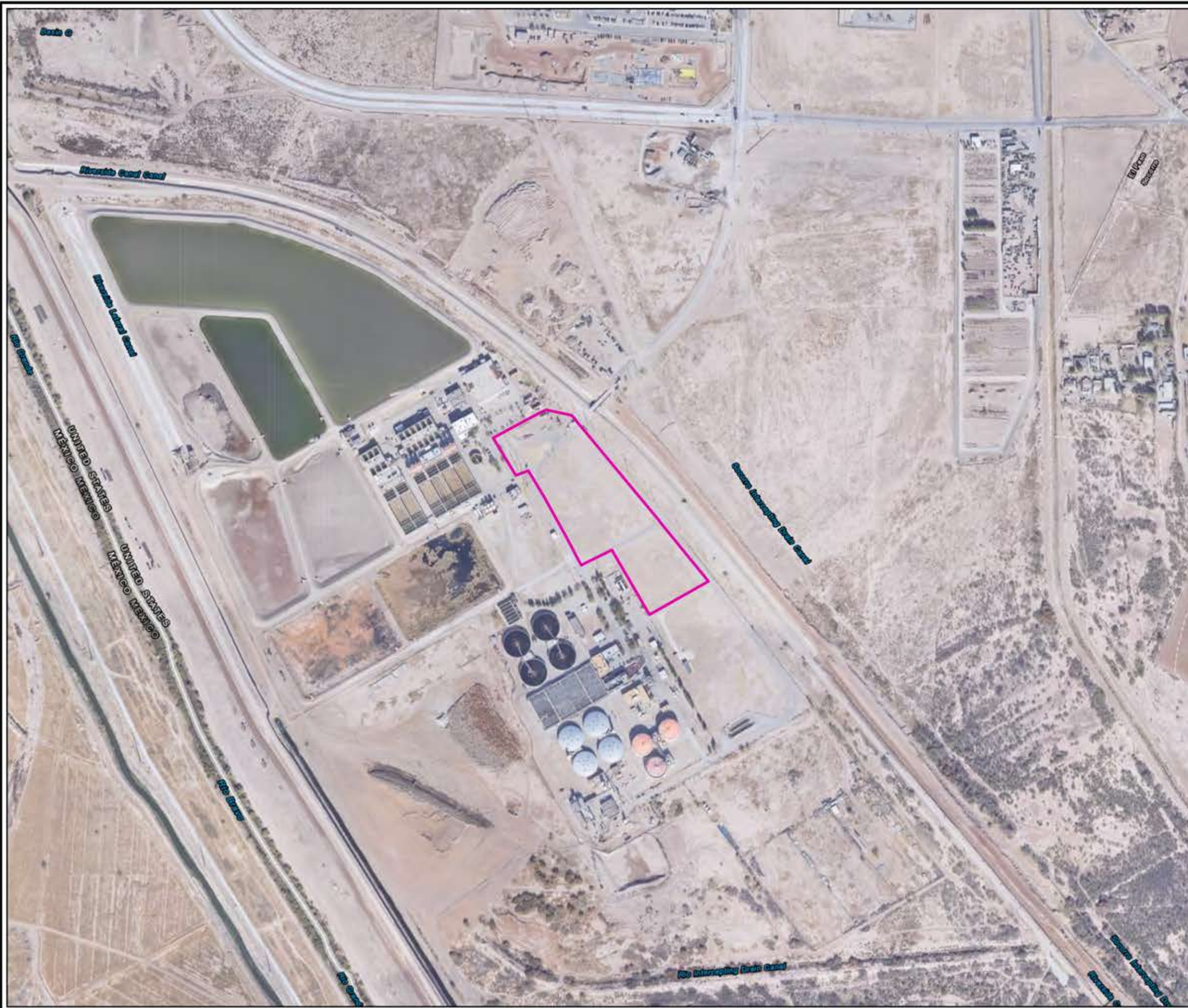


NOTES:

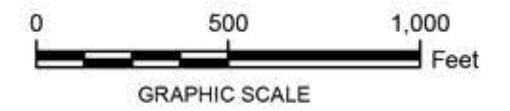
1. MARCH 2020 IMAGERY PROVIDED BY GOOGLE EARTH PRO.
2. NHD STREAM DATA OBTAINED FROM THE TEXAS NATURAL RESOURCES INFORMATION SYSTEM (TNRIS) AT: [HTTPS://TNRIS.ORG](https://tnris.org)
3. NATIONAL WETLANDS INVENTORY (NWI) WETLAND DATA OBTAINED FROM THE U.S. FISH & WILDLIFE SERVICE AT: [HTTPS://WWW.FWS.GOV](https://www.fws.gov)
4. FLOOD HAZARD DATA OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER AT: [HTTPS://MSC.FEMA.GOV](https://msc.fema.gov)

EL PASO WATER ADVANCED WATER
PURIFICATION FACILITY PROJECT
EL PASO, TEXAS

SURFACE WATER RESOURCES MAP



LEGEND:
 PROJECT LOCATION



NOTE:
 1. MARCH 2020 IMAGERY PROVIDED BY GOOGLE EARTH PRO.

EL PASO WATER ADVANCED WATER
 PURIFICATION FACILITY PROJECT
 EL PASO, TEXAS

FIELD SURFACE WATER
 DELINEATION MAP

569 **3.4.2 Groundwater and Surface Water**

570 **No Action Alternative:**

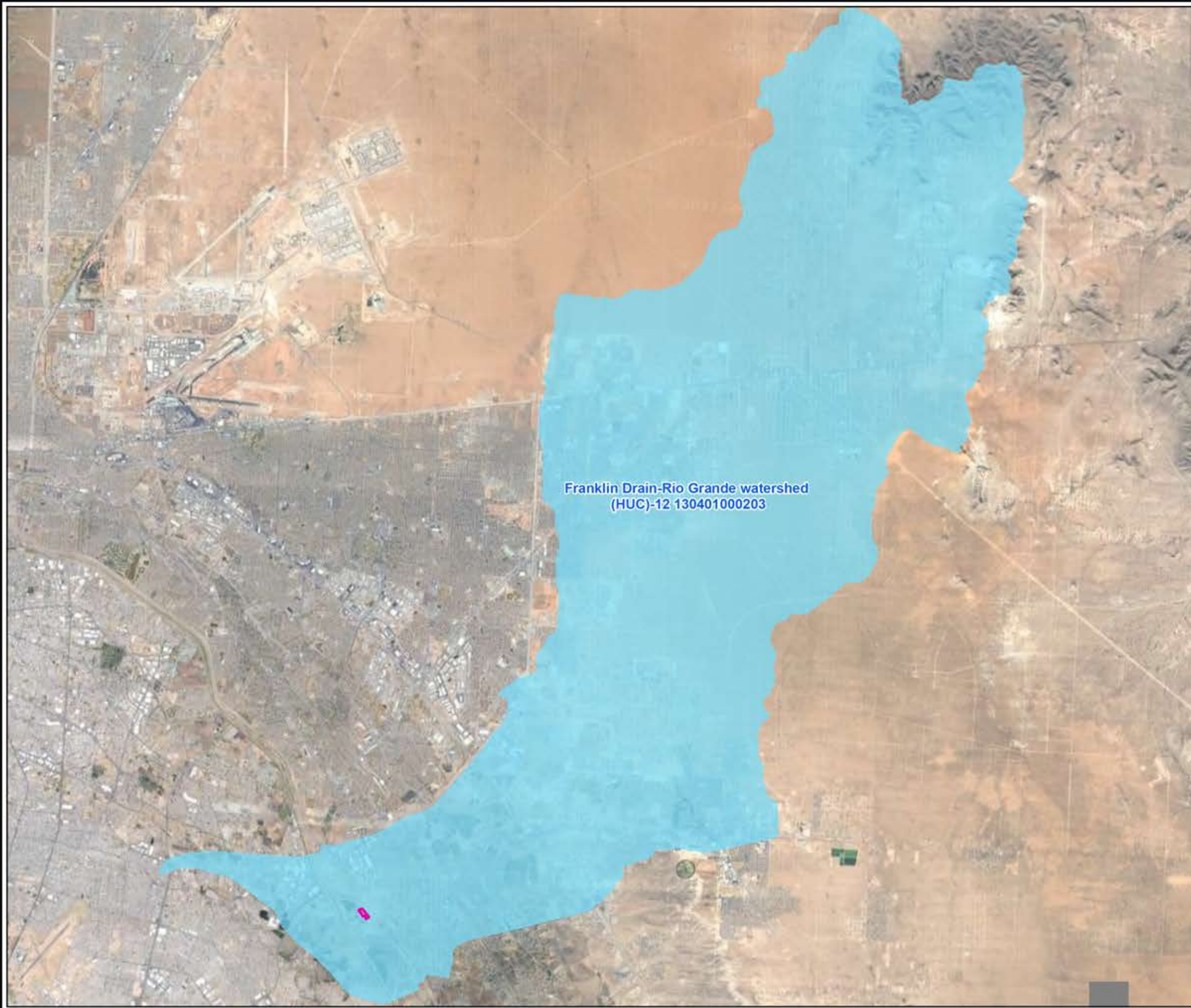
571 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
572 plan. A short-term effect of the No Action alternative would be a negligible reduction in stormwater runoff
573 from avoiding construction of the Proposed Action. In the long-term, however, significant negative impacts
574 to groundwater and surface water resources could occur from the No Action Alternative. If the
575 Bustamante WWTP continues to operate under the current plan, the demand for water will continue to
576 grow under the continuing drought conditions, which would result in an increased need for groundwater
577 pumping, thereby depleting the existing aquifers. Without implementation of the Proposed Action to
578 handle the forecasted increase in water demand, the resulting scarcity of water would have detrimental
579 effects on both the human and natural environment. Water scarcity can trigger and intensify
580 desertification by affecting soil quality, structure, moisture levels, and organic matter content. These
581 changes can impede plant growth and reduce habitat for wildlife. Changes to soil quality from water
582 scarcity can also be detrimental to agriculture by limiting the productivity of crops.

583 **Proposed Action:**

584 The project area is located entirely within the Franklin Drain-Rio Grande watershed (Hydrologic Unit Code
585 (HUC)-12 130401000203) within the Rio Grande region and has a drainage area of 72,904 acres, which
586 flows into the Gulf of Mexico (**Figure 6**). The project site encompasses 13 acres of zoned M2 – Heavy
587 Manufacturing land at the southwest portion of the Franklin Drain-Rio Grande watershed (City of El Paso,
588 2023). Landscape mapping identified desert wash grassland, riparian shrubland, and urban low intensity
589 use within the project area (Elliott et al., 2014). Approximately eight acres of the project site would be
590 converted to impervious surfaces, which would cause changes to stormwater runoff. However, the
591 changes in runoff are anticipated to be minimal due to the current surrounding land use. Further, the
592 project site can connect to an established storm drain system, which would facilitate proper surface
593 drainage management when paired with the proposed on-site stormwater detention pond construction.

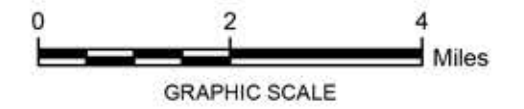
594 The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel
595 #4802140050B (effective October 14, 1982) for El Paso County shows the project site is entirely within an
596 area of minimal flood risk (**Figure 4**). There are existing drainages (detention ponds and drainage canals)
597 around the project area to divert stormwater flow, thereby further reducing any flood risks. During
598 operation, the project would obtain its water from the existing wastewater treatment system for advanced
599 filtering and redistribution. The project does not anticipate using groundwater, nor having any discharges
600 that would adversely affect groundwater.

601 Based on the current plans for municipal water use, the absence of substantial floodplains, anticipated
602 stormwater control measures, and adherence to water quality permits during construction and operation,
603 the impacts from the project on surface water, floodplains, and groundwater would not be significant.



LEGEND:

- PROJECT LOCATION
- FRANKLIN DRAIN-RIO GRANDE WATERSHED



- NOTES:
1. MARCH 2020 IMAGERY PROVIDED BY GOOGLE EARTH PRO.
 2. WATERSHED DATA OBTAINED FROM THE TEXAS NATURAL RESOURCES INFORMATION SYSTEM (TNRIS) AT: [HTTPS://TNRIS.ORG](https://tnris.org)

EL PASO WATER ADVANCED WATER PURIFICATION FACILITY PROJECT
EL PASO, TEXAS

WATERSHED MAP

605 **3.5 Air Quality**

606 **No Action Alternative:**

607 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
608 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
609 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
610 perimeter. Therefore, the No Action Alternative would have no effect on air quality.

611 **Proposed Action:**

612 The project is located in El Paso County, Texas, which has been designated as a nonattainment area for
613 ozone standards under the National Ambient Air Quality Standards (NAAQS), as of December 30, 2021.
614 The local air quality management in the region, which includes El Paso County, is in attainment with most
615 NAAQS for criteria pollutants, which include sulfur dioxide, nitrogen dioxides, and particulate matter less
616 than 10 microns in diameter (PM₁₀), lead, and carbon monoxide (CO) (TCEQ, 2023). The project will be
617 considered a new source of emissions and EPWater will need to undergo New Source Review (NSR)
618 permitting. A new source must meet one of the three following types of NSR permitting requirements:

- 619 • Prevention of Significant Deterioration (PSD): permit for new major sources or a major source
620 making a major modification in areas that meet the NAAQS.
- 621 • Nonattainment: permit for new major sources or major sources making major modification in
622 areas that do not meet one or more of the NAAQS (EPA, 2022).
- 623 • Minor source: permit for a stationary source which does not require a PSD or nonattainment NSR
624 permit. The purpose of the minor source NSR permit is to prevent the construction of sources that
625 would interfere with attainment or maintenance of a NAAQS or violate the control strategy in
626 nonattainment areas. Also, minor NSR permits often contain permit conditions to limit the sources
627 emissions to avoid PSD or nonattainment NSR (EPA, 2022).
- 628 • Air Permits By Rule (PBR): State air authorizations for activities that produce more than a de
629 minimis level of emissions but less than other NSR permitting options.

630 EPWater has applied for a PBR, which is being reviewed by the Texas Commission on Environmental Quality
631 (TCEQ) as required by 30 Texas Administrative Code Chapter 106. To qualify for a PBR, a facility cannot
632 exceed 250 tons per year (TPY) of CO, 25 TPY of volatile organic compounds (VOC), 15 TPY of PM₁₀, 10
633 TPY of PM_{2.5}, or 25 TPY of any air contaminant except water, nitrogen, ethane, hydrogen, and oxygen.
634 Emissions from the AWPF will not exceed these general requirements and is therefore eligible for a PBR.

635 EPWater has also applied for an Air Quality Standard Permit for Electric Generating Units. Standard Air
636 Permits are for specific well-characterized classes of facilities. The AWPF facility will include a backup
637 generator for which the permit would cover. **Table 3** outlines the pollutants and approximate amounts that
638 the generator will emit each year.

639 The project does not have the potential to emit pollutants above any of the major source thresholds, and
640 the project is not considered a major source of air contamination subject to Title V requirements, nor is it
641 considered a major source under Part 18 (PSD). The project would not cause significant emissions
642 increase and/or a significant net emissions increase.

643 **Table 3 Project Potential to Emit Air Pollutants (With Controls)**

Pollutant	Proposed Emissions (tons per Year)
PM ₁₀	<0.01
PM _{2.5}	<0.01
NO _x	14.63
SO ₂	4.95
VOC	7.31
CO	20.45

644 Abbreviations/Acronyms:
 645 PM 2.5 = particulate matter with diameters 2.5 microns and smaller
 646 PM 10 = particulate matter with diameters 10 microns and smaller
 647 VOC = volatile organic compounds
 648 NO_x = nitrogen oxides
 649 SO₂ = sulfur dioxide
 650 CO= carbon monoxide

651 Exhaust from construction vehicles and other equipment used during construction of the project may
 652 result in localized, short-term increases in CO and NO_x emissions. Emissions of airborne dust (PM_{2.5} and
 653 PM₁₀) would also occur from excavation and vehicle traffic on unpaved surfaces. Fugitive dust generation
 654 can be mitigated by spraying water on soil surfaces and installing stabilized rock construction entrances.
 655 Once construction of the project is complete, any emissions from the AWPf would be equivalent to the
 656 existing functioning plant.

657 Additionally, the project would not contribute to ozone pollution. The AWPf will involve a treatment train
 658 of membrane filtration, reverse osmosis, advanced oxidation with ultraviolet light and hydrogen peroxide,
 659 granular activated carbon for peroxide quenching, and chlorine disinfection (Carollo Engineers, 2024).
 660 None of these processes are known to produce ozone. In addition, none of these processes would
 661 contribute to the depletion of the ozone layer. While chlorine atoms are known to destroy ozone
 662 molecules, the chlorine compounds used to treat water are too reactive and unstable to diffuse up to the
 663 ozone layer (EPA, 2021).

664 Because of the location of the project site and existing air quality conditions, the amount of anticipated air
 665 emissions, and the controls that would be implemented during project construction and operation, impacts
 666 on air quality as a result of the Proposed Project would not be significant.

667 **3.6 Noise**

668 **No Action Alternative:**

669 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
 670 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
 671 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
 672 perimeter. Therefore, the No Action Alternative would have no effect on noise.

673 **Proposed Action:**

674 Sound is a physical phenomenon consisting of pressure fluctuations and resultant sound waves that
 675 travel through other physical media, such as air, and are received by the human ear. Noise is typically
 676 considered objective or subjective unwanted sound that interferes with normal activities (e.g., sleep
 677 patterns, conversation, and concentration) or otherwise diminishes the quality or aesthetics of the
 678 environment. It may be intermittent or continuous, steady, or impulsive, stationary or transient. In addition
 679 to normal disruptive noise environments, there are also special noise sensitivities with respect to certain

680 resources such as national parks, wilderness areas, and other public spaces that are designed for public
 681 use and relaxation.

682 According to the Occupational Safety and Health Administration (OSHA, 1996), the threshold of human
 683 hearing discomfort or pain is approximately 120 decibels (dB). However, noise levels are typically
 684 measured in dBA, which are decibels adjusted to reflect the ear's response to different frequencies of
 685 sound (OSHA, 2023). Sudden, brief impulse sounds, like many of those shown at 120 dB or greater, are
 686 often described in dB. Weighted decibels are better for interpreting noise impacts associated with low-
 687 frequency sound due to the human ear being less sensitive in this range.

688 **Table 4** demonstrates relative noise levels, measured in dBA, of common sounds in the environment.
 689 The human ear's threshold of perceptible sound level change is 3 dBA; 5 dBA is clearly noticeable to the
 690 human ear, and 10 dBA is perceived as a doubling of sound.

691 **Table 4 Sound Levels of Common Noises**

Common Noise Source	Sound Level (dBA)
Threshold of pain	140
Jet taking off (200 feet away)	130
Operating heavy equipment	120
Night club (with music)	110
Construction site	100
Boiler room	90
Freight train (100 feet away)	80
Classroom chatter	70
Conversation (3 feet away)	60
Urban residence	50
Soft whisper (5 feet away)	40
North Rim of Grand Canyon	30
Silent study room	20
Threshold of human hearing (1,000 Hertz)	0

692 **3.6.1 Existing Conditions**

693 According to the City of El Paso Planning Department Zoning Map, the project location is classified as M-
 694 2 – Heavy Manufacturing, with substantial industrial development and agriculture in the surrounding
 695 areas. Neighboring properties consist of a water utility company, wastewater treatment plants, a trucking
 696 company, various light industrial businesses, agricultural land, and a few residences. Existing sources of
 697 noise at the project site include vehicular traffic, railroad use, and farm machinery.

698 **3.6.2 New Construction Impacts**

699 The project would generate temporary noise during construction from heavy machinery such as
 700 bulldozers, graders, excavators, dump trucks, and cement trucks, as well as smaller tools such as jack
 701 hammers and nail guns. Noise and sound levels would be typical of new construction activities and would
 702 be intermittent and temporary. The project would manage noise using best management practices
 703 (BMPs), such as limiting outdoor construction activities to daylight working hours (approximately 7 a.m. to
 704 8 p.m.), where possible, and complying with local noise ordinances.

705 Several residences occur within one mile of the project site, in the neighboring town of Socorro. These
 706 residences could experience minor, short-term adverse impacts from noise generated during construction

707 of the proposed facility. The residences could also experience permanent increases in traffic noise from
708 commuting workers and trucks traveling to the facility.

709 Facility operations would result in no adverse long-term noise impacts other than those from increased
710 vehicular traffic from commuting workers and trucks receiving and shipping materials. Industrial processes
711 performed at the facility would not add to ambient noise levels, as the project is within industrial and
712 agricultural lands and all manufacturing processes would be conducted within an enclosed building.

713 Because of controls that would be implemented during construction and the nature of the area
714 surrounding the project, impacts from noise as a result of the proposed project would not be significant.

715 **3.7 Traffic and Transportation**

716 ***No Action Alternative:***

717 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
718 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
719 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
720 perimeter. Therefore, the No Action Alternative would have no effect on traffic or transportation.

721 ***Proposed Action:***

722 The project site will be accessed from Pan American Drive on the eastern side of the facility, which
723 connects directly to Texas-375 (TX-375) Loop. During construction, marginal increases in traffic from
724 construction workers and material delivery personnel would impact traffic flow on TX-375 and Pan
725 American Drive. The anticipated operations of the factory will include approximately 18 full-time
726 employees, with employees working 8-hour shifts. Minimal traffic would occur from people traveling to the
727 site. However, EPWater would implement a Traffic Control Plan to ensure safety during various phases of
728 project construction. As the site plan is further developed, EPWater and the Texas Department of
729 Transportation (TxDOT) would work collaboratively to ensure traffic pattern changes are aligned with
730 project activities and that appropriate signage and controls are in place to uphold traffic safety, including a
731 controlled turning lane at the intersection to mitigate traffic to and from the project site. Pavement
732 markings needed at internal intersections would be updated to avoid anticipated vehicle conflicts due to
733 sight restrictions and turning envelopes of both passenger vehicles and large trucks.

734 During construction, daily traffic would increase on the local roads leading to the project area as
735 equipment and materials are transported into the area. At the peak of construction, up to 80 construction
736 workers would travel to the proposed project area daily. The additional construction-related traffic would
737 result in increased noise, dust, and occasional traffic delays and/or periodic congestion during the
738 construction phase. The construction-related traffic would further deteriorate traffic operations at the
739 intersection and surrounding roadway network. Some construction workers may carpool to and from the
740 project area; however, as a conservative approach to the analyses, each worker was assumed to travel in
741 a separate vehicle. Some of the construction workers are anticipated to come from out of town; therefore,
742 they would require some form of housing in the local area. The anticipated housing locations would
743 determine the distribution of construction-generated traffic into and out of the site.

744 Based on the measures incorporated as part of the project (i.e., accounting for increases in traffic from
745 construction and operation by installing appropriate signage and controls, managing traffic flows at
746 intersections with pavement markings, and implementing traffic control plans), the impacts from the
747 project on transportation are not anticipated to be significant.

748 3.8 Aesthetic and Visual Resources

749 **No Action Alternative:**

750 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
751 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
752 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
753 perimeter. Therefore, the No Action Alternative would have no effect on aesthetic or visual resources.

754 **Proposed Action:**

755 Aesthetic resources are the natural and visual features of the landscape that can be seen or experienced
756 and that contribute to the public's appreciation of the environment. The value of these resources is often
757 determined by contrasts exhibited by the natural environment (e.g., geology, hydrology, vegetation, and
758 wildlife), as well as man-made features, and the aesthetic value of an area is a measure of its visual
759 character and quality combined with the viewer's response to the area. Visual resources or aesthetic
760 impacts are generally defined in terms of a project's physical characteristics and potential visibility and the
761 extent to which the project's presence would change the perceived visual character and quality of the
762 environment in which it is located.

763 The project site is zoned as Heavy Manufacturing and comprises the existing Bustamante WWTP
764 surrounded by industrial commercial development, undeveloped land, agricultural fields, a recreational
765 use, and limited residential development (City of El Paso, 2023). The project site is located on 13 acres
766 and will include facilities, parking lots, and other attendant features. Views to the immediate south, west,
767 north, and east are of recreational parks, or other commercial/industrial facilities with no residential
768 properties within 0.30 mile of the project site. Construction of the project would result in permanent visual
769 changes, namely, the construction of the proposed new buildings on what is currently and undeveloped
770 space within an existing Bustamante WWTP. However, the new facility would have an appearance
771 consistent with the existing landscape in the area. Operations at the new facility may result in minor
772 increases in nighttime light, but proper facility planning and the use of Dark Skies Initiatives (where
773 applicable) will help reduce light pollution. Once construction is complete, the reclamation of disturbed
774 areas would remove unnecessary visual impacts.

775 Because of the design of the project, the presence of the existing WWTP facility, and the industrial nature
776 of the surrounding area, impacts on aesthetic and visual resources as a result of the proposed project
777 would not be significant.

778 3.9 Biological Resources and Threatened and Endangered Species

779 **No Action Alternative:**

780 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
781 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
782 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
783 perimeter. Therefore, the No Action Alternative would have no effect on vegetation or wildlife.

784 **Proposed Action:**

785 Biological resources include local and regional flora, fauna, and their associated habitats. The project
786 occurs in the Chihuahuan Basins and Playas EPA Level IV Ecoregion and the Chihuahuan Deserts EPA
787 Level III Ecoregion (Griffith et al., 2007). The Chihuahuan Desert consists of basin and range topography
788 with broad desert valleys bordered by fault-block mountains and mainly dominated by arid shrubland and
789 semi-desert grassland. As elevation increases, there is an increased prevalence of oak, juniper, and
790 pinyon pine woodland.

791 The closed-basin topography of the region supports the development of playa lakes and dune fields. Soils
 792 in the playas and basin floors are typically saline and alkaline with areas of salt flats, dunes, and
 793 windblown sand. Soils found in lower slopes and run-in areas are typically characterized as gypsum and
 794 alkaline. The basins receive less than 14 inches of rain per year, making them the hottest and driest
 795 habitats in Texas. Therefore, the basins and playas are largely dominated by desert flora like creosote
 796 bush, tarbush, fourwing saltbush, and alkali sacaton (*Sporobolus airoides*).

797 The following discussion of biological resources reviews impacts on general vegetation; general wildlife,
 798 including Texas Parks and Wildlife (TPWD) state-listed threatened and endangered (T&E) species;
 799 migratory birds protected under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act;
 800 and T&E species protected under the Endangered Species Act (ESA). The affected environment and
 801 potential Project-related impacts on these resources are described in the sections below.

802 **3.9.1 Vegetation and Habitat**

803 Available biological habitat is limited at the project site, and the land that would be disturbed by the
 804 project is characterized as undeveloped land within an existing WWTP that supports very little vegetative
 805 groundcover. **Table 5** provides each habitat type within the project area and the approximate acreage of
 806 impact from project construction.

807 **Table 5 Description of Vegetation/Habitat and Proposed Project-related Impacts**

Habitat Type	Permanent Impacts (Acres)	Temporary Construction Impacts (Acres)
Undeveloped Vacant Land	13 acres	0 acres

808 Habitat in the project area is limited and frequently impacted by vehicle traffic and other disturbance from
 809 facility maintenance practices. Nearly all areas are unvegetated and do not support high quality wildlife habitat.

810 No wetlands were identified within the project site itself. Small agricultural fields exist in the general area, with
 811 some light industrial and residential areas to the north and east. Project site connectivity with intact natural
 812 habitats is minimal. A canal ditch occurs adjacent to the project site and runs parallel to the eastern boundary
 813 of the project site. The closest significant block of intact natural habitat is the Rio Bosque Wetlands Park, a City
 814 of El Paso-managed park with wetlands and riverside forests located to the south/southeast of the project Site.
 815 However, the project site is separated from the park by a fence line, canal ditch, and a small area of
 816 undeveloped land, which likely limits wildlife access from the park to the project site.

817 **3.9.2 Wildlife**

818 Common wildlife in west Texas includes mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus*
 819 *virginianus*), pronghorn (*Antilocapra americana*), black-tailed jackrabbit (*Lepus californicus*), and javelina
 820 (*Tayassu tajacu*). The Chihuahuan Desert harbors the largest remaining black-tailed prairie dog complex
 821 on the continent, and the only population of the endemic Mexican prairie dog. The region also serves as
 822 wintering grounds for many North American Great Plains birds, including species such as the mountain
 823 plover (*Charadrius montanus*), ferruginous hawk (*Buteo regalis*), and Baird's sparrow (*Centronyx bairdii*).
 824 Migratory birds from the neotropical zone frequently utilize riparian habitats along the Rio Grande (NPS,
 825 2022). Reptile species, such as the Texas horned lizard, side-blotched, and little-striped whiptail inhabit
 826 shrub-desert habitats, as well as a variety of rattlesnakes (*Crotalus* sp.) and copperheads (*Agkistrodon*
 827 sp.). Looser alluvial soils, and eroded caliche soils, often provide good burrowing habitat for small
 828 mammals and herpetofauna such as Texas tortoise (*Gopherus berlandieri*) and Mexican burrowing toad
 829 (*Rhinophrynus dorsalis*) (TPWD, 2023a).

830 No active or significant signs of wildlife were observed on-site during the November 29, 2023 site visit
831 (**Figure 5**). Two potential rodent burrows were observed on site, but both burrows appeared to be old and
832 inactive (**Appendix C - Photos 7 and 8**). In addition, several surface depressions of various size were
833 identified at the project site (**Appendix C - Photos 9-12**); however, it is unclear whether the observed
834 depressions occurred due to the collapse of previous inactive burrows over time, or due to other erosional
835 processes. Other potential observations of wildlife include canid footprints located on the southwestern
836 boundary of the project site. It is unclear whether the observed footprints belong to a coyote (*Canis latrans*),
837 a house pet, or a feral dog (**Appendix C - Photo 13**). Red harvester ants (*Pogonomyrmex barbatus*) were
838 also observed at the site and are a prey source for the Texas horned lizard (**Appendix C - Photo 14**).
839 However, no Texas horned lizards were observed in the project area during the time of survey. Lastly,
840 multiple occurrences of scat were observed in the project area. The scat likely occurred from potential
841 stopovers from Canada geese (*Branta canadensis*) that would not be impacted by project activities.

842 **3.9.3 Threatened and Endangered Species**

843 Congress passed the ESA in 1973, expressing the need and esthetic, ecological, educational,
844 recreational, and scientific value of at-risk biological species to our environment. It further expressed
845 concern that many of our nation's native plants and animals were in danger of becoming extinct. The ESA
846 is administered by the United States Fish and Wildlife Service (USFWS) and the Commerce Department's
847 National Marine Fisheries Service (NMFS). The purpose of the ESA is to protect and recover imperiled
848 species and the ecosystems upon which they depend (USFWS, 2023b). The USFWS has primary
849 responsibility for terrestrial and freshwater organisms, while the responsibilities of the NMFS are mainly
850 marine wildlife such as whales and anadromous fish (e.g., salmon).

851 Under the ESA, species may be listed as either threatened or endangered (aka, T&E). Endangered
852 means a species is in danger of extinction throughout all or a significant portion of its range, while the
853 threatened designation means a species is likely to become endangered within the foreseeable future. All
854 species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. As
855 outlined in the ESA, as well as the Texas administrative code and associated agency regulations, T&E
856 species are subject to protection from impacts associated with proposed actions. Protection varies
857 depending upon the state or federal listing status of each species, whereby an endangered or threatened
858 listing provides federal and/or state protection for that species throughout all or a significant portion of its
859 range. Candidate species are those for which data has been presented to USFWS in support of a listing
860 determination, but the process of listing has not yet gone to completion or is on hold. Take of federally
861 listed or state-listed T&E species may result in fines and imprisonment if the action occurs without
862 appropriate permits. Extirpated species (as defined by the USFWS and TPWD) are species that no longer
863 occur in areas that they previously inhabited. However, the potential for unknown populations of the
864 species to remain, or the presence of suitable habitat to re-establish the species, often merits
865 consideration during the project planning process.

866 Arcadis reviewed the USFWS Information for Planning and Consultation (IPaC) tool, TPWD Rare Species
867 County Mapper, and the Texas Natural Diversity Database to evaluate the likelihood for T&E plant and
868 wildlife species to occur within the project area. Representative T&E species lists are provided in
869 **Appendix E**, and **Table 6** provides a consolidated list of state and federally listed T&E species of
870 potential occurrence in El Paso County, Texas. Of the state and federally listed species of potential
871 occurrence, none are expected to occur within the project area. According to the IPaC report, the project
872 area does not contain critical habitat for any of the federally listed T&E species known to occur in El Paso
873 County and habitat is limited on site due to the ongoing disturbed nature of the from WWTP operation and
874 surrounding commercial/industrial areas.

875
 876

Table 6 Federal and State-listed Threatened and Endangered Species of Potential Occurrence in El Paso County, Texas

Common Name	Scientific Name	Federal Status ¹	State Status ²	Habitat Present Onsite
Birds				
Mexican spotted owl	<i>Strix occidentalis lucida</i>	T	T	N
Northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	E	E	N
Piping plover	<i>Charadrius melodus</i>	T	T	N
Rufa red knot	<i>Calidris canutus rufa</i>	T	T	N
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E	E	N
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	T	--	N
White-faced ibis	<i>Plegadis chihi</i>	--	T	N
Fish				
Speckled chub	<i>Macrhybopsis aestivalis</i>	--	T	N
Insects				
Monarch butterfly	<i>Danaus plexippus</i>	C	--	P
Mammals				
Tricolored bat	<i>Perimyotis subflavus</i>	PE	--	N
Reptiles				
Mountain short-horned lizard	<i>Phrynosoma hernandesi</i>	--	T	N
Texas horned lizard	<i>Phrynosoma cornutum</i>	--	T	N
Plants				
Sneed pincushion cactus	<i>Coryphantha sneedii</i> var. <i>sneedii</i>	E	E	N

877 Notes:
 878 1 – U.S. Fish and Wildlife Service (USFWS), 2023c.
 879 2 – Texas Parks and Wildlife Department (TPWD) – Rare, Threatened and Endangered Species of Texas by County, 2023.
 880 T = threatened; E = endangered; C =candidate for federal listing; PE = proposed endangered
 881 Y = Yes, N = No, P = Potentially, but unlikely

882 **T&E Wildlife Species**

883 A total of 12 federal and state-listed T&E wildlife species are considered species of potential occurrence in
 884 El Paso County, Texas. Those 12 species consist of seven bird species, one mammal, two reptiles, one
 885 fish, and one insect. The IPaC report indicated 10 of the 12 potentially occurring species are federally listed
 886 as threatened or endangered, while one is a Candidate for listing and the other is Proposed Endangered.

887 Due to a lack of suitable habitat and lack of reported occurrences within the project area, the proposed
 888 project would have no effect on any of the federally listed species. The yellow-billed cuckoo,
 889 southwestern willow flycatcher, and tricolored bat would likely experience no effect because the site does
 890 not provide the riparian woodland habitat that they would require. The northern aplomado falcon requires
 891 open grasslands or savannahs with scattered trees and shrubs, and the Mexican spotted owl requires
 892 remote, shaded canyons of mountain woodlands, both of which do not exist on the site (TPWD, 2023).
 893 The piping plover and the red knot would likely experience no effect because there is no suitable nesting,
 894 feeding, or stopover habitat on the project site (TPWD, 2023, USFW, 2023d). There is also a lack of
 895 appropriate aquatic habitat to support the white-faced ibis and speckled chub. The mountain short-horned
 896 lizard and Texas horned lizard both require higher elevations and a greater prevalence of vegetation that
 897 is absent from the project site. The project site lacks suitable habitat for the monarch butterfly, as
 898 milkweed and native flowering plants are needed for monarch habitat (USFWS, 2024). Vegetation at the
 899 project site is sparse and consists mostly of bare ground. However, monarch butterflies are known to
 900 migrate through Texas on their way to Mexico and can be found in El Paso during the migration season.
 901 Thus, the monarch butterfly has potential to occur at the project site as a potential migratory stopover, but
 902 it is not likely to utilize the site due to sparse presence of vegetation. Based on these determinations,

903 consultation with the USFWS under Section 7 of the ESA is not required for these species and impacts
904 on T&E wildlife resources as a result of the proposed Project would not be significant.

905 ***T&E Plant Species***

906 One federal and state-listed endangered plant species is considered a species of potential occurrence in
907 El Paso County, Texas. However, based on conditions observed during the, 2023 site visit, the current
908 vegetative community was highly disturbed and exhibited low species diversity and extensive signs of
909 disturbance. The Sneed’s pincushion cactus would likely experience no effect because there appears to
910 be no suitable habitat (limestone outcrops on rocky steep slopes) within the project site (TPWD, 2023).
911 Because of the barren, sparsely vegetated landscape of the project site its lack of natural habitat, lack of
912 connection to intact natural habitats, and resultant low potential for wildlife use, impacts on T&E plant
913 resources as a result of the proposed project would not be significant.

914 **3.10 Socioeconomics and Environmental Justice**

915 **3.10.1 Socioeconomics**

916 ***No Action Alternative:***

917 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
918 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
919 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
920 perimeter. Therefore, the No Action Alternative would have no effect on socioeconomics and
921 environmental justice.

922 ***Proposed Action:***

923 The project is located in the City of El Paso, El Paso County, Texas. The project lies on the western edge
924 of the US-Mexico border, with industrial sites, agricultural fields, and recreational areas to the north,
925 south, and east. Residential neighborhoods occur approximately 0.4 miles to the east of the project site.
926 The nearest hospital is located approximately seven miles to the northeast, and the nearest school is
927 located approximately three miles to the east (Google Inc., 2023).

928 Development of the Proposed Project would generate up to 80 full-time jobs, resulting in beneficial
929 socioeconomic impacts from increased employment opportunities, tax revenue generation, and direct and
930 indirect spending in the local economy. No new housing or supporting infrastructure is anticipated, as El
931 Paso has ample housing and associated infrastructure to support residents due to job creation at the facility.

932 Due to the short duration of the construction phase, construction of the project is not anticipated to trigger
933 any permanent in-migration of workers and the construction-phase labor demand is expected to be met
934 by the existing local or regional construction workforce. Given the current unemployment rate and labor
935 force–participation rates, it is anticipated that some migration could occur to the affected area to meet the
936 labor demand of the project, but to a small degree. However, based on the short commuting times in the
937 affected area and the well-developed transportation infrastructure, it is not expected that these new
938 employees would be disproportionately located in any single locale within the affected area. It is expected
939 that the existing infrastructure and services (e.g., roads, schools, fire departments, police force) would
940 accommodate this small population migration to the affected area without impacts on service ratios or
941 other performance metrics.

942 Based on the jobs that would be created during construction and operation of EPWater’s project and
943 the availability of housing and public services in El Paso, no significant adverse socioeconomic impacts
944 are expected.

945 **3.10.2 Environmental Justice**

946 Reclamation’s review of Environmental Justice (EJ) issues focuses on Executive Order 12898, “Federal
 947 Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” the
 948 National-Scale Air Toxics Assessment (NATA) cancer risk and respiratory hazard index as defined in
 949 EPA’s EJ screening tool, and on any site-specific population centers (e.g., schools, day-care centers)
 950 near the project site.

951 Executive Order 12898 directs federal agencies to address environmental and human health conditions in
 952 minority and low-income communities. The evaluation of EJ is dependent on determining if high or
 953 adverse impacts from the project would disproportionately affect minority or low-income populations in the
 954 affected community. In accordance with EPA’s EJ guidelines, minority populations should be identified
 955 when either: 1) the minority population of the affected area exceeds 50 percent; or 2) the minority
 956 population percentage of the affected area is meaningfully greater than the minority population
 957 percentage in the general population or other appropriate unit of geographic analysis.

958 The project area occurs within the city of El Paso and includes the adjacent community of Socorro. This
 959 area defines the affected area of the project for the purposes of this EJ analysis. **Table 7** provides a
 960 comparison of population and ethnicity for the affected area within the City of El Paso and the
 961 surrounding communities. Minority populations are greater than 80 percent of the population in the city,
 962 which is higher than minority populations in the state (60.6 percent); however, the project site is less than
 963 a mile from the U.S.-Mexico border and Hispanic populations are historically higher than elsewhere in the
 964 state. The people of color population is 87.1 percent (see **Table 7**), which also represents the regional
 965 Hispanic population (U.S. Census Bureau, 2023).

966 The percentage of persons in poverty is 4.3 percent higher in the city (18.3 percent) than in the rest of the
 967 state (14.0 percent). In the EPA’s EJ screening tool (**Table 8**), the low-income population is 57 percent,
 968 which is also higher than the state average of 34 percent (81st percentile) and 26 points higher than the
 969 U.S. average of 31 percent (86th percentile). However, the incidence of poverty based on the percentage
 970 of persons below the poverty level for El Paso is not meaningfully different than the state of Texas. There
 971 are no anticipated impacts that would give rise to disproportionate impacts on minority or low-income
 972 populations in the affected area (EPA 2023).

973 **Table 7 Population, Ethnicity, and Poverty**

Population/Ethnicity/Poverty	City of El Paso	State
Total population	677,456	30,029,572
Race/Ethnicity		
White	12.4%	31.3%
Black or African American	3.4%	13.4%
American Indian and Alaska Native	0.6%	1.1%
Asian	1.3%	5.7%
Native Hawaiian and other Pacific Islander	0.2%	0.2%
Hispanic or Latino	81.6%	40.2%
Poverty	18.3%	14.0%

974 Notes:
 975 All population and ethnicity data were gathered from the U.S. Census Bureau web page. Accessed November 7, 2023.

976 **Table 8 EPA’s EJ Screen Report**

Variants	Value	State Average	Percentile in State	U.S. Average	Percentile in U.S.
NATA* cancer risk (lifetime risk per million)	35	28	44	25	50-60th
NATA* respiratory hazard index	0.25	0.3	1	0.31	<50th
People of color population	99%	58%	93	39%	96
Low-income population	57%	34%	81	31%	86

977 Notes:
 978 Selected Variables – 1 mile Ring Centered at 31.653920, -106.318485, Texas, EPA Region 6. Approximate Population: 1,106.
 979 * More information on the NATA can be found at: <https://www.epa.gov/national-air-toxics-assessment>

980 The NATA cancer risk and respiratory hazard indices are a way to see how local residents compare to
 981 everyone else in the state and the entire U.S. For the NATA respiratory hazard index and the NATA
 982 cancer risk index (lifetime risk per million), the project is in an area that is in the 50-60th percentile in the
 983 U.S. Although these NATA percentiles are higher in comparison to the rest of the U.S., the project
 984 emissions would be reviewed by the state environmental agency for an Air Permit By Rule, as discussed
 985 in Section 3.5, Air Quality. Permitted emission levels of criteria pollutants and hazardous air pollutants are
 986 considered to be protective of human health and the environment. Also, based on the permit, controls will
 987 be implemented during operation to minimize emissions and potential air quality impacts.

988 Based on the jobs created during construction, and the 18 full-time permanent jobs created during
 989 operation, the project will benefit the regional economy. There are no anticipated impacts that would give
 990 rise to disproportionate impacts on minority or low-income populations in the affected area; therefore, EJ
 991 impacts would be largely beneficial.

992 **3.11 Health and Safety**

993 **No Action Alternative:**

994 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
 995 plan. The No Action Alternative would not require new ground disturbance, excavation, construction, or
 996 facility operation. The project site would remain undeveloped land within the Bustamante WWTP fenced
 997 perimeter. Therefore, the No Action Alternative would have no effect on health and safety.

998 **Proposed Action:**

999 Public health and safety involves occupational hazards to workers and the potential exposure of the
 1000 general public to conditions that could result in health or injury hazards. Potential hazards include
 1001 excessive noise levels, mechanical dangers, exposure to toxic chemicals, heat or cold stress, or
 1002 unsanitary conditions. The Occupational Safety and Health Act (OSHA) (29 USC § 651 et seq.) protects
 1003 worker and workplace safety and created the NIOSH to establish and enforce standards for workplace
 1004 health and safety. Other federal, state, and local regulations also further protect people and the
 1005 environment from hazards.

1006 Significant impacts would result if activities were to jeopardize the health and safety of workers or the
 1007 public or violate applicable federal and/or state safety regulations. However, such occurrences are not
 1008 anticipated, as all construction and operational activities would adhere to all OSHA, USACE, and DHS
 1009 safety standards.

1010 Operation of the AWPf within the EPWater facilities are performed by qualified and trained staff. Any
 1011 higher-risk activities are performed in designated facilities with controlled access and DHS-required safety
 1012 protocols. Thus, existing conditions within the AWPf site would not present health and safety concerns to
 1013 workers or the general public.

1014 The Bustamante WWTP is surrounded by an access control fence and staffed access gates. Thus, only
 1015 authorized personnel could enter the AWPf site and the existing facilities within the WWTP. The
 1016 existence of these access controls mitigates any concerns regarding public health and safety. Therefore,
 1017 the proposed project would have no effect on public health and safety.

1018 **3.12 Soils and Prime Farmlands**

1019 **No Action Alternative:**

1020 Under the No Action Alternative, the Bustamante WWTP would continue to operate under the current
 1021 plan. The No Action Alternative could potentially have indirect, long-term negative effects on soils and
 1022 farmlands. As stated previously, significant increases in water demand are forecasted to occur in El Paso.
 1023 Increased water demand without a means of preserving aquifers or recycling water will cause increases
 1024 in water scarcity. This may negatively impact soil quality, structure, moisture levels, and organic matter
 1025 content. Such changes would impede plant growth and impair habitat quality for wildlife. Impaired soil
 1026 quality and water scarcity would also be detrimental to farmlands by decreasing crop productivity and
 1027 increasing the frequency of dust storms.

1028 **Proposed Action:**

1029 Soil data and information was gathered from the Web Soil Survey operated by the Natural Resources
 1030 Conservation Service-U.S. Department of Agriculture (NRCS-USDA). Based on review of the NRCS Web
 1031 Soil Survey, there are four soil associations within the project site (**Figure 7**). These soil associations are
 1032 provided in **Table 9**.

1033 **Table 9 NRCS Web-Soil Survey – Mapped Soil Associations within the Project Site**

Soil Unit Symbol	Current Use	Acres	Percent of Total Acres	Farmland Classification
Gd	Glendale loam	2.9	29.2	Not prime farmland
Ha	Harkey loam	4.1	42.3	Not prime farmland
Hk	Harkey silty clay loam	2.8	28.5	Not prime farmland
Tg	Tigua silty clay	< 0.1	< 0.1	Not prime farmland
TOTAL		13	100%	

1034 The parent material for the Glendale loam and Tigua silty clay soil map units are Holocene-age fine-silty
 1035 and clayey alluvium. The parent material for Harkey loam and Harkey silty clay loam consists of Harkey-
 1036 age coarse silty alluvium. Approximately 42.3 percent of the project area is underlain by the Harkey loam
 1037 soil series, which consists of well drained loamy bottomlands that occur on flood plains and river valleys.
 1038 The remaining soil map units have drainage classes including well-drained (Harkey silty clay loam and
 1039 Glendale loam) and moderately well-drained (Tigua silty clay). Runoff potential varies across the project
 1040 site soils as well, with negligible potential across the majority of the site associated with the Harkey loam
 1041 soil map unit; low runoff potential for Harkey silty clay loam and Glendale loam soil map units; and high
 1042 potential for Tigua silty clay. Water-erodible soils are rated as having a severe, moderate, or slight
 1043 potential for water erodibility. The majority of site has moderate to high water erosion potential (Harkey
 1044 silty clay loam soil map unit; K factor = 0.43) (Harkey loam, K factor = 0.49) (Glendale loam soil map unit;
 1045 K factor = 0.55) and less than one percent of the site has low water erosion potential (Tigua silty clay soil
 1046 map unit; K factor = 0.32). All soil map units for the site are categorized with a wind erodibility rating of 4L,
 1047 corresponding with a moderate risk of wind erosion, with the exception of Tigua silty clay, which has a
 1048 wind erodibility rating of 4 (also considered moderate) (NRCS-USDA 2023).

1049 Important farmlands that are designated as either prime, unique, and/or land of statewide or local
 1050 importance, are subject to protection under the Farmland Protection Policy Act of 1981 (7 USC 4201, et

1051 *seq.*), implementing regulations 7 CFR Part 658. Prime farmland, as defined by the USDA, is land that
1052 has the best combination of characteristics for producing food, feed, forage, fiber, and oilseed crops.
1053 None of the soils located in the project site are classified as prime farmland (**Table 9**). The project area is
1054 made up almost entirely of historically disturbed, undeveloped land.

1055 The National Commodity Crop Productivity Index (NCCPI), version 3.0, evaluates the relative value of
1056 farmland by rating soil according to its inherent capacity to produce dryland (non-irrigated) commodity
1057 crops. Most of the NCCPI criteria relate directly to the ability of soils, landscapes, and climates to foster
1058 crop productivity. A few criteria relate to factors that can limit use of the land (e.g., surface boulders). All
1059 criteria used in the index affect crop culture and production and are referred to as factors affecting
1060 inherent productivity (NRCS-USDA, 2022). All of the listed soil map units are categorized as having low
1061 inherent productivity by the NCCPI, indicating that the soil has one or more features that are unfavorable
1062 for crop production.

1063 During construction, 13 acres of soils would be impacted over the long-term due to the project's
1064 permanent facilities (i.e., construction of the manufacturing facility, roads, parking, and other support
1065 facilities). Short-term impacts include soil loss through erosion, compaction, and loss of structure in soils
1066 that are disturbed or driven on during construction. After construction, temporarily disturbed surfaces or
1067 compacted areas that are not needed for permanent facility operation would be regraded, loosened, and
1068 revegetated. Impacts to soils during the operational phase of the project would largely be associated with
1069 limited soil erosion induced by vehicle traffic on existing unpaved roads, but soil erosion from this source
1070 is expected to be negligible.

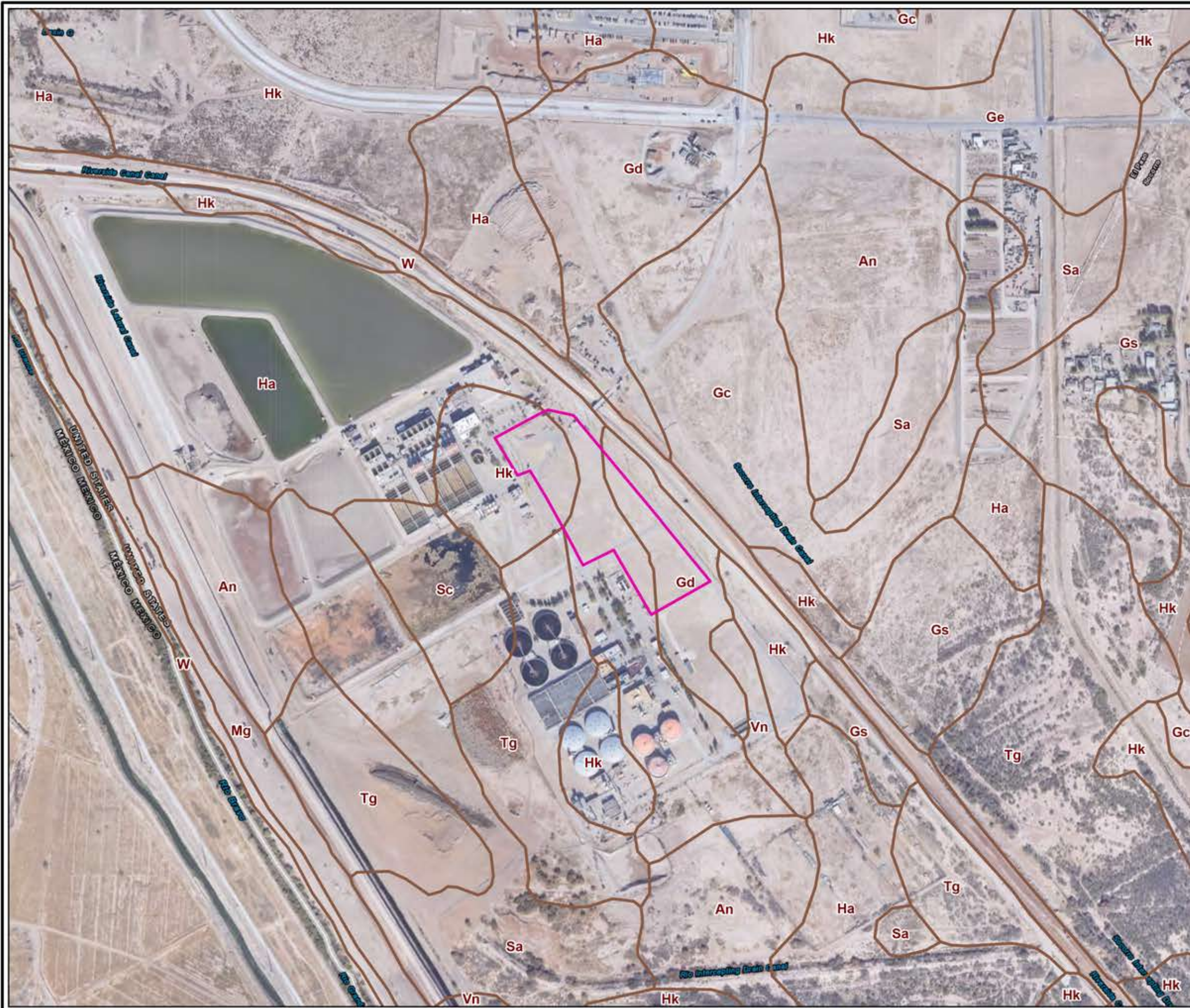
1071 EPWater would monitor and repair any areas of erosion or soil instability. Implementation of an
1072 appropriate design, as well as construction and post-construction BMPs would reduce the overall
1073 potential for soil erosion. Additionally, none of the listed soils within the project area are prime farmlands,
1074 therefore resulting in no reductions in prime farmland from the project. Therefore, overall impacts on soils
1075 and prime farmland by the project would not be significant.



1076 **3.13 Cumulative Impacts**

1077 *Cumulative impacts* are potential effects on the environment from the incremental impact of the project
1078 when added to other past, present, and reasonably foreseeable future actions undertaken by other
1079 agencies (federal or nonfederal) or persons (40 CFR Part 1508.1 (g)). Projects were identified through a
1080 review of active project lists and planning documents from the City of El Paso, TxDOT, and additional
1081 information provided by the Applicant. The review identified the following current and reasonably
1082 foreseeable future projects:

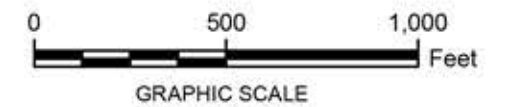
- 1083 • **State Loop 375 (SL 375)** – A Camino Real Regional Mobility Authority (CRRA) project to widen
1084 the highway through the construction of two toll lanes.
- 1085 • **State Highway 20 (SH 20)** – Several TxDOT projects are currently underway or beginning soon
1086 from SL 375 to Buford Road, including roadway resurfacing and restoration, and construction of
1087 pedestrian infrastructure.
- 1088 • **Farm to Market 258 (FM 258)** – A TxDOT project projected to begin within 4 years that will
1089 restore and resurface the roadway from Socorro Road to SH 20.

1090 **Figure 7 Soils Map**



LEGEND:
 SOIL CLASS BOUNDARY
 PROJECT LOCATION

Soil ID	Soil Description
An	Anapra silty clay loam
Gc	Gila loam
Gd	Glendale loam
Ge	Glendale silty clay loam
Gs	Glendale silty clay
Ha	Harkey loam
Hk	Harkey silty clay loam
Mg	Made land, gila soil material
Sa	Saneli silty clay loam
Sc	Saneli silty clay
Tg	Tigua silty clay
Vn	Vinton fine sandy loam
W	Water



NOTES:
 1. MARCH 2020 IMAGERY PROVIDED BY GOOGLE EARTH PRO.
 2. NATURAL RESOURCES CONSERVATION SERVICE (NRCS) SOIL DATA OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE AT: [HTTPS://WEBSOILSURVEY.NRCS.USDA.GOV](https://websoilsurvey.nrcs.usda.gov)

EL PASO WATER ADVANCED WATER PURIFICATION FACILITY PROJECT
 EL PASO, TEXAS

NRCS SOIL MAP

- 1091 • **Interstate 10 (I-10)** – A TxDOT project that will widen the freeway through the addition of lanes
1092 and shoulders; construction is projected to occur in at least 10 years.
- 1093 • **Onward Alameda** – A corridor master plan developed by the City of El Paso to create transit-
1094 oriented developments along Alameda Avenue (SH 20).
- 1095 • **Rojas Widening** – A City of El Paso project anticipated to be completed in the summer of 2024
1096 that will involve the widening of existing Rojas Drive from a four-lane roadway to a six-lane
1097 divided facility with pedestrian amenities.

1098 Identified projects in the region were reviewed to determine the resources that may be subject to a
1099 cumulative impact. The reviewed projects focused on the resources affected by the project and identified
1100 resources that may be affected by both the Proposed Project and other projects in the region. Based on
1101 this review, the following resources were evaluated for cumulative impacts.

- 1102 • Aesthetic and Visual Resources
- 1103 • Cultural Resources
- 1104 • Socioeconomics and Environmental Justice
- 1105 • Transportation

1106 The Proposed Project, when considered together with the identified projects in the region, does not have
1107 the potential to result in significant cumulative impacts on other resources due to the geographic location
1108 and separation of the projects, the disturbed nature of the project sites, and/or the lack of construction or
1109 operational overlap that would result in an incremental impact on a particular resource.

1110 **3.13.1 Aesthetic and Visual Resources**

1111 The project is in an area zoned for manufacturing and is located in an area which is currently
1112 undeveloped land and industrial land use with agriculture and residential use in the surrounding areas.
1113 Conversion of undeveloped, barren land to industrial use will not significantly alter the aesthetics and
1114 visual landscape of the area given that the planned facility will be consistent with the existing setting.
1115 Since the facility is already in an industrial setting, the cumulative impacts on aesthetics and visual
1116 resources would not be significant.

1117 The project area is zoned as M-2 Heavy Manufacturing, and several projects involve expansion or
1118 reconstruction of existing facilities. The project would involve construction of the AWPf and would be
1119 visible to the community, but wastewater/water reuse lines would be underground. Additionally, the
1120 AWPf would look similar to existing water treatment facilities at the project site. The facility would bring
1121 skilled technical jobs to the area and provide increased revenue in the community.

1122 Because the additional development within the commercial/industrial complex containing the project is
1123 consistent with the existing setting (zoned as Heavy Manufacturing), cumulative impacts on aesthetics
1124 and visual resources would not be significant.

1125 **3.13.2 Cultural Resources**

1126 As described in Section 3.3 *Cultural Resources*, the project would incorporate measures to minimize
1127 potential impacts to cultural resources. There are no known archaeological sites within the project area
1128 itself. Because of the absence of adverse impacts on known cultural resources within and surrounding the
1129 project site, and due to the controls that are in place in the event of an unanticipated discovery of such
1130 materials, the project would have no adverse impacts on cultural resources. Consequently, project-related
1131 impacts on cultural resources would not be significant. Since the project is in an already disturbed area

1132 consisting of industrial, agricultural, and residential land use with no known cultural sites within the project
1133 site, significant adverse cumulative impacts on cultural resources are not anticipated.

1134 **3.13.3 Socioeconomics and Environmental Justice**

1135 There are no anticipated project impacts that would give rise to disproportionate impacts on minority or
1136 low-income populations in the affected area. The construction and operation of the project and facility
1137 would result in an increase in temporary construction workers and long-term employment. The project is
1138 expected to provide 80 new full time permanent positions at the facility plus construction and other
1139 supporting industry jobs. The increase in short-term and long-term jobs in the region would result in a
1140 beneficial socioeconomic impact. Because the project and the other projects in the region are subject to
1141 regional planning and coordination via the City of El Paso, El Paso County, and TxDOT, significant
1142 cumulative impacts on the existing infrastructure and services (e.g., roads, schools, fire departments,
1143 police force) resulting from any population migration to the area are not anticipated. Therefore, the overall
1144 cumulative impact on socioeconomics from the project is expected to be beneficial.

1145 Minority populations are greater than 80 percent of the population in the El Paso Area, which is higher than
1146 minority populations in the state (60.6 percent); however, the project site is less than one mile from the U.S.-
1147 Mexico border and Hispanic populations are historically higher than elsewhere in the state. The people of
1148 color population is 87.1 percent (see **Table 8**), which also represents the regional Hispanic population.
1149 Additionally, the incidence of poverty based on the percentage of persons below the poverty level for El
1150 Paso is not meaningfully different than the state of Texas. There are no anticipated impacts that would give
1151 rise to disproportionate impacts on minority or low-income populations in the affected area.

1152 **3.13.4 Transportation**

1153 During operations, and when at full capacity, truck and employee traffic would also increase. The
1154 anticipated operations of the factory will include approximately 18 full-time employees, working 8-hour
1155 shifts. However, EPWater would implement a Traffic Control Plan to ensure safety during various phases
1156 of project construction, and EPWater and TxDOT would work collaboratively to ensure traffic pattern
1157 changes are aligned with project activities and that appropriate signage and controls are in place to
1158 uphold traffic safety, including a controlled turning lane at the intersection to mitigate traffic to and from
1159 the project site. Pavement markings needed at internal intersections would be updated to avoid
1160 anticipated vehicle conflicts due to sight restrictions and turning envelopes of both passenger vehicles
1161 and large trucks.

1162 Based on the measures incorporated as part of the project (i.e., accounting for increases in traffic from
1163 construction and operation by installing appropriate signage and controls, managing traffic flows at
1164 intersections with pavement markings, and implementing traffic control plans), no significant adverse
1165 cumulative effects on the region's overall transportation network are anticipated.

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1235 **5. DRAFT FINDING**

1236 Based on this EA, Reclamation has determined that providing a federal loan guarantee to EPWater to
1237 construct the El Paso Advanced Water Purification Facility in El Paso, Texas will not have a significant
1238 effect on the human environment. The preparation of an environmental impact statement is therefore not
1239 required, and Bureau of Reclamation is issuing this Finding of No Significant Impact.

1240 This Finding of No Significant Impact should not be construed as a final decision about the issuance of a
1241 loan guarantee.

1242	_____	_____
1243	Scott Hebner	Date
1244	NEPA Compliance Officer	
1245	Bureau of Reclamation	

1246 **6. LIST OF AGENCIES CONTACTED**

1247 Texas Parks and Wildlife Department

1248 Texas Historical Commission

1249 Texas Commission on Environmental Quality

1250 U.S. Army Corps of Engineers

1251 U.S Fish and Wildlife Service

1252 **7. LIST OF PREPARERS**

1253 **Bureau of Reclamation**

1254 Scott Hebner, Environmental Protection Specialist, [TBD] years of experience

1255 **Arcadis**

1256 Jeremy Henson, CE, B.S. Biology/M.S. Ecology, 23 years of experience

1257 Robin Barnes, M.A. Archaeology, 23 years of experience

1258 Sara Moore, B.S. Biology, 18 years of experience

1259 Elizabeth Hingle, B.S. Natural Resources, 7 years of experience

1260 Anastasia Mogilevski, M.S. Biology, 5 years of experience

1261 **Applicant**

1262 [TBD]

APPENDIX A APPLICABLE PROJECT PERMITS AND APPROVALS

Agency	Regulation	Applicability	Comments
U.S. Army Corps of Engineers (USACE) – Albuquerque District	Clean Water Act (CWA) Section 404	Designed to regulate the discharge of dredged and fill material into waters of the United States, such waters as rivers, lakes, streams, and most wetlands. Permit applicability is dependent on final design and project impacts. Project may qualify for coverage under a Nationwide Permit or may require an Individual Permit.	Compensatory mitigation is required for all permanent impacts of greater than 0.10 acre of forested wetland and 0.50 acre of herbaceous wetland.
Texas Commission on Environmental Quality (TCEQ)	CWA 401 State Water Quality Certification and 303D (Impacted Streams)	State certification indicating project meets state or tribal water quality standards. Applicable to all projects that have the potential to affect water quality.	Issued as part of Section 404 permit. In Texas this certification is delegated to the TCEQ, unless the project is covered under an Individual Permit.
TCEQ	Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR150000	Sites with an area of ground disturbance greater than one acre fall under the jurisdiction of the TPDES system. Sites with greater than five acres of disturbance require the submittal of an NOI.	Requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and may require submittal of a Notice of Intent (NOI).
U.S. Fish and Wildlife Service (USFWS)	Endangered Species Act (ESA)	Ensures that projects are not likely to jeopardize the continued existence of an endangered or threatened species, or result in the destruction or adverse modification to critical habitat of endangered or threatened species.	If there is potential habitat, coordination with the USFWS is initiated and presence/absence surveys would be required.
USFWS	Migratory Bird Treaty Act (MBTA)	Ensures projects do not impact migratory birds or their nesting sites during nesting seasons or other migratory windows.	In Texas the migratory bird breeding/nesting season is from March – September. Bald Eagle breeding season is from October – May.
Texas Parks and Wildlife Department (TPWD)	Rare, Threatened, and Endangered Species Review	Ensures that projects are not likely to jeopardize the continued existence of state-listed threatened or endangered species, or result in the destruction or adverse modification to critical habitat of endangered or threatened species.	If there is potential habitat, coordination with the TPWD may be required, and presence/absence surveys may be conducted
TPWD	Marl, Sand, and Gravel Permit	If the stream is perennial (flows most of the time), or is more than 30 feet wide between the banks (even if it is dry most of the time), the State claims the bed and the sand and gravel in it as State-owned. A permit from the TPWD is required to "disturb or take" streambed materials from a streambed claimed by the State.	Any streams present will be assessed during the USACE 404 Waters of the U.S. survey. Issuance of a permit may also require survey and relocation of freshwater mussel species.
Texas General Land Office (GLO)	Miscellaneous Easement Agreement Coastal Consistency Statements	Manages all state waters and implements the state's Coastal Management Program. All new utility crossings of navigable, state-owned waters require issuance of a miscellaneous easement agreement from GLO prior to construction. All projects located within the Coastal Management Zone must be compliant with the Coastal Management Program and submit a Coastal Consistency Statement, as needed.	Typically, Coastal Consistency Statements are submitted as an appendix to a USACE Section 404 PCN or IP application. Otherwise, Coastal Consistency Statements are completed and saved in the project file, but not submitted to the GLO.
Texas Historical Commission (THC) / State Historic Preservation Office (SHPO)	Section 106 National Historic Preservation Act (NHPA)	Projects must evaluate effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings.	A site-specific evaluation for adverse effects on cultural or historic resources may be required if there is a potential for cultural or historic resources in close proximity to the project.
Local Municipalities (if applicable)	Municipal codes for floodplain and stormwater management, stormwater BMPs, development within a special flood hazard area (SFHA).	Any structures proposed within the floodplain and/or existing MS4 stormwater management systems require city review. Must be consistent with EPA and TCEQ requirements.	May also be contingent upon county-level review of any structures proposed within the floodplain.

Agency	Regulation	Applicability	Comments
Federal Emergency Management Agency (FEMA)	1960 Flood Control Act	Floodplain data is reviewed to determine the potential for impacts to floodplain/floodways.	Contingent upon city and county review of any structures proposed within the floodplain.
County Drainage Districts (if applicable)	Drainage permit	Many counties have an irrigation or drainage district to maintain and regulate irrigation ditches. If these ditches are crossed, the drainage district may require approval.	<p>Permit approval may coincide with other city or county floodplain permit approval.</p> <p>Common districts include Harris County Flood Control District in Houston and Jefferson County Flood Control District Beaumont.</p>

APPENDIX B DESIGN PLANS

APPENDIX C SITE PHOTOGRAPHS

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 1

Description: General view of the project site from the southern boundary of the project.

Direction: North

Date: 11/29/2023



Photograph: 2

Description: General view of the project site area.

Direction: East

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 3

Description: General view of the site from the middle of the project area. Vehicle tracks are visible in the soil.

Direction: South

Date: 11/29/2023



Photograph: 4

Description: General view of the project site showing paved roadway that runs through the area.

Direction: Northeast

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 5

Description: General view of the project site showing vehicle track marks.

Direction: East

Date: 11/29/2023



Photograph: 6

Description: General view of the project site showing paved roadway on western side and sinkhole marker.

Direction: North

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 7

Description: View of potential animal burrow on the western side of the project site.

Direction: West

Date: 11/29/2023



Photograph: 8

Description: View of potential animal burrow on the central portion of the project site.

Direction: South

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 9

Description: View of surface depression located in the center of the project area.

Direction: South

Date: 11/29/2023



Photograph: 10

Description: View of surface depression located in the center of the project area.

Direction: South

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 11

Description: View of a surface depression located in the central portion of the project area.

Direction: North

Date: 11/29/2023



Photograph: 12

Description: View of multiple surface depressions located in the northern portion of the project area.

Direction: North

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 13

Description: View of potential canid (coyote or dog) footprints located on the southwestern boundary of the project.

Direction: North

Date: 11/29/2023



Photograph: 14

Description: View of red harvester ant colony (*Pogonomyrmex barbatus*).

Direction: North

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 15

Description: General view of the Water Treatment Plant facility.

Direction: Northwest

Date: 11/29/2023



Photograph: 16

Description: General view of the entrance to the project site located on the eastern boundary.

Direction: East

Date: 11/29/2023

Photograph Log

El Paso Water
Advanced Water Purification Facility – El Paso, Texas
30171186



Photograph: 17

Description: View of soil erosion indicating water flow patterns going east to west.

Direction: Southwest

Date: 11/29/2023



Photograph: 18

Description: General view of western boundary of project area showing water treatment plant.

Direction: West

Date: 11/29/2023

APPENDIX D AGENCY AND TRIBAL CORRESPONDENCE

Appendix D is in progress and is not yet available for posting.

APPENDIX E LISTS OF THREATENED AND ENDANGERED SPECIES OF POTENTIAL OCCURRENCE IN THE PROJECT AREA

This Attachment contains the USFWS IPaC Threatened and Endangered Species List, and the TPWD Threatened and Endangered Species List for El Paso County. These lists indicate species protected by federal and state agencies that may potentially occur within the proposed AWTP facility or El Paso County. This Attachment cannot be made fully compliant with Section 508 of the Rehabilitation Act of 1973.