

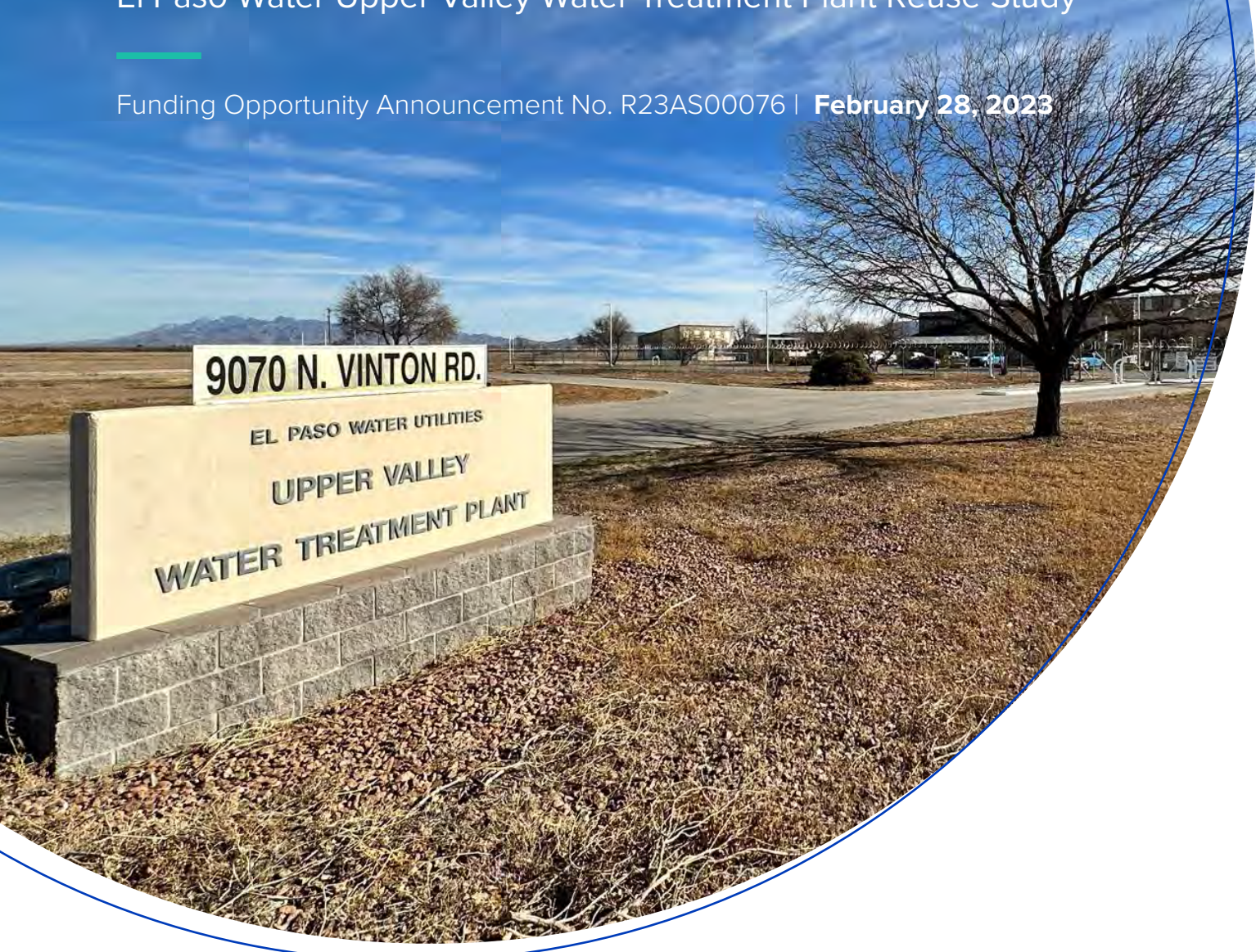


U.S. Department of the Interior, Bureau of Reclamation,
Water Resources and Planning

WaterSMART: Water Recycling and Desalination Planning

El Paso Water Upper Valley Water Treatment Plant Reuse Study

Funding Opportunity Announcement No. R23AS00076 | **February 28, 2023**



Project Partners and Communities: El Paso County

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Technical Proposal

Executive Summary

DATE: February 28, 2023

APPLICANT NAME: El Paso Water

CITY/ COUNTY: El Paso, El Paso County

STATE: Texas

APPLICANT CATEGORY: Reuse

The Upper Valley Water Treatment Plant (UVWTP), an arsenic treatment facility that draws its supply water from numerous groundwater wells, is owned and run by El Paso Water (EPWater). EPWater is seeking to investigate a water reuse solution to expand this facility to meet three objectives: 1) To meet growing demand for water supply in West El Paso; 2) to adjust groundwater use to limit impact to river flows managed by the Rio Grande Project; and 3) to provide relief to the Frontera Force Main sewer pipeline that currently collects and conveys all sewage on the west side of the city to the Hickerson Wastewater Treatment Plant. The Frontera Force Main (Frontera FM) sewer pipeline is similarly owned and run by EPWater. This large-diameter sewer line receives flow from northwest El Paso and is located close to the Rio Grande. Multiple catastrophic failures along the Frontera FM in 2022 led to a situation in which EPWater was discharging raw sewage into the Rio Grande for five months with an estimated total discharge of 1 billion gallons. The pipeline has mostly been renovated, but it still poses a risk because of its proximity to the Rio Grande and the large volumes of wastewater that it transports.

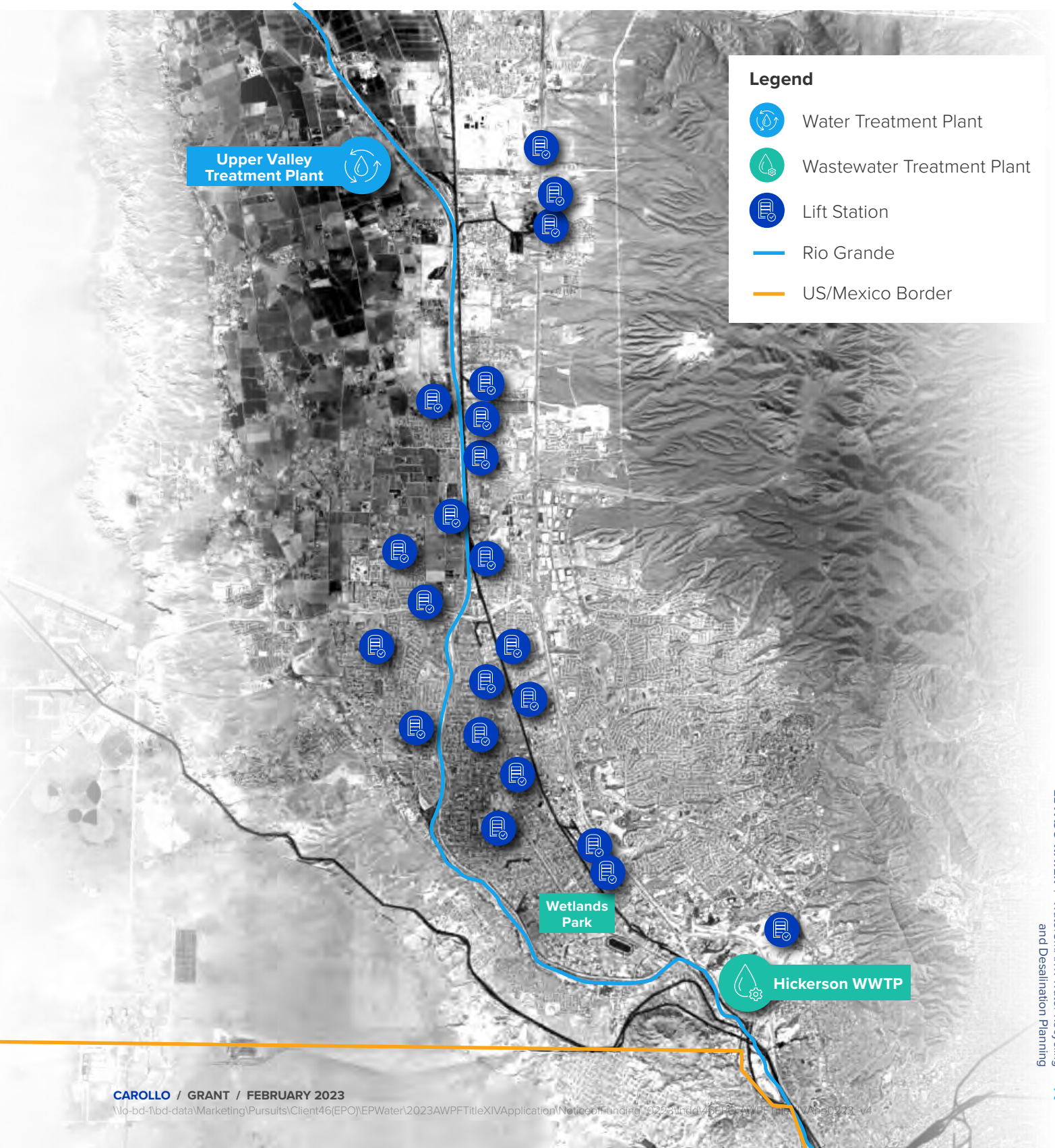
The Frontera FM is fueled by roughly 24 wastewater lift stations. As part of the project, treatment units would be installed at selected lift stations to treat the wastewater and then discharge the reuse water into an irrigation drainage canal called the Vinton Drain, which runs along the border of the U VWTP. Advanced treatment units would be added

to the plant and the surface reuse water from the drain would be treated to drinking water quality standards and sent to the distribution system as a fresh water source to limit groundwater pumping and meet anticipated future demand brought on by local growth. By removing some portion of the wastewater flow from the Frontera FM, the project would also considerably lower the likelihood of a future wastewater spill event into the Rio Grande. Reuse water obtained from the wastewater lift station locations would also contribute to groundwater recharge through the unlined irrigation drain canal with some flows sent to the Keystone Heritage Park and Desert Botanical Gardens to enhance the habitat.

El Paso Water is seeking financing for a feasibility study, alternatives analysis, preliminary design, and environmental impact studies, and compliance analysis activities, which would help EPWater better understand engineering options, environmental impacts and scope along with determining costs and benefits. The project planning phase will begin in November 2023 and conclude by November 2025. The design and construction would follow with estimated project completion in 2029. It is not believed that any federal lands are involved in the proposed project at this stage, but this will be confirmed during the study.

Project Location

The project boundary includes much of the northwest area of El Paso, Texas, as shown in the map.



Technical Project Description

Applicant Category and Eligibility: EPWater is seeking funding for Funding Group 1. EPWater is an eligible applicant because of their status as a local authority and location in the Western United States.

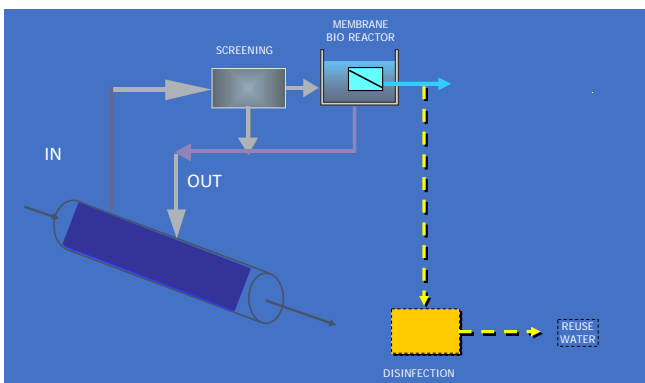
Goals: EPWater wants to secure funds for a feasibility study, an assessment of the alternatives, a preliminary design, and environmental impact study with compliance analysis. The study would aid EPWater in better comprehending engineering alternatives, environmental effects, and project scope, as well as in calculating costs and benefits and coordinating federal and state funding prospects. The project's objectives are to provide reuse water for drinking water that will meet growing demand in West El Paso, delay groundwater importation, provide groundwater recharge through seepage, reduce groundwater pumping, and supply reuse water for wetlands areas. By lowering the possibility of a sewer line spill close to the river releasing raw sewage into the Rio Grande, the project will also help protect it.

Approach: EPWater owns and operates the Upper Valley Water Treatment Plant (UVWTP), an arsenic treatment facility that obtains its water supply from multiple groundwater wells. EPWater seeks to limit the amount of groundwater used to supply this facility in order to preserve river flows managed by the Rio Grande Project. The plant was constructed with the intention of converting into a surface water treatment facility in the future by adding additional processes.

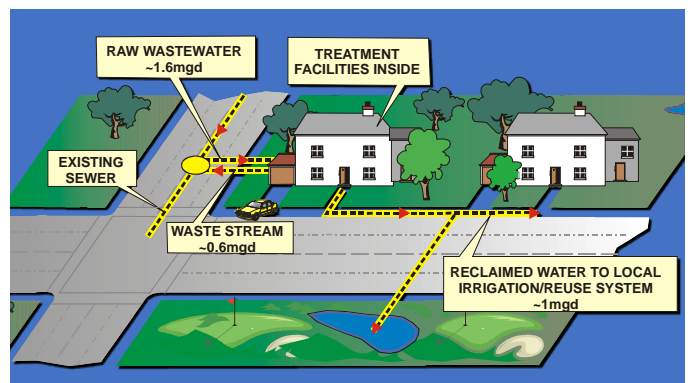
EPWater also owns and operates the sewer pipeline known as the Frontera Force Main (Frontera FM). This large-diameter sewer line receives flow from northwest El Paso and empties into the John T.

Hickerson Water Reclamation Facility (Hickerson WRF). An estimated 1 billion gallons of raw sewage were discharged into the Rio Grande over the course of five months in 2022 as a result of multiple catastrophic failures at the Frontera FM. The line has generally been replaced, but because it is the only sewage line that carries flow from the northwest to the Hickerson WRF along the Rio Grande, it still carries a risk of failing and spilling into the river.

El Paso intends to examine the viability of reusing water by diverting wastewater flow from a series of lift stations that feed into the Frontera FM and treat the wastewater for discharge as surface water. The fuel for the Frontera FM comes from about 21 lift stations. Membrane bioreactor (MBR) treatment units would be constructed at each lift station to treat a portion of the wastewater flow prior to discharging it to an existing irrigation drain, the Vinton drain, located close to the UVWTP. Treatment equipment at the UVWTP would be upgraded so as to utilize recycled surface water from the Vinton drain as feed water, while simultaneously recharging groundwater through the unlined drain. To satisfy expected future demand driven by local growth, the water would be cleaned to potable standards and provide a fresh water source to more than offset the reduction in groundwater extraction. The project would also significantly reduce the possibility of a future Frontera FM spill into the Rio Grande by diverting the majority of the wastewater flow from the sewer pipeline. Some reuse water from the MBR facilities would be routed to the Keystone Heritage Park and Desert Botanical Gardens to improve facility operations and enhance the ecosystem and habitat of the 52-acre park.



An MBR gives high quality effluent in a small footprint



Treatment will be provided at the wastewater source.

Before moving into the design phase, the study intends to assess three key project elements: the siting and sizing analysis for the MBR treatment units, the routing study to supply reuse water to the UVWTP, and the alternatives analysis for the UVWTP treatment units. To establish where there is space for the MBR units to be placed and which lift stations give the maximum flow, the lift station flows and locations will be investigated. Many of the lift stations are located in residential neighborhoods and have limited space available. MBR units can be concealed to blend in with the appearance of a conventional home and can be fitted within extremely small footprints. After the wastewater is treated to surface water discharge quality, the solids will continue to flow in the existing sewer system to the Hickerson WRF. The routing analysis will examine the local open channel drain network and determine whether a system of pipelines and pumps would be required for some of the flow.

The Keystone Heritage Park and Desert Botanical Gardens is located along the Frontera FM. The wetlands will be evaluated to determine if a portion of the reuse water can be sent to the wetlands to enhance the ecosystem. EPWater will collaborate with the owner of the Keystone Heritage Park, the City of El Paso, during the study phase.

The treatment study will evaluate the existing UVWTP and the expected surface water quality that would be received at the plant. Different treatment

and disinfection technologies will be evaluated to determine the best treatment train to provide high quality drinking water at the most economical price. The study will compare two treatment train alternatives. The first concept would meet all treatment needs through advanced treatment. The additional treatment would consist of reverse osmosis, ultraviolet advanced oxidation, granular activated carbon and chlorine disinfection. The second concept would blend the reuse water with UVWTP influent to demonstrate a lower pathogen loading with blending. The treatment train would consist of treating the blended water with ultraviolet advanced oxidation, granular activated carbon and chlorine disinfection.

El Paso County Water Improvement District No. 1 (EPCWID#1) owns and operates the irrigation structures, including the drains, within the project area. EPWater has a long, successful history of collaboration with EPCWID#1. The study phase will provide the opportunity for EPWater and EPCWID#1 to discuss conveyance of reuse water through the drains. This mutually beneficial plan will allow EPWater to convey reuse water to the UVWTP and will recharge groundwater through the unlined open-channel drains and provide additional maintenance and cleaning for the drains.



Photo of the wetlands at Keystone Heritage Park

The study phase will evaluate if reuse water can be sent to the wetland to enhance the habitat.



Photo of the Vinton Drainage Canal

The study phase will evaluate the multiple project areas involved in this study and recommend environmental compliance activities for the project.

Responses to Evaluation Criteria

EVALUATION CRITERION 1 – PROJECT PLANNING AND ANALYSIS

Subcriterion 1a – Water recycling needs and opportunities

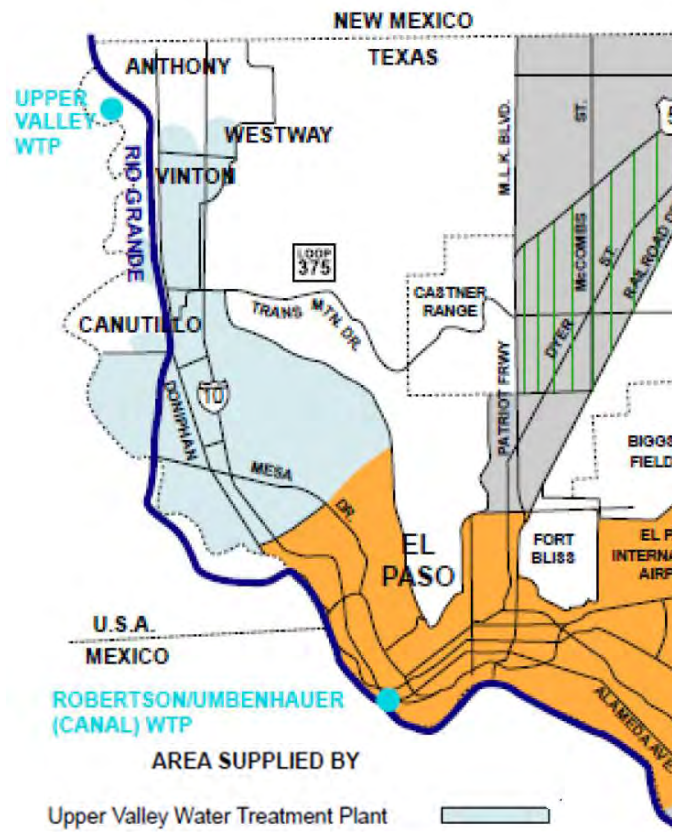
1. Describe the problems and needs in the project area.

The northwest area of El Paso is an area that is experiencing growth, and water demands will gradually increase in the coming decades. The UVWTP supplies year-round drinking water to the area and provides the best option for increasing capacity to serve the area. The Rio Grande Compact has been the subject of litigation for over nine years and deals with how the Bureau of Reclamation allocates water between Texas, New Mexico, and Colorado under the Rio Grande Compact. Much of the focus of the litigation is around the interface between groundwater pumping near the river and how that impacts the river. With this in mind, EPWater seeks to reduce groundwater pumping to limit the impact on Rio Grande flows. EPWater is seeking to reduce groundwater pumping by 5,000-8,000 acre-feet per year. The plant will have unused capacity as a result yet will need to continue to meet current and future water demands. The utility also seeks to reduce the burden on the Frontera Force Main to reduce the risk of future wastewater spills into the river.

2. Describe the current and projected water supplies and demands in the project area.

The UVWTP services the Upper Valley and West Side of El Paso as well as the towns of Canutillo, Vinton, and Westway. The plant treats up to 30 million gallons per day and blends it with up to another 30 million gallons per day using 21 groundwater wells in the Canutillo wellfield within the Mesilla Bolson aquifer. The treatment removes naturally occurring arsenic in the water and produces finished water with an arsenic concentration of 8 part per billion or less. EPWater obtains approximately nineteen percent of its water from the Mesilla Bolson and production, on average, is 25,000 acre-feet per

year. Annual projected production from the UVWTP would increase from 25,000 acre-feet per year to 36,355 acre-feet per year by the year 2070. When surface water allotments are available from the Rio Grande Project Water, the Robertson/Umbenhauer Surface Water Treatment Plant provides some of the drinking water supplied in the UVWTP supply area.



3. Describe how the planning activities will investigate potential uses and markets for reclaimed or desalinated water (e.g., environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, and recreation).

The planning efforts will explore several ideas for the reuse water supplied by this project which will be created at up to 17 locations within northwest El Paso. Most of the reuse water will be sent to the UVWTP as surface water through an existing drain canal. The water will be treated at the UVWTP to produce potable water which will enter the potable

water distribution system and provide drinking water for the west and northwest part of El Paso, as well as the towns of Canutillo, Vinton, and Westway. As the water is delivered through the drain canal it will enhance the waterway by increasing the amount and quality of water in the canal that will benefit the fish and wildlife. The reuse water in the unlined canal will also provide groundwater recharge for the Mesilla Bolson.

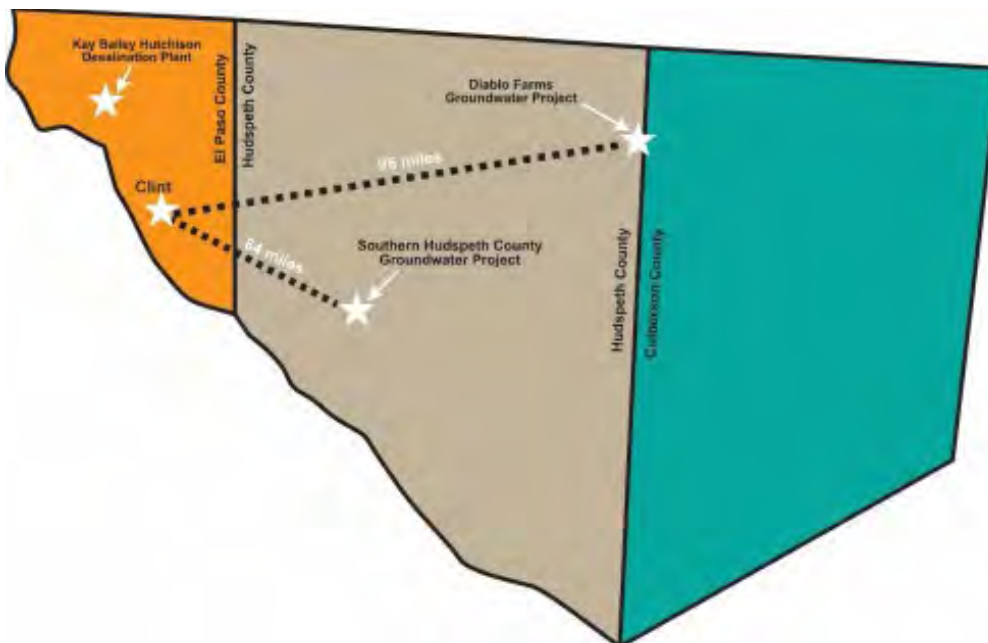
The Keystone Heritage Park and Desert Botanical Garden is a 52-acre wetland owned by the City of El Paso and located in close proximity to the Frontera Wastewater Lift Station. The wetland is very important to the region. Even though it is small, it provides habitat for a large number of diverse species including 22 rare birds such as the Yellow-Breasted Chat, Cactus Wren, and Hooded Oriole. The wetland truly is a desert oasis for migrating bird species and local wildlife. The wetland also contains an archaic archaeological site over 4,000 years old! The study will explore providing reuse water to the wetlands from the nearby lift station. As each of the 24 lift station sites are studied, the areas will be explored to determine if any additional opportunities exist for using the reuse water.



4. Describe the source water that will be considered for the project, including location, capacities, existing flows, treatment processes, and quantities of impaired water available to meet the new reclaimed, recycled, or desalinated water demands.

The source water for the project consists of the flow from lift stations located in the Hickerson WRF service area. The lift stations collect wastewater from approximately 121,000 people, 1,650 commercial acres, and 330 industrial acres which total about 11 million gallons per day annually. The lift stations are located throughout the northwest portion of El Paso as shown in the project location map on page 2. The study will determine which of the lift stations will be included in the project. Membrane Bioreactors (MBR) will be used to treat the wastewater flows at the lift station to the appropriate quality for discharge as surface water into the irrigation drain system. Each wastewater site will be analyzed to determine the appropriate size of MBR units, odor control treatment, and discharge of solids. As part of the study, the source water will be characterized at each site in order to design the appropriate treatment. Up to 11 million gallons per day will be investigated to use for reuse water in this study. The project is seeking to make up for at least 4 to 7 million gallons per day of groundwater reduction anticipated in the settlement of the Rio Grande Compact Litigation.

Map Showing Proposed Southern Hudspeth County Groundwater Importation Project and the Proposed Diablo Farms Groundwater Importation Project



Subcriterion 1b – Evaluation of project alternatives

1. Describe the objectives that all alternatives will be designed to meet. What other water supply alternatives and project alternatives will be investigated?

All alternative projects will be designed to meet the objectives of providing at least 4 to 7 million gallons per day of potable water as well as reducing the risk of a wastewater spill into the Rio Grande from the Frontera FM. The study project will be compared against 1) groundwater importation from Southern Hudspeth County; 2) importation and desalination of groundwater from Diablo Farms, and 3) no action. The water importation projects have appeared in the State Water Plan recommended project lists and will both provide the required amount of water but they will require importing the water a great distance as well as treatment.

The Southern Hudspeth County Groundwater Importation Project consists of the construction of a well field and water treatment plant in an area northeast of Fort Hancock, Texas. An average of 3,000 acre-feet per year (10,000 acre-feet per year during drought conditions) would be transported via a new 64-mile long pipeline to Clint, Texas, where it would connect to EPWater’s distribution system. Other infrastructure needs associated with the project are a treatment facility, pump stations, and storage tanks. Total capital costs of this alternative are estimated to be \$183,742,500.

The Diablo Farms Groundwater Importation Project would be constructed on EPWater-owned property in and Culberson county line that lies above the Capitan Reef Complex Aquifer. A new 95-mile long pipeline would deliver the water to Clint, Texas, where it would connect to EPWater’s water distribution system. The 2016 feasibility study estimated the cost of the Diablo Farms alternative to be \$300,551,000. However, based on the 2021 Region E State Water Plan, those costs have increased significantly to \$569,357,000. The project could supply up to an estimated 10,000 acre-feet per year. Total dissolved solids (TDS) can range from 850

to 1,500 mg/L. For this project, desalination may be required, especially if pumping allows more brackish water to intrude on fresh water supplies over time.

Both of the alternative projects would bring the new water source to the east side of El Paso and would still need to be pumped to the other side of town to make up for the loss of water within that distribution area. Neither of the alternatives reduces the risk of a sewage spill from the Frontera FM.

The study project itself has several alternatives that will be investigated. Types of MBR treatment alternatives will be considered at each lift station site. Conveyance alternatives will be considered to transfer the reuse water from the lift station sites to the UVWTP. Treatment technologies will be considered to treat and disinfect the surface water at the UVWTP before it is conveyed to potable water customers using the existing distribution system. The project is in its beginning stages and there have been no studies conducted to date and therefore no reliable cost data is yet available but construction cost is expected to be in the range of \$150 million.

2. Describe how the planning activities will develop project alternatives that have been or will be investigated. (water supply sources, reuse strategies, or treatment technologies)

The planning processes will aid in determining which lift stations will be chosen from the service region for the project to treat the flows and provide reuse water. The proximity of residential areas, the footprint needed for treatment systems, the simplicity of transporting reused water to the UVWTP, and the amount of flow available will all be taken into consideration when choosing the lift stations for the project. After the lift stations are selected, individual sizing and treatment options will be developed for each site. The study will compare implementing MBR technologies along with bioreactor basins, membrane tanks, and clean-in-place facilities and disinfection. If the lift stations are located in residential areas, MBR treatment facilities might be built to resemble homes and innovative odor control including bioscrubbers, carbon adsorption, and biofiltration will be considered.

Conveyance routes from the selected lift stations to the UVWTP and other reuse sources will be developed. The final conveyance segment to the UVWTP will consist of open channel flow in an irrigation ditch, but other conveyance means, including pressure flow may need to be developed as well.

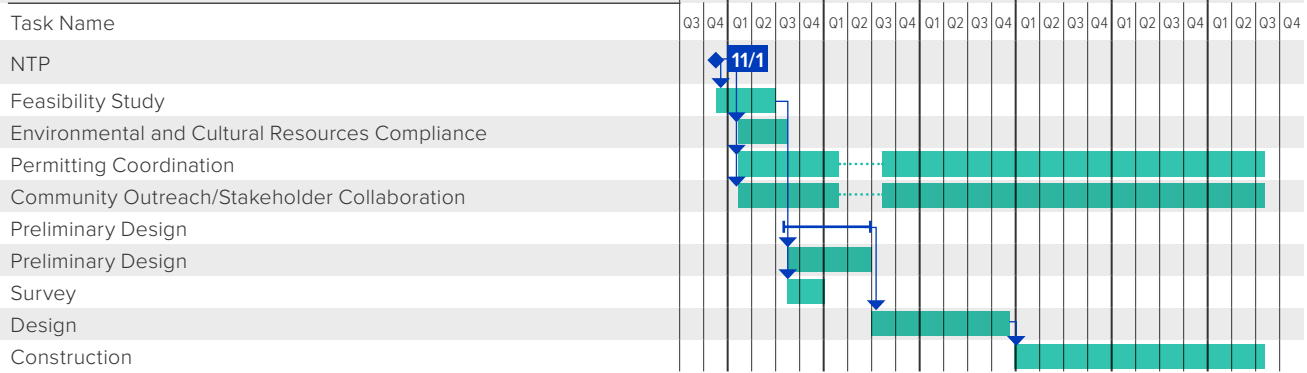
Finally, the additional treatment units necessary for the UVWTP to treat surface water in combination with the groundwater it already treats for arsenic removal will be determined. The study will compare two treatment train alternatives. The first concept would meet all treatment needs through advanced treatment. The additional treatment would consist of reverse osmosis, ultraviolet advanced oxidation, granular activated carbon and chlorine disinfection. The second concept would blend the reuse water with UVWTP influent to demonstrate a lower pathogen loading with blending. The treatment train would consist of treating the blended water with ultraviolet advanced oxidation, granular activated carbon and chlorine disinfection.

3. Provide a general description of the selected project including project features, benefits, anticipated costs, and analyses conducted.

The anticipated project consists of adding advanced treatment such as MBRs at existing lift stations within the Hickerson WRF service area. The water would be treated to the appropriate standard to discharge as surface water into an existing unlined irrigation drain canal. The water would then be conveyed to the UVWTP. The UVWTP currently treats groundwater for arsenic removal but it was designed to eventually be converted into a surface water treatment plant. The appropriate advanced treatment would be installed at the plant to treat the surface water in combination with groundwater. The treated water would be blended with additional groundwater and discharged into the potable water distribution system. The project will enable EPWater to reduce groundwater pumping to reduce impact to Rio Grande flows. Some of the reuse water would be sent to the Keystone Heritage Park and Desert Botanical Garden to enhance the wetlands and related ecosystem on the site. Finally, wastewater converted to reuse water would decrease the flow in the Frontera FM which will significantly reduce the risk of accidental discharge into the Rio Grande.

The project is in its infancy and was a solution identified as a result of two recent events: 1) Rio Grande Compact litigation that has had findings that pumping of groundwater near the river is impacting the Rio Grande flows; and 2) The accidental discharge of wastewater from the Frontera FM for a period of 5 months resulted in approximately 1 billion gallons spilling into the Rio Grande. Although the pipeline has been repaired, the risk of an unintentional discharge remains considerable due to its proximity to the Rio Grande and the amount of wastewater it transports.

Preliminary Project Schedule



EVALUATION CRITERION 2 – STRETCHING WATER SUPPLIES

1. Describe the potential for the project to reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies.

This project will allow EPWater to postpone development of new non-recycled water supplies, such as increased local groundwater usage in the Hueco and Mesilla Bolsons, water importation, and groundwater desalination projects listed in the Texas Water Development Board (TWDB) 2022 Region E 50-Year Water Plan. The project presents a solution to reduce the impact to surface and groundwater supplies during droughts and other climate change events affecting water supplies. It will allow EPWater to be less reliant on groundwater pumping in the Mesilla Bolson and reduce usage of Rio Grande Compact water. This project demonstrates ultimate water recycling: once pumped or diverted from its source, the water remains in the system. This water supply is sustainable as long as there is a resident community, or source, that needs water. EPWater plans to reduce pumping in the Canutillo Wellfield to minimize impact on the river flows. This will reduce competition for Rio Grande Project water by offsetting some groundwater with recycled water and increasing capacity through water reuse.

2. Describe the potential for the project to alleviate pressure on existing water supplies and/or facilities.

This project will alleviate pressure on EPWater's current water sources. EPWater follows a conjunctive use plan by balancing water from Reclamation's Rio Grande Project water supplied by the river, two underground aquifers, and reclaimed water from



its wastewater plants. The surface water allotment from Reclamation's Rio Grande Project is the sole source of water used to operate the two surface water treatment plants. In a good year, EPWater can treat about 60,000 acre-feet of surface water with its existing facilities, which allows EPWater to use less groundwater during the surface water supply season.

This project will conserve water from the region's Mesilla aquifer by using an alternative raw water source. The project is a water reuse project; the water has already been used (after initial diversion from the Rio Grande or withdrawal from an aquifer) and is available to be used again. The amount of water produced by the project reduces the need to withdraw the same amount of water from the region's aquifers and the Rio Grande and expansion

of capacity will be created as a result of reuse. The project will also alleviate pressure on Reclamation's surface water allotments through the Rio Grande Project, which directly benefits Reclamation.

3. Describe the potential for the project to make water available to address a specific concern.

Rio Grande Compact litigation has gone on for over nine years and deals with how the Bureau of Reclamation allocates water between Texas, New Mexico, and Colorado. At the heart of the case is how much groundwater pumping near the river impacts the river flows. With these concerns in mind, EPWater is seeking to reduce groundwater pumping by 5,000 to 8,000 acre-feet per year. The UVWTP will have unused capacity as a result of the reduced groundwater pumping and EPWater will have difficulty meeting both current and future demands.

This project will make water available to address this anticipated shortage and additional water to serve the growing population. Treatment will be provided at individual lift stations in the area surrounding the UVWTP in order to produce reuse water. The reused water will be transported as surface water to the UVWTP where additional advanced treatment will be provided to treat to drinking water quality. The water will then be delivered to customers using the existing distribution system.

4. Describe the potential for the project to help create additional flexibility to address drought.

During a severe drought, the Far West Texas Regional Planning Group has determined that the available surface water supply for El Paso County is only 10,000 acre-feet/year. With this project, EPWater will have a new alternative source of water. During times of drought and high demand in the summer months, the project will decrease dependence on surface water usage by supplying a new guaranteed water supply. The project will lessen the burden on the Mesilla aquifers by

allowing the reduction of groundwater pumping. The project will be drought resistant and unaffected by climatic conditions, unlike the Rio Grande supply which is highly impacted by drought conditions.

EVALUATION CRITERION 3 – ENVIRONMENT AND WATER QUALITY

1. Describe the potential for the project to improve the quality of surface water or groundwater.

The project will treat wastewater to the appropriate level for discharge as surface water. The water will be discharged into an irrigation drain. Irrigation drains are used to drain or remove excess water from irrigated agricultural land. The irrigation water is supplied by the Rio Grande Project water. The irrigation drain is owned and operated by the El Paso County Water Improvement District No. 1 (EPCWID#1). Irrigation drain water is high in total dissolved solids (TDS) and because it drains from agricultural land it can have E. coli measurements. The reused water produced from the wastewater lift stations will be treated to a level that exceeds the quality of the drain water so that both the quality and quantity of water in the canal are improved by the project.

2. Describe the potential for the project to improve effluent quality beyond levels necessary to meet State or Federal discharge requirements.

For permitting of treated wastewater to the unlined irrigation drain which is typically dry much of the year within about 5 miles of the point of discharge, the drain would be designated as an unclassified intermittent stream without perennial pools. Based on this classification, aquatic life use is minimal, and the applicable dissolved oxygen standard is 2.0 mg/L (24-hour average) and 1.5 mg/L (8-hour minimum). Expected effluent discharge water quality limits include 20 mg/L BOD, 4 mg/L DO, and TDS less than 6,000 mg/L. Advanced treatment processes such as MBRs are expected to produce effluent quality that far exceeds these minimum requirements based on classification of the receiving stream.

3. Describe the potential for the project to improve flow conditions in a natural stream channel.

By reducing the groundwater pumping near the Rio Grande, there is likely to be an increase in flows and flow conditions in the Rio Grande, benefitting the Rio Grande Project. The project will enhance flow conditions in a man-made canal that eventually flows into the Rio Grande. However, it is anticipated that most of the water that is put into the canal will eventually be removed and treated for drinking water use. It is anticipated that the project will also provide reused water the Keystone Heritage Park and Desert Botanical Gardens to enhance the wetlands, especially in times of drought when water at the wetlands is scarce.

4. Describe the potential for the project to restore or enhance habitat for non-listed fish and wildlife species.

The project has the potential to enhance habitat for non-listed fish and wildlife species. By providing surface water in the irrigation canal, EPWater is providing seasonal habitat to local resident and migratory species that may otherwise have difficulty finding water sources in the surrounding desert habitat. The irrigation drains contain water during and around irrigation season but can become dry during drought periods and when irrigation water is not being supplied. This project will produce a steady supply of water year-round. Besides bird species, many rodent and reptile species call the canal home. Additionally, reuse water will be provided to wetlands located at the Keystone Heritage Park and Desert Botanical Gardens. This year-round source of water

will help in the Park's mission to restore and enhance the wetlands and ensure the wetlands remains a prime habitat for migratory birds and other wildlife species, even in times of drought. The wetland area became almost completely dry in the summer of 2022 according the park staff. Most of the wildlife left from the habitat and did not return until sufficient water was present again. In discussing the project with Keystone Heritage staff, they voiced their enthusiasm for the possibility of receiving a year-round source of water. The water would be used to enhance features within the botanical gardens such as the arroyo streams and the small water features throughout. The reuse water would ensure that migratory birds always have a place to stop in their trip through the Chihuahuan desert because the pond area would always be present.





White-faced Ibis and Heron spotted at Keystone Heritage Park (photos courtesy of Nancy Swanson).



5. Describe the potential for the project to provide water or habitat for federally listed threatened or endangered species.

The project has the potential to provide water and enhance habitat for several federally listed threatened or endangered species. Project water will be transported in the Vinton and Nemexas Drain canals. The canals consist of brackish water drained from agricultural fields. The project water will increase the volume of water and improve the quality, resulting in an enhanced habitat. The drains are unlined earthen canals generally filled with vegetation. In reviewing the federally listed species in El Paso County, there are several which appear to favor this habitat. The White-Faced Ibis (*Plegadis chihi*) is a bird that favors irrigated fields and will attend brackish and saltwater habitats. The Southwest Willow Flycatcher (*Empidonax traillii extimus*) is a bird that prefers habitat of thickets of cottonwood along desert streams. The Sprague's pipit (*Anthus spragueii*) is a bird that prefers agricultural fields during its migratory path. The desert pocket gopher (*Geomys arenarius*) is a small mammal that lives along the Rio Grande in the El Paso area and is common along irrigation ditches.

The muskrat (*Ondatra zibethicus*) is found in slow moving bodies of water in areas with cattail and dens in shallow vegetated water and is primarily found in El Paso. (Source: tpwd.texas.gov/gis/rtest/ February 14, 2023).

Keystone Heritage Park is often visited by rare species. These include the "Black Bellied Whistling Duck", "Common Golden Eye", "Common Merganser", "Surf Scooter", "Merlin", "American Bittern, and the "Virginia Rail." A recent construction project temporarily routed stormwater flows to the wetlands. The stormwater flows improved the water quality of the wetlands which is naturally high in salinity. Keystone Heritage staff offered anecdotal evidence that the additional water with increased quality brought more White-Faced Ibis to the site than they had ever seen before. They are excited about the opportunity to have a year-round water source and believe it will have immeasurable benefits to the habitat and wildlife.

EVALUATION CRITERION 4 –DEPARTMENT OF THE INTERIOR PRIORITIES

1. Climate Change

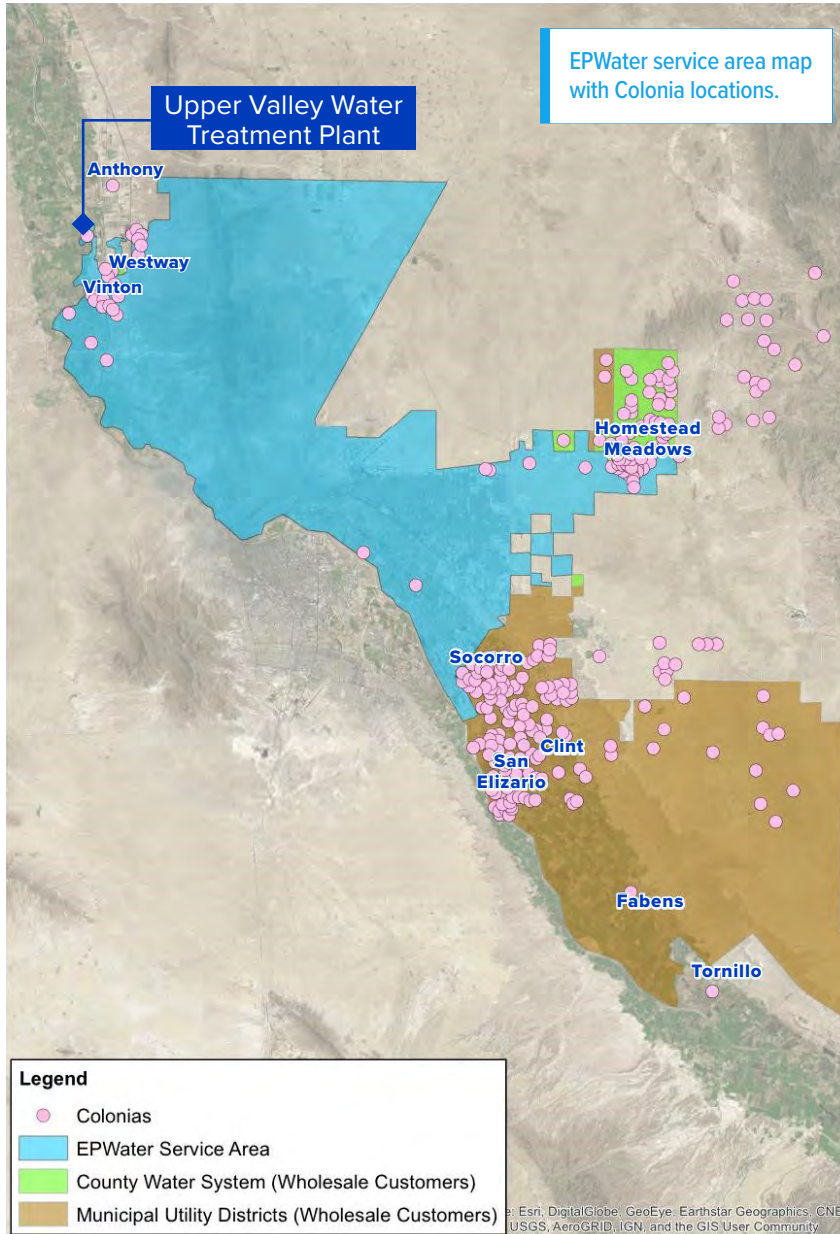
Climate change and documented temperature increases are causing a number of drought conditions for regional sources. A temperature increase of several degrees is expected by the end of the century, which increases reservoir evaporation and causes annual snowmelt and runoff to decline. Projected decreases in precipitation will increase the demand for irrigation water (EPA, What Climate Change Means for Texas, 8/2016). To address drought conditions, EPWater has historically relied on the conjunctive water supplies of groundwater and treated surface water. This project strengthens water supply sustainability to increase resilience to climate change by providing a new and completely sustainable source of water by providing drinking water from wastewater. Additionally, the project’s treatment technology has been cited as a solution to address likely drought problems, such as reduced precipitation and snowmelt that affect the Elephant Butte Reservoir's water levels. The project will replace groundwater pumping as well as surface water affected by drought. It will allow EPWater to reduce groundwater usage in both non-drought and drought years.

2. Disadvantaged or Underserved Communities

The project will serve a rural and economically-disadvantaged community. EPWater's service area includes 95 percent of the population of El Paso County, including retail and wholesale customers. The water produced from this project will enter the distribution system and could supply customers in any part of the service area because of how interconnected the EPWater system is, although most of the water supplied by the UVWTP will go to the areas surrounding the plant including Anthony, Vinton, and Westway. The location of the project is on the far northwest side of El Paso County, which is proximate to underserved communities known as Colonias. Colonias are communities that may lack basic infrastructure and safe, sanitary housing. The figure on the following page shows the location of colonias within the project area. The table below shows the characteristics of the Anthony, Vinton, and Westway communities. In Texas, a disadvantaged community is defined as a community with a median household income that is not greater than 75 percent of the state's median household income. Therefore, a disadvantaged community would have an annual median household income of not more than \$50,222 and includes Westway and Vinton. The median household income in El Paso County of \$51,000 barely exceeds that amount.

Community	Population	Families % below Poverty Level	Annual Median Household Income	Limited English Speaking Households	% Disabled	% Without Healthcare
Vinton	2,684	17%	\$55,461	90%	11%	30%
Westway	3,811	33%	\$28,673	61%	16%	24%
Anthony	3,671	24%	\$43,182	32%	11%	20%

An estimated 20 percent of individuals live below the poverty level in El Paso County (US Census Bureau). EPWater has secured grant funding for or assisted the County of El Paso with engineering and construction to provide Colonias and other disadvantaged community areas with water infrastructure or sewer services. These neighborhoods have benefited from Texas Water Development Board (TWDB), USDA Rural Development, TDA, NADBank, and other funding.



3. Tribal Benefits

The home of the Tigua tribe is located in the Lower Valley area of the city and county of El Paso. The Ysleta Del Sur Pueblo is a U.S. federally recognized Native American tribe and sovereign nation. The tribal community, known as “Tigua,” established Ysleta Del Sur in 1682.

The population of the Pueblo is 3,462 citizens and descendants. Water access and irrigation rights were first guaranteed to the Tiguas in 1642, when Spain gave the Tiguas rights to irrigate Tigua lands and made these rights inviolate. Today, the Pueblo residents receive their drinking water from EPWater, which supplies water directly from its distribution system. **The Tiguas have a direct connection to Reclamation because they hold surface water rights to Rio Grande Project Water, provided by Reclamation** and supplied through El Paso County Water Improvement District No. 1. The project reduces EPWater’s dependence on Reclamation’s provided surface water, which in turn **helps Reclamation meet its obligations to other users such as the Tiguas**. EPWater shares Reclamation’s commitment to uphold the Tiguas’ rights to irrigation and other water rights. As part of that commitment, this project will support the Tigua community by improving their water system reliability and increasing their water supply.



EVALUATION CRITERION 5 – WATERSHED PERSPECTIVE

1. Will the proposed project implement a regional or state water plan or an integrated resource management plan?

The proposed project is relatively new in both terms of its need and the problems it helps to solve so it was not able to be included in the last state water plan update. EPWater plans to include the project in the next update to the Texas Water Development Board State Water Plan. The project does not implement one of the listed projects from the State Water Plan, but it does help to delay implementation of two of the listed projects which are both large-scale groundwater importation projects which include a 70-mile pipeline and inland desalination.

2. Will the proposed project help meet the water supply needs of a large geographic area, region, or watershed?

EPWater is the designated lead planner for El Paso County and has the lead role in the Far West Texas (Region E) Planning Group. **El Paso County's population makes up 97 percent of Region E's total population.** EPWater's service area covers 95 percent of El Paso County's population. EPWater serves a population of approximately 865,000 through retail connections and wholesale water. El Paso shares the same water sources as the neighboring Ciudad Juarez, Mexico, which has an estimated population of over 1.5 million, and with portions of New Mexico. Using previously used water, this project will create an entirely new water supply. The project will supply 5,000 to 8,000 acre-feet per year and will offset a reduction in groundwater pumping and increase overall capacity at the plant to serve growing demand. This new supply will allow EPWater to reduce its reliance on groundwater. The bordering communities in New Mexico and Mexico rely on the same groundwater aquifer for their drinking water supply. As such, this project will benefit Juarez, Mexico; and areas of New Mexico by conserving shared resources.

3. Will the proposed project promote collaborative partnerships to address water-related issues?

Successful planning, design, and implementation of this project will require close collaborative partnerships with project stakeholders and EPWater is excited to begin this cooperative project as they persist in building relationships with agencies and community members. Stakeholders will include El Paso County Water Improvement District No. 1 (EPCWID#1), the City of El Paso, Texas Commission of Environmental Quality, and the community. El Paso County Water Improvement District No. 1 (EPCWID#1) owns and operates the irrigation structures, including the drains, within the project area. EPWater has a long, successful history or collaboration with EPCWID#1. The study phase will provide the opportunity for EPWater and EPCWID#1 to discuss conveyance of reuse water through the drains. This mutually beneficial plan will allow EPWater to convey reuse water to the UVWTP and will recharge groundwater through the unlined open-channel drains and provide additional maintenance and cleaning for the drains. EPWater will collaborate with the City of El Paso as the owner of Keystone Heritage Park and Desert Botanical Gardens as well as the Keystone Board and Keystone Advisors to determine the quantity, quality, and location of reuse water as well as developing educational kiosks for the park. The project will ultimately provide a means for EPWater to lessen groundwater pumping and do their part to work collaboratively with New Mexico and Colorado to share Rio Grande Project Water in a fair and equitable way.



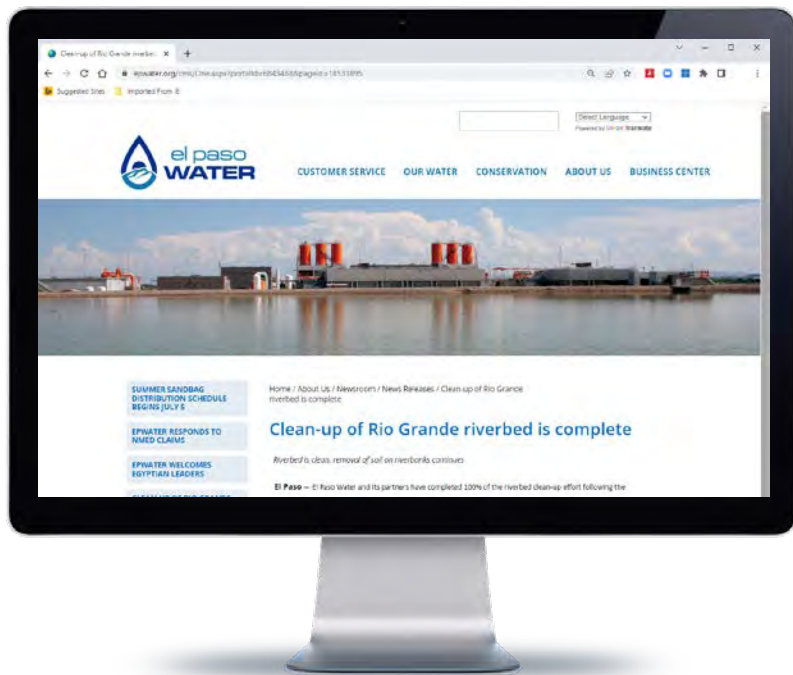
4. Will the proposed project include public outreach and opportunities for the public to learn about the project?

There are three main components to this project that EPWater plans to engage the public using various outreach events.

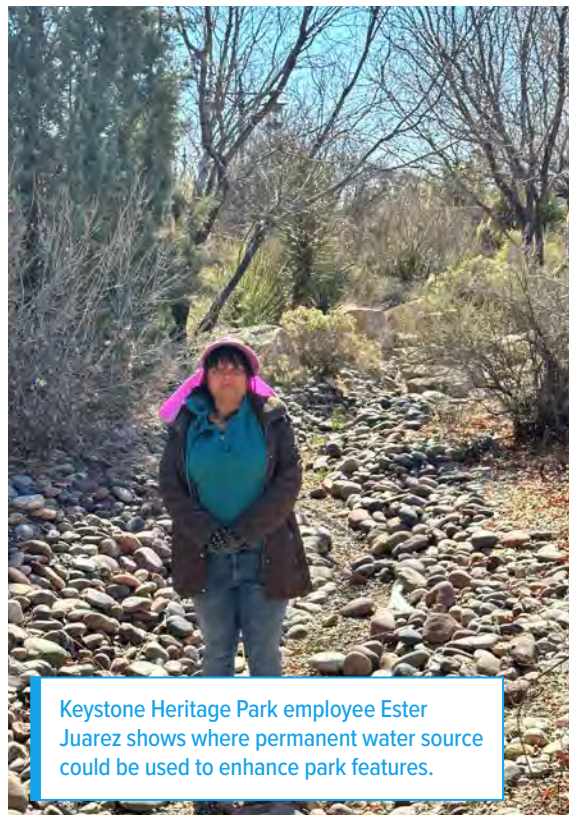
1. The rupture of the Frontera FM and the resulting sewage spill into the Rio Grande was a widely covered news event, both locally and nationally. The EPWater Communications Department provided regular updates to the public to let them know how they were addressing the situation. EPWater would like to reduce the risk of a similar event with the Frontera FM happening in the future and they want the community to know they are addressing the problem and protecting their river. This project will help reduce the risk and EPWater plans to share news of this innovative project as they move through the study, design, and construction phases.



2. Bringing reuse water to the Keystone Heritage Park Wetlands will provide many opportunities to engage the public and provide educational experiences in the park. The educational kiosks to be used in the park will be developed throughout the study and design period in collaboration with Keystone Heritage Park Wetlands. The kiosks will explain the natural water cycle and the urban water cycle and how we help to enhance our environment with human interactions to the one water cycle.
3. EPWater plans to begin reaching out to the public when they begin the study phase of the project to receive input from the communities around the lift stations where treatment will occur. Many of the lift stations are located in residential areas. The community will be engaged in order to explain the innovative project and how their wastewater will be treated to reuse water right in their community. The community will be engaged to provide input on design elements such as aesthetics. For instance, residential area may want the treatment facilities designed to fit into the neighborhood.
4. This project will enable more positive engagement with New Mexico stakeholders. The Rio Grande Compact litigation has focused significantly on New Mexico groundwater pumping near the river, but with this project, Texas has the ability to show it too is vested in solutions that that protect Rio Grande flows and the overall Rio Grande Project.



EPWater news release updates public on Frontera FM response.



Keystone Heritage Park employee Ester Juarez shows where permanent water source could be used to enhance park features.

Project Budget

FUNDING PLAN AND LETTERS OF COMMITMENT

EPWater’s cash and in-kind contributions will be provided from revenues from current year budget FY 2023-24 and from the proposed future Capital Improvement Project (CIP) budgets. If the project is deemed successful and passes the feasibility and study phases, this project will replace a wastewater treatment plant that is planned for in the 2025 CIP budget. The design and construction budget for the planned wastewater treatment plant should be sufficient for this project and additional funds may be planned for as appropriate.

BUDGET ESTIMATE FOR FEASIBILITY STUDY, PRELIMINARY DESIGN, AND ENVIRONMENTAL COMPLIANCE PHASES

CONTRACTS			
CONTRACTOR NAME	DESCRIPTION OF SERVICES	COST	DESCRIPTION OF COST ESTIMATE
TBD	Feasibility Study to obtain a congressionally authorized project	\$500,000	Estimate is based on similar projects conducted by EPWater.
TBD	Environmental and cultural resources study and compliance	\$150,000	Estimate is based on similar projects conducted by EPWater.
TBD	Planning – conceptual design and regulatory coordination	\$1,300,000	Estimate is based on similar projects conducted by EPWater.
TBD	Community outreach efforts during planning phase to assist EPWater staff	\$50,000	Estimate is based on similar early outreach efforts conducted by EPWater for the AWPf project.

BUDGET NARRATIVE

Contract Narratives:

Consultants will be hired to conduct the feasibility study, environmental compliance study, preliminary design and regulatory coordination and community outreach assistance. Cost estimates are based on similar recent contracts that EPWater has procured and negotiated.

Feasibility Study Contract – An engineering firm will be selected using a qualifications-based procurement method and the profit will be negotiated as a separate element of the price. EPWater allows at most a 10 percent profit on study phase projects. The selected consultant will prepare a feasibility study to meet USBR requirements.

Environmental & Cultural Resources EIS and Compliance Study Contract – An environmental engineering firm will be selected using a qualifications based procurement method and the profit will be negotiated as a separate element of the price. EPWater allows at most a 10 percent profit on environmental compliance projects. The selected consultant

Preliminary Design & Permit Coordination Contract – An engineering firm will be selected using a qualifications-based procurement method and the profit will be negotiated as a separate element of the price. EPWater allows at most a 12 percent profit on design projects. The selected consultant will develop a preliminary design for the project including but not limited to: selection of treatment technologies, wastewater lift station site selections for reuse, routing analysis, survey, cost estimate, and regulatory coordination.

Community Outreach Contract – A communications firm will be selected using the appropriate procurement method to assist with community relations, community outreach, and public involvement. The firm will be used to supplement the work of EPWater communications staff. The firm will assist with public meetings, and may lead survey efforts and assist in preparing media briefs.

Construction Costs – This study will develop the expected construction costs after the project is defined during the feasibility and preliminary design phases by the consultant selected for the Preliminary Design contract. At the current pre-planning level of the project, EPWater estimates that the project will be in the range of \$150 million.

BUDGET SUMMARY

Figures in this summary table are calculated from entries made in subsequent categories, only blank white cells require data entry.

6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$0		
b. Fringe Benefits	\$0		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$2,000,000		
g. Construction	\$0		
h. Other Direct Costs	\$0		
i. Total Direct Costs	\$0		
i. Indirect Charges	\$0		
Total Costs	\$2,000,000	\$1,000,000	\$1,000,000
	Cost Share Percentage	50%	50%

Required Permits or Approvals

This project will require close and careful coordination with regulatory agencies throughout the planning and design of the project. The Texas Commission on Environmental Quality (TCEQ) is the state's regulatory agency that oversees permitting and compliance for all municipal drinking water supply and treatment facilities. TCEQ will be engaged early on in the process to make sure the permit processes are followed. At this early stage in the planning process it is assumed that EPWater will require either a major amendment to the UVWTP permit or a new permit because the plant will be converted from a groundwater treatment to surface water treatment plant. Regulatory milestones for new surface water treatment plants are as follows:

- Source water characterization 30 TAC 290.41.
- Pilot testing any innovative technologies per 30 TAC 290.42(g).
- Submittal of a Preliminary Engineering Report.
- Provision of a UV validation study if UV is used to achieve pathogen inactivation credits.
- Concentration-Time (CT) Study submittal.
- Provision of Corrosion Control Study.
- Final Engineering Report, Plans, and Specifications submittal.
- Full Scale Verification Test (FSVT) submittal.
- Submittal of the FSVT report.
- Submittal of standard operating procedures and training documentation.
- Submittal of final alarm and shutdown triggers with required action and communication protocols.
- Texas Pollutant Discharge Elimination System (TPDES) permit application if plant residuals are discharged to surface water.
- 210 authorization for reclaimed water diversion. A discharge permit will likely be required to discharge treated reuse water into the irrigation drain. An authorization to reuse reclaimed water will be required.

Conflict of Interest Disclosure

No potential conflict of interest exists with this application.



9070 N. VINTON RD.

EL PASO WATER UTILITIES

UPPER VALLEY

WATER TREATMENT PLANT



Project Narrative

Applicant Category and Eligibility: EPWater is seeking funding for Funding Group 1. EPWater is an eligible applicant because of its status as a local authority and location in the Western United States.

Goals: EPWater wants to secure funds for a feasibility study, an assessment of the alternatives, a preliminary design, and environmental impact study with compliance analysis. The study would aid EPWater in better comprehending engineering alternatives, environmental effects, and project scope, as well as in calculating costs and benefits and coordinating federal and state funding prospects. The project's objectives are to provide reuse water for drinking water that will meet growing demand in West El Paso, delay groundwater importation, provide groundwater recharge through seepage, reduce groundwater pumping, and supply reuse water for wetlands areas. By lowering the possibility of a sewer line spill close to the river releasing raw sewage into the Rio Grande, the project will also help protect it.

Approach: EPWater owns and operates the Upper Valley Water Treatment Plant (UVWTP), an arsenic treatment facility that obtains its water supply from multiple groundwater wells. EPWater seeks to limit the amount of groundwater used to supply this facility in order to preserve river flows managed by the Rio Grande Project. The plant was constructed with the intention of converting into a surface water treatment facility in the future by adding additional processes. EPWater also owns and operates the sewer pipeline known as the Frontera Force Main (Frontera FM). This large-diameter sewer line receives flow from northwest El Paso and empties into the John T. Hickerson Water Reclamation Facility (Hickerson WRF). An estimated 1 billion gallons of raw sewage were discharged into the Rio Grande over the course of five months in 2022 as a result of multiple catastrophic failures at the Frontera FM. The line has generally been replaced, but because it is the only sewage line that carries flow from the

northwest to the Hickerson WRF along the Rio Grande, it still carries a risk of failing and spilling into the river.

El Paso intends to examine the viability of reusing water by diverting wastewater flow from a series of lift stations that feed into the Frontera FM and treat the wastewater for discharge as surface water. The fuel for the Frontera FM comes from about 21 lift stations. Membrane bioreactor (MBR) treatment units would be constructed at each lift station to treat a portion of the wastewater flow prior to discharging it to an existing irrigation drain, the Vinton drain, located close to the UVWTP. Treatment equipment at the UVWTP would be upgraded so as to utilize recycled surface water from the Vinton drain as feed water, while simultaneously recharging groundwater through the unlined drain.

To satisfy expected future demand driven by local growth, the water would be cleaned to potable standards and provide a fresh water source to more than offset the reduction in groundwater extraction. The project would also significantly reduce the possibility of a future Frontera FM spill into the Rio Grande by diverting the majority of the wastewater flow from the sewer pipeline. Some reuse water from the MBR facilities would be routed to the Keystone Heritage Park and Desert Botanical Gardens to improve facility operations and enhance the ecosystem and habitat of the 52-acre park.

Before moving into the design phase, the study intends to assess three key project elements: the siting and sizing analysis for the MBR treatment units, the routing study to supply reuse water to the UVWTP, and the alternatives analysis for the UVWTP treatment units. To establish where there is space for the MBR units to be placed and which lift stations give the maximum flow, the lift station flows and locations will be investigated. Many of the lift stations are located in residential neighborhoods and have limited space available. MBR units can be concealed to blend in with the appearance of a conventional home and can be fitted within extremely small footprints. After the wastewater is treated to surface water discharge quality, the solids will continue to flow in the existing sewer system to the Hickerson WRF. The routing analysis will examine the local open channel drain network and determine whether a system of pipelines and

pumps would be required for some of the flow.

The Keystone Heritage Park and Desert Botanical Gardens is located along the Frontera FM. The wetlands will be evaluated to determine if a portion of the reuse water can be sent to the wetlands to enhance the ecosystem. EPWater will collaborate with the owner of the Keystone Heritage Park, the City of El Paso, during the study phase.

The treatment study will evaluate the existing UVWTP and the expected surface water quality that would be received at the plant. Different treatment and disinfection technologies will be evaluated to determine the best treatment train to provide high quality drinking water at the most economical price. The study will compare two treatment train alternatives. The first concept would meet all treatment needs through advanced treatment.

The additional treatment would consist of

reverse osmosis, ultraviolet advanced oxidation, granular activated carbon and chlorine disinfection. The second concept would blend the reuse water with UVWTP influent to demonstrate a lower pathogen loading with blending. The treatment train would consist of treating the blended water with ultraviolet advanced oxidation, granular activated carbon and chlorine disinfection.

El Paso County Water Improvement District No. 1 (EPCWID#1) owns and operates the irrigation structures, including the drains, within the project area. EPWater has a long, successful history or collaboration with EPCWID#1. The study phase will provide the opportunity for EPWater and EPCWID#1 to discuss conveyance of reuse water through the drains. This mutually beneficial plan will allow EPWater to convey reuse water to the UVWTP and will recharge groundwater through the unlined open-channel drains and provide additional maintenance and cleaning for the drains.



Photo of the wetlands at Keystone Heritage Park
The study phase will evaluate if reuse water can be sent to the wetland to enhance the habitat.



Photo of the Vinton Drainage Canal
The study phase will evaluate the multiple project areas involved in this study and recommend environmental

Project Budget

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c. Travel	\$0		
e. Supplies	\$0		
g. Construction	\$0		
i. Total Direct Costs	\$0		
Total Costs	\$2,000,000	\$1,000,000	\$1,000,000
	0	0	0

VERONICA ESCOBAR
16TH DISTRICT, TEXAS
HOUSE COMMITTEE ON THE JUDICIARY
HOUSE COMMITTEE ON ETHICS
HOUSE ARMED SERVICES COMMITTEE
DEMOCRATIC POLICY & COMMUNICATIONS COMMITTEE
Co-CHAIR



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DEMOCRATIC WOMEN'S CAUCUS
DEPUTY WHIP
CONGRESSIONAL PROGRESSIVE CAUCUS
CONGRESSIONAL HISPANIC CAUCUS
NEW DEMOCRAT COALITION

February 28, 2023

The Honorable Camille Calimlim Touton
Commissioner
U.S. Bureau of Reclamation
1849 C Street NW
Washington, D.C. 20240

Dear Commissioner Touton:

I am writing to express to you and the U.S. Bureau of Reclamation my staunch support for the WaterSMART grant application from El Paso Water to conduct a study to determine the feasibility of expanding the Upper Valley Water Treatment Plant (UVWTP).

The UVWTP is owned and operated by El Paso Water and is an arsenic treatment facility that draws its supply water from numerous groundwater wells. El Paso Water is seeking to investigate a water reuse solution to expand this facility and is seeking the Bureau of Reclamation's assistance for its feasibility study.

The proposed study will review a project to meet the following three objectives: (1) Meet the growing demand for water supply in West El Paso. (2) Change groundwater use to reduce the impact on river flows managed by the Rio Grande Project. (3) Provide relief to the Frontera Force Main (FFM) sewer pipeline, which currently collects and conveys all sewage on the west side of El Paso to the Hickerson Wastewater Treatment Plant.

El Paso Water intends to investigate the feasibility of reusing water by diverting wastewater flow from a series of lift stations that feed into the FFM and treating the wastewater for discharge as surface water. To satisfy expected future demand driven by local growth, the water would be cleaned to potable standards and provide a fresh water source to more than offset the reduction in groundwater extraction. The project would also significantly reduce the possibility of a future spill into the Rio Grande by diverting much of the wastewater flow from the sewer pipeline.

El Paso Water is a recognized leader in water innovation. I ask that you give your full and fair consideration, consistent with applicable laws and regulations, to El Paso Water's grant application.

Sincerely,

A handwritten signature in cursive script that reads "Veronica Escobar".

Veronica Escobar
Member of Congress



OSCAR LEESER
MAYOR

February 21, 2023

The Honorable Camille Calimlim Touton
Commissioner
United States Bureau of Reclamation
1849 C Street NW
Washington, D.C. 20240

RE: USBR Funding Opportunity #R23AS00076 WaterSMART: Water Recycling and Desalination Planning

Dear Commissioner Touton:

I want to express my strong support for El Paso Water's WaterSMART grant application to fund a feasibility study for the expansion of the Upper Valley Water Treatment Plant in El Paso, Texas.

The potential expansion of the treatment plant using recycled water would help EPWater achieve two important objectives for El Paso's economic development: increase our water supply for a growing population; and provide relief to the Frontera Force Main wastewater system, which is the main wastewater pipeline serving a majority of El Paso's West Side.

The prosperity of our desert city depends on our ability to manage our precious water resources and develop innovative solutions to meet the increased demand of our growing population. Expansion of the Upper Valley Water Treatment Plant through recycling water will play a key role in helping us reach these aims and maintain our viability in an arid region.

In 2021, El Paso Water experienced a catastrophic collapse of the Frontera line, causing millions of gallons of untreated wastewater to spill into the Rio Grande, in violation of the utility's permit with the Texas Commission on Environmental Quality. While EPWater is nearing completion of a major project to replace the Frontera Force Main system, it is prudent for the utility to begin to divert some of the flows carried in the system in order to relieve overreliance on the crucial pipeline, avoid compliance violations, and protect the environment. This novel project will be important to increasing the resiliency of the wastewater system and continuing to provide dependable wastewater service,

As a member of the Public Service Board, which is the governing body of EPWater, I have full confidence in the utility's ability to successfully administer this exciting proposal, and I ask that you please give full consideration to its application for USBR funding.

Sincerely,

A handwritten signature in black ink, appearing to read "Oscar Leeser". The signature is fluid and cursive, with a large initial "O" and "L".

Oscar Leeser
Mayor



RICARDO SAMANIEGO
El Paso County Judge

February 24, 2023

The Hon. Camille Calimlim Touton
Commissioner
United States Bureau of Reclamation
1849 C Street NW
Washington, D.C. 20240

RE: USBR Funding Opportunity #R23AS00076 WaterSMART: Water Recycling and Desalination Planning

Dear Commissioner Touton:

As El Paso County Judge, I have seen firsthand numerous projects on which the County and El Paso Water have successfully worked together to serve the people of this county. With this knowledge of their ability to deliver projects that greatly benefit our community, I write to express my full support for EPWater's application for WaterSMART grant funding for the Upper Valley Water Treatment Plant Expansion Feasibility Study.

As we see population growth in both the City and County of El Paso, it is imperative for us to secure the additional water resources necessary to meet our community's needs. The expansion of the Upper Valley Treatment Plant using recycled water will be an important step in expanding capacity of the plant while at the same time reducing our groundwater use in the area of the plant to limit its impact to flows in the Rio Grande. This will also help the resilience of the Rio Grande Project to meeting the needs of downstream users.

The expansion will also increase the use of reclaimed water, which is an innovative approach to meeting our water needs and one that EPWater has pioneered for decades. By diverting some wastewater flows to the treatment plant and treating it to potable water standards, EPWater will be able to effectively utilize this newly reclaimed water to offset the reduction of groundwater pumping.

EPWater is a reliable partner to the County of El Paso. The utility has always reached beyond barriers to serve El Paso County residents, including those most in need in the underserved areas that sit just beyond the City's boundaries. Their service and commitment to our community is integral to our ability to continue to attract new residents, businesses, and endeavors. I ask that you strongly consider EPWater's application for funding.

Sincerely,

Ricardo A. Samaniego
El Paso County Judge

RESOLUTION

A RESOLUTION AUTHORIZING THE PRESIDENT/CEO'S SUBMISSION OF A GRANT APPLICATION TO THE U. S. BUREAU OF RECLAMATION (USBR) UNDER FUNDING OPPORTUNITY NUMBER R23AS00076 "WATERSMART: WATER RECYCLING AND DESALINATION PLANNING" IN THE AMOUNT OF \$1,000,000 IN GRANT FUNDS FOR A FEASIBILITY STUDY FOR THE UPPER VALLEY WATER TREATMENT PLANT EXPANSION; AUTHORIZE \$1,000,000 IN UTILITY MATCHING FUNDS; AND FURTHER AUTHORIZE THE PRESIDENT/CEO TO PROVIDE AND SIGN ANY OTHER DOCUMENTS NECESSARY IN CONNECTION WITH THE GRANT APPLICATION, GRANT AGREEMENT AND ACCEPTANCE OF THE FUNDS FOR THIS PROJECT.

WHEREAS, the El Paso Water Utilities Public Service Board (EPWater) was established on May 22, 1952, by Ordinance No. 752 of the City of El Paso for the purpose of providing potable water and wastewater collection and treatment for the City of El Paso, and

WHEREAS, EPWater has historically worked with grant agencies to obtain funds for the research and implementation of water treatment, water conservation, water reuse and recycling, membrane treatment processes, and potable water and energy improvement projects to benefit the residents of the City and County of El Paso, to improve the quality and reliability of their water services, and to promote the conservation of water and energy within the service area of El Paso; and

WHEREAS, EPWater has historically applied for and received U.S. Bureau of Reclamation grant funds for numerous water resource, conservation, infrastructure construction, reverse osmosis, water treatment research, supply, monitoring, and reclaimed water projects; and

WHEREAS, USBR has released Funding Opportunity R23AS00076 "WaterSMART: Water Recycling and Desalination Planning" and is soliciting eligible proposals for project funding, and USBR requires a resolution of this type for submittal of a formal application for such grant funds; and

WHEREAS, EPWater has determined that this Project, which will involve a feasibility study of an expansion of the Upper Valley Water Treatment Plant using recycled water meets the objectives and requirements outlined under R23AS00076,

NOW, THEREFORE, BE IT RESOLVED BY THE EL PASO WATER UTILITIES PUBLIC SERVICE BOARD OF THE CITY OF EL PASO, TEXAS:

Section 1. That the findings and recitations set out in the preamble to this Resolution are found to be true and correct and are hereby adopted by the El Paso Water Utilities Public Service Board (PSB) and made a part of this Resolution for all purposes.

Section 2. That the PSB, through its Government Affairs division, reviewed and supports EPWater's application for Funding Opportunity Number R23AS00076 "WaterSMART: Water Recycling and Desalination Planning."

Section 3. That the PSB hereby authorizes the President/CEO to sign any and all documents required for the submission of the grant application for the U.S. Bureau of Reclamation (USBR) funds under Funding Opportunity Number R23AS00076 "WaterSMART Grants: Water Recycling and Desalination Planning" in the amount of \$1,000,000 for a feasibility study presenting water supply alternatives, preliminary design, and an environmental impact and compliance assessment. The study aids EPWater in better understanding engineering alternatives, environmental effects, and project scope. The study will

assist in calculating costs and benefits and in understanding federal and state funding prospects. The project's objectives include to: expand capacity to serve the city's growing population on the westside, provide treated recycled water as a water source and reduce a percentage of groundwater pumping to limit impact to Rio Grande flows; reduce flows into the Frontera force main. If awarded, the PSB authorizes the President/CEO to enter into a grant agreement and sign any related documents, including documents for the acceptance of grant funds.

Section 4. That the PSB authorizes EPWater's funding commitment to allocate \$1,000,000 to the Project.

Section 5. That the PSB agrees to conduct this project, if awarded, according to all of the water conservation, planning, environmental, engineering, and renewable energy reporting and accounting procedures required by the USBR. Additionally, EPWater will work with the USBR to meet established deadlines for entering into a grant agreement.

PASSED AND APPROVED at the regular meeting of the Public Service Board, this 8th day of March 2023 at which meeting a quorum was present, held in accordance with the provisions of Texas Government Code, Sections 551.001, et. seq.

EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD

Ivonne Santiago, Chair

ATTEST:

Charles Intebi, Secretary-Treasurer

APPROVED AS TO FORM:

Daniel Ortiz, General Counsel

***Please note that this is an unsigned version of the Resolution. The Public Service Board meeting will be held on March 8th, 2023. EPWater will provide USBR with the signed version of the Resolution at that time.*