Renewable Energy Installation at the Fred Hervey Water Reclamation Plant in El Paso, Texas

Request for WaterSMART: Water and Energy Efficiency Grant
Funding Opportunity Number: R24AS00052

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Executive Summary

Date: February 21, 2024

Applicant Name: El Paso Water (EPWater)
City: El Paso
County: El Paso County
State: Texas

Category: A

Project Summary: EPWater seeks WaterSMART: Water and Energy Efficiency Grant funding to install solar panels at the Fred Hervey Water Reclamation Plant, located in Northwest El Paso. The Fred Hervey Water Reclamation Plant uses tertiary treatment to produce reclaimed water to drinking water quality level. This reclaimed water is re-injected into the Hueco Bolson through a series of injection wells and infiltration basins for aquifer replenishment. The plant also supplies the El Paso Electric Company, the Painted Dunes Golf Course, the City of El Paso's Northeast Regional Park, Bowen Ranch, and several construction contractors with reclaimed water. Bureau of Reclamation resources will support the installation of 4.35 megawatts (MW) of solar energy at the Fred Hervey Water Reclamation Plant. This renewable energy source will fully power the facility during daytime operations. The proposed project will generate 8,192,790 kilowatt hours (kWh) of renewable energy, decrease the use of 298.0 acre-feet of water needed for electricity generation, curb 6,359,672.8 lbs. of carbon dioxide equivalent (CO2e), save $648,748 per year, recharge the Hueco Bolson aquifer, and create other sustainability benefits. Federal investment supports EPWater's goal to reduce the use of surface water and protect groundwater reserves in a region experiencing ongoing drought conditions. Photovoltaic (PV) installation also assists in reaching El Paso Electric's renewable energy goals – 80 percent carbon-free by 2035 and 100 percent by 2045. The project will help the electric utility become more resilient during summer and winter power shortages.

Project Start and Completion Dates:
February 2025 – June 2027 (includes design, permitting, and construction/installation)

Located on Federal Facility: No

Project Location

The Fred Hervey Water Reclamation Plant, a 12 million gallon per day wastewater facility that consists of primary treatment, biological treatment, physical-chemical tertiary treatment, and disinfection, is located at 11700 Railroad Drive in El Paso, Texas. The facility is situated approximately 3.2 miles east of the intersection of U.S. Highway 54 and McCombs Street, and 3 miles south of the intersection of U.S. Highway 54 and Stan Roberts Sr. Avenue. A 4.35 MW PV system is proposed to be installed adjacent to the oxidation ponds to the northeast of the site. The project sits within the Rio Grande watershed, identified by the United States Drought Monitor as experiencing perpetual states of drought intensity.

Latitude: 31°56'44"N
Longitude: 106°21'11"W

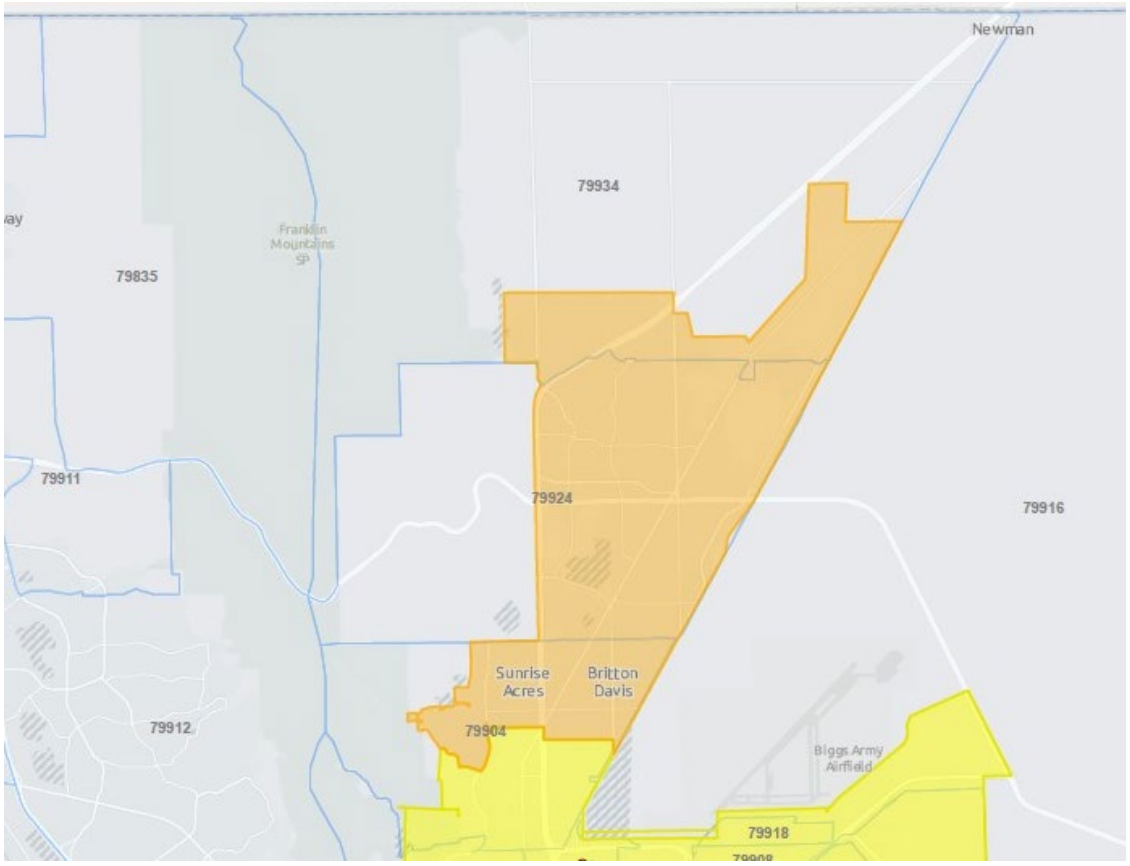

Figure 1. *The area shaded in orange shows the service territory of the Fred Hervey Water Reclamation Plant*

Project Description

EPWater owns and operates drinking water, wastewater, reclaimed water, and stormwater systems in the greater El Paso region. The water utility includes four wastewater treatment plants and four water treatment plants, along with water storage tanks, booster pump stations, wastewater lift stations, and thousands of miles of storm, water, and wastewater pipelines. With an estimated customer base of 831,387, EPWater serves 95 percent of the population in El Paso County – the eighth most populous county in Texas – and provides 25 percent of the water needs of Fort Bliss – one of the largest military installations of the U.S. Army Forces Command. The primary water uses for EPWater customers are municipal, residential, commercial, and industrial. In 2022, approximately 118,000 acre-feet of drinking water was treated and distributed and approximately 62,000 acre-feet or 20 billion gallons of wastewater was collected and treated from the user base.

The water utility's electricity is provided by El Paso Electric, a privately-owned company servicing western Texas and southern New Mexico. In 2022, exactly 52.9 percent of El Paso Electric's resource portfolio was generated from carbon-polluting sources, including natural gas. The greenhouse gas emissions emitted in power production contribute to climate change.

Systemwide, EPWater's energy consumption is approximately 58,000,000 kWh. The water utility's wastewater infrastructure is the most energy intensive. Approximately two-thirds of EPWater's annual electricity usage is associated with its wastewater systems. The Fred Hervey Water Reclamation Plant consumes approximately 9,662,905 kWh of electricity annually – roughly 25 percent of wastewater treatment consumption. Its average monthly consumption is about 805,000 kWh.

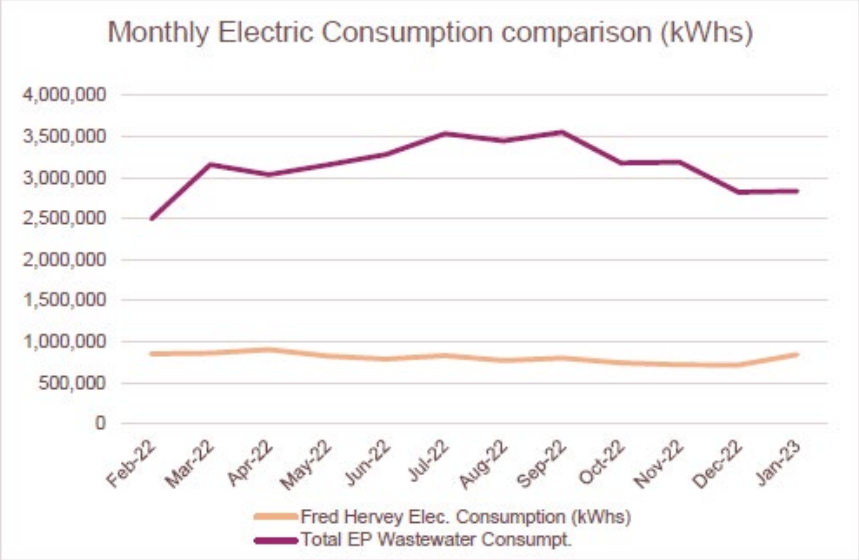

Figure 2. *Electricity consumption for wastewater treatment: EPWater and Fred Hervey Water Reclamation Plant*

In 2023, EPWater contracted with Arcadis to conduct a high-level feasibility study of deploying PVs at the Fred Hervey Water Reclamation Plant. Using the System Advisor Model (SAM) developed by the National Renewable Energy Laboratory (NREL), this assessment provided detailed financial and technical analysis of various solar installation options at the facility. Three separate scenarios were considered:

- *Annual Net Zero* – This alternative relies upon net metering with El Paso Electric. Over the course of the year, the PV system would generate roughly 100 percent of the electricity consumed on-site. During periods where production exceeds demand, electricity would be exported to the grid. During periods where demand exceeds production, electricity would be imported from the grid.
- *No Export (any month)* – This alternative would offset a significant amount of annual grid-supplied electricity consumption at the Fred Hervey Water Reclamation Plant. This scenario would result in a net balance of exported electricity and imported electricity on a monthly (versus annual) basis.
- *Battery Storage* – This alternative incorporates a battery energy storage system to further limit export of electricity by storing excess generation on-site for use during periods of insufficient on-site generation (e.g., night, cloudy days, etc.).

EPWater seeks WaterSMART: Water and Energy Efficiency Grant funding to implement the No Export (any month) option. A 4.35 MW PV system will be installed at the Fred Hervey Water Reclamation Plant, which will offset about 85 percent of annual energy consumption. The solar farm is appropriately sized so that production will not exceed monthly consumption during any month at the facility (based on 2022 data). There will still be a need to have net metering and grid interconnection to export the excess production during daytime and use grid power during nighttime as there is no battery storage included in this scenario.

Key metrics of the preferred No Export (any month) alternative are:

System size	4.35 MW
Annual on-site production	8,192,790 kWh
Electricity bill without system (year 1)	$746,082
Electricity bill with system (year 1)	$97,354
Net savings with system (year 1)	$648,728

Table 1. *Key renewable energy metrics at Fred Hervey Water Reclamation Plant*

EPWater owns several properties near and surrounding the Fred Hervey Water Reclamation Plant. Nineteen acres of land adjacent to the oxidation ponds on the east side of the facility will be used as the site of the PV system. This area can also accommodate further expansion of solar arrays, if necessary.

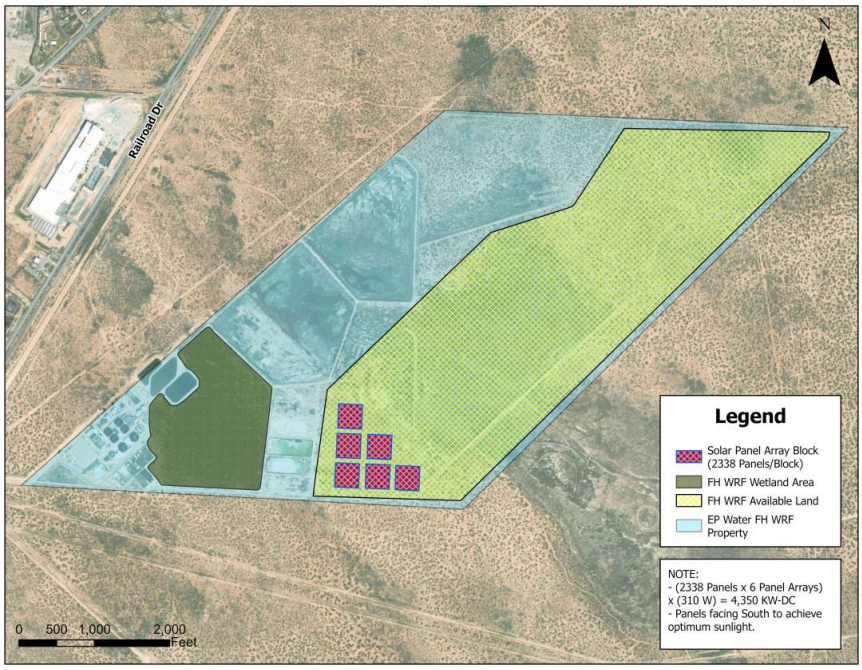

Figure 3. *Proposed location of the solar farm at Fred Hervey Water Reclamation Plant*

The project specifications include the installation of SunPower SPR-E19-310-COM solar panels – 14,028 PV cell modules arranged in 1,169 strings. These E-Series commercial panels convert more sunlight to electricity by producing 31 percent more power per panel and 60 percent more energy per square foot over 25 years. The equipment is designed to deliver consistent, trouble-free energy over a long lifetime and engineered to perform in real-world conditions, such as high temperatures, clouds, and low light. A fixed ground racking system will be used to mount the PVs.

Specifically, the WaterSMART project will involve:

- *Design* – EPWater is moving forward with design and engineering of the PV system at the Fred Hervey Water Reclamation Plant. Final design will be completed by October 2025.
- *Environmental and historic review* – The water utility will coordinate with the Texas Commission on Environmental Quality (TCEQ) to conduct an environmental review of the project. TCEQ is the state regulatory agency that acts on behalf of the U.S. Environmental Protection Agency and ensures compliance with the National Environmental Protection Act (NEPA). It is expected that the project will qualify for a Categorical Exclusion under NEPA. EPWater will also coordinate with the Texas Historical Commission to complete a Section 106 review.
- *Permitting* – EPWater will secure construction permits for the proposed PV installation.
- *Installation of solar panel mounts* – A fixed ground racking system will be installed. These mounting structures will be tilted at a 20-degree angle to maximize sunlight exposure.
- *Installation of solar panels* – Solar panels will be installed into the mounting structures.

- *Wiring of solar panels* – Solar panels will be electrically wired using MC4 connectors.
- *Installation of solar inverters* – Exactly 56 inverters will be installed to convert direct current (DC) electricity, which is what a solar panel generates, to alternating current (AC) electricity, which the electrical grid uses.
- *Connecting to the electric grid* – Grid-tied inverters will provide power to the water plant as needed, while also feeding any extra energy back into the electric grid.

Evaluation Criteria

A. QUANTIFIABLE WATER SAVINGS

1. Describe the amount of estimated water savings.

The proposed PV project will support EPWater's efforts to reduce water use in the region. El Paso Electric's Newman Plant, which uses a combination of gas and oil for its electricity generation, powers the Fred Hervey Water Reclamation Plant. A significant amount of water is used at the Newman Plant for energy production. Boiled water creates steam, which spins turbines to generate electricity. Water also helps to keep the power plant cool. Across the country, thermoelectric plants are the largest sources of U.S. water withdrawals.

According to the U.S. Energy Information Administration, water consumption per megawatt hour (MWh) of electricity at the average fossil-fueled power plant is 11,857 gallons.[1] PV deployment at the Fred Hervey Water Reclamation Plant will replace 8,190.8 MWh (8,192,790 kWh) of fossil fuel-supported electricity annually. The estimated water savings related to improved energy production is 298.0 acre-feet per year.

2. Describe current losses.

Water savings are critical for EPWater. El Paso is located in the westernmost region of Texas, south of the New Mexico-Texas border, and east of the Rio Grande river where it outlines the U.S.-Mexico border. Its expansive desert environment encompasses the most arid region of the state with an average annual rainfall of 8.8 inches and an average annual lake-surface evaporation of 70 inches. With the exception of controlled flows of the Rio Grande, there is virtually no other source of surface water in the area. Infrastructure projects that conserve water are important to the sustainability of the area.

Currently, EPWater relies on the conservation and complex management of a source water supply consisting of (1) surface water from the Rio Grande; (2) groundwater from the Hueco Bolson aquifer; (3) groundwater from the Mesilla Bolson aquifer; (4) desalinated water from brackish portions of the Hueco Bolson; and (5) reclaimed water in the form of treated wastewater from treatment plants like the Fred Hervey Water Reclamation Plant. EPWater strategically manages these water supplies and actively adapts to changes in surface water availability from the increasingly variable Rio Grande. In terms of potable source water, EPWater has an average supply that is 40 percent surface water from the Rio Grande, 38 percent groundwater from the Hueco Bolson, 17 percent groundwater from the Mesilla Bolson, and 5 percent desalinated water from

[1] https://www.eia.gov/todayinenergy/detail.php?id=50698

the Kay Bailey Hutchinson Plant. While surface water constitutes 40 percent of EPWater's drinking water supply in non-drought years, it can be far less in drought years, requiring increased reliance on groundwater.

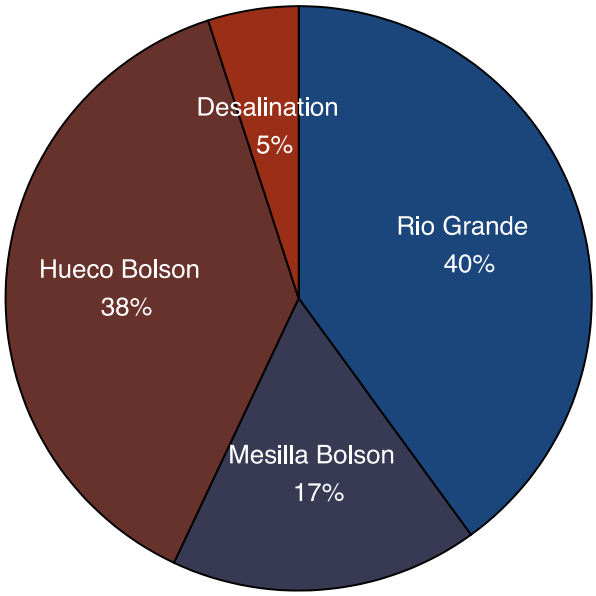

Figure 4. *EPWater sources in a typical year*

In the most recent decade, river water available to El Paso has been reduced by an average of 30 percent per year. In 2011, EPWater endured the worst single-year meteorological drought in Texas and in 2013, received a sixth of its allowable river allotment. Sustained drought has strained groundwater levels by the resultant increases in pumping. Beneath El Paso, the average concentration of dissolved solids in the Hueco Bolson aquifer has increased as fresh water is consumed. Over the last century, levels of the Hueco Bolson have declined by nearly 200 feet, with heavy pumping in the 1980s causing an average decline of up to three feet annually. Due to conservation, reclamation, and desalination, the rate of decline has slowed, but continued diversification and diligence is required to ensure long-term stabilization. Moreover, Ciudad Juarez – which has an estimated population of over 1.5 million – and Fort Bliss military base depend on groundwater from the Hueco Bolson to meet municipal and industrial demands.

Resiliency to drought has long been incorporated into EPWater's strategic planning and was key in creating Texas' first aquifer and recharge facility in 1985. This ASR facility allowed EPWater to recharge the Hueco Bolson in northeast El Paso where ideal geological conditions enabled effective injection. Source water for recharge is wastewater effluent treated to drinking standards from the Fred Hervey Water Reclamation Plant. This plant can treat up to 10 million gallons per day (MGD). EPWater has historically used deep injection wells as a recharge method, but research within the last decade conducted by the American Water Works Association has shown that infiltration basins offer a more economical alternative with costs savings in construction,

operations, and maintenance. Since then, EPWater has constructed four infiltration ponds and reduced its dependency on injection wells.

In total, EPWater serves an estimated customer base of 831,387 through customer connections and wholesale water services, providing water to approximately 95 percent of El Paso County, a region of 1,000 square miles. El Paso County has a population of more than 840,000 and, according to Texas Water Development Board population projections, the area will have a population exceeding 1.5 million by 2070 (see Figure 5). Water demand will rise with population growth (see Table 2).

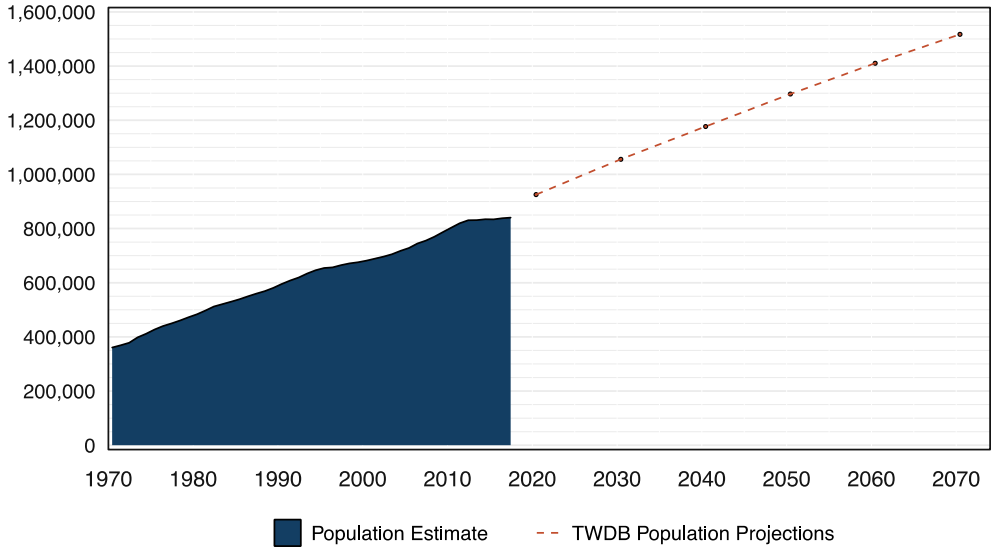

Figure 5. *Population estimate of EPWater service area*

Receiving Entity	2020	2030	2040	2050	2060	2070
El Paso	110,572	120,315	129,713	139,978	150,601	160,792
Fort Bliss (25% of total demand)	1,420	1,430	1,456	1,495	1,532	1,570
Lower Valley Water District	5,714	6,563	7,398	8,290	9,189	10,045
Vinton	213	282	346	414	478	538
Paseo Del Este MUD #1	1,054	1,167	1,278	1,397	1,515	1,629
East Montana	806	891	974	1,064	1,155	1,241
Haciendas Del Norte WID	196	218	240	262	285	306
Manufacturing	7,028	8,157	8,157	8,157	8,157	8,157
Mining (12% of total demand)	481	555	631	714	803	905
Steam Electric Power (75%	7,909	7,909	7,909	7,909	7,909	7,909

of total demand)						
County Other	2,086	2,758	3,395	4,055	4,680	5,272
Total Demand	**137,479**	**150,245**	**161,497**	**173,735**	**186,304**	**198,364**

Table 2. *Water demand in units of acre-feet per year (2021 Far West Texas Water Plan)*

Water supply is also essential for Fort Bliss. EPWater collaborates on the region's water resiliency with Fort Bliss, and both utilize the Hueco Bolson aquifer as a primary source for drinking water. Fort Bliss has a vested interest in quantity and quality of the freshwater portion of the aquifer. As one of the largest military bases in the country, reliable water supply is important to Fort Bliss. The base has grown exponentially since 2005, from 9,000 soldiers to more than 33,000 today. A 2013 Final Environmental Impact Statement of Fort Bliss named water as a potential impediment to the long-term viability of installation operations. The U.S. Army's Military Value Analysis Model also highlighted the need to increase water quantity as essential to Fort Bliss' sustainability. In 2021, the Texas Military Preparedness Commission recognized the need for drought resiliency and diversification of water supply in the El Paso-Fort Bliss community and awarded Defense Economic Adjustment Assistance Grant funding to EPWater in support of its ASR project.

Water is being unnecessarily lost due to its use in the production of fossil fuel-supported electricity at El Paso Electric's Newman Plant. On average, 11,857 gallons of water are needed per MWh of electricity generated at the power utility. Renewable energy adoption at the Fred Hervey Water Reclamation Plant will make 298.0 acre-feet of water available annually to the Hueco Bolson aquifer to meet growing needs. Aquifer recharge is critical in the region. The water savings produced with solar installation at the Fred Hervey Water Reclamation Plant will also support Fort Bliss' water supply and help protect America's national security interests.

3. Describe the support/documentation of estimated savings.

Water savings at El Paso Electric's Newman Plant are based upon research conducted by the U.S. Energy Information Administration. Thermoelectric power plants – including coal, nuclear, and natural gas plants – boil water to create steam, which then spins a turbine to generate electricity. Water is also used to cool power plants. The agency found that the U.S. electric power sector withdrew 47.5 trillion gallons of water in 2020. As the fuel mix has shifted to less water-intensive energy sources, the use of water during U.S. power generation has declined from 14,928 gallons per MWh in 2015 to 11,857 gallons per MWh in 2020 (see Figure 6).

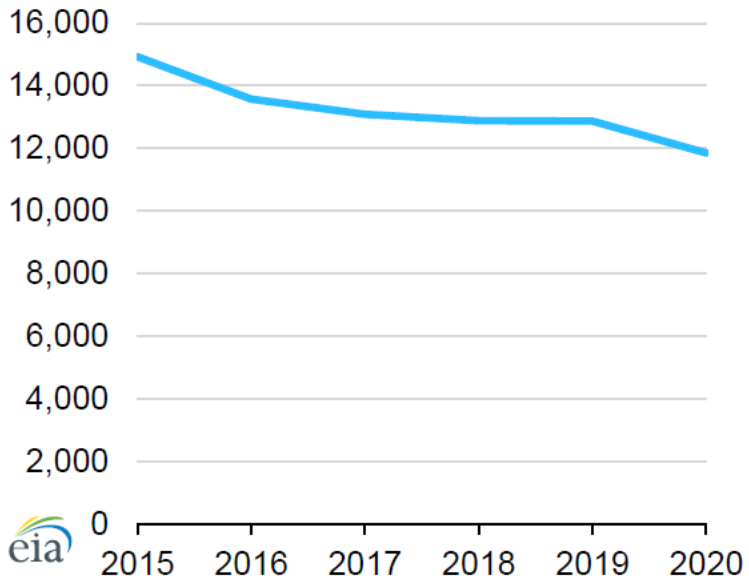

Figure 6. *Water intensity of U.S. thermoelectric power plants in gallons per MWh (U.S. Energy Information Administration)*

The installation of solar panels at the Fred Hervey Water Reclamation Plant will replace 8,192.8 MWh (8,192,790 kWh) of fossil fuel-supported electricity annually. Multiplying the amount of renewable energy produced by solar by the water intensity of fossil fuel power generation determines the water savings possible. See calculation below:

(8,192.8 MWh of solar energy produced per year x 11,857 gallons of water conserved per 1 MWh of fossil-fuel electricity) / 326,000 gallons per acre foot =

298.0 acre-feet of water saved annually

4. Additional questions

Not applicable.

B. RENEWABLE ENERGY

B.1 Implementing Renewable Energy Projects Related to Water Management and Delivery

1. Describe amount of energy capacity.

EPWater seeks to install a 4,350.8 kW PV system at the Fred Hervey Water Reclamation Plant. The solar array specifications are based on SunPower SPR-E19-310-COM solar panels. Each PV module of the solar panel will be capable of producing 310.15 DC watts of electricity. The entire system will consist of 14,028 modules. See calculation below:

(310.15 DC watts of electricity per module x 14,028 PV modules) /
1000 watts per kilowatt (kW) =

4,350.8 kW

2. Describe the amount of energy generated.

Solar panels at the Fred Hervey Water Reclamation Plant will produce 8,192,790 kWh of electricity annually. A 4.35 MW PV system is proposed for the wastewater facility to fully support daytime operations. The solar farm will be operational for 8,790 hours annually. A loss factor of 0.21 is presumed, which includes multiple parameters such as daylight hours, hourly irradiance, angle of the sun, cloud cover, inverter efficiency ratio, and system losses (soiling, shading, wiring, aging, etc.). See calculation below:

4,350 kW PV system x 8,760 total annual hours x 0.21 loss factor =

8,192,790 kWh

Arcadis utilized SAM by NREL to provide the annual generation from PVs. SAM is an advanced renewable energy modelling tool that provides accurate energy generation numbers. Using SAM allows for a more precise loss factor, rather than a simplified method of using the estimated factor. This renewable energy will serve the Fred Hervey water reclamation plant, replacing the grid-supplied electricity used to run daily operations at the plant currently. EPWater has coordinated with El Paso Electric on the potential of selling excess electricity back to the grid.

3. **Describe any other benefits of the renewable energy project.**

EPWater's wastewater facilities have consistent energy usage across the year, which is expected in a relatively dry climate with hot summers, little humidity, and cool to dry winters.

The proposed project will replace fossil fuel-supported electricity with clean, renewable energy at the Fred Hervey Water Reclamation Plant. Currently, the facility consumes 9,662,905 kWhs (9,662.9 MWhs) of electricity from El Paso Electric's grid supply. PV deployment at the wastewater utility will provide 85% of its of its annual power usage; only 15% will be needed from the electric grid.

Texas falls under Emissions & Generation Resource Integrated Database (eGRID) subregion ERCT, with a 2022 CO2e output emission rate of 774.298 lbs. of CO2e/MWhs.[2] Using eGRID data, the Fred Hervey Water Reclamation Plant's Scope 2 indirect greenhouse gas emissions from purchased electricity is 7,481,968 lbs. of CO2e annually. After solar installation, the facility will generate only 1,122,295.2 lbs. of CO2e every year, a reduction of 6,359,672.8 lbs. of CO2e. See calculation below:

(9,662.9 MWhs of current electricity use x 774.298 lbs. of CO2e/MWh) / 0.85 =

6,359,672.8 lbs. of CO2e

The benefits of reducing EPWater's carbon footprint include slowing climate change, decreasing outdoor air pollution, and improving public health.

[2] https://www.epa.gov/egrid/data-explorer

C. OTHER PROJECT BENEFITS

1. Resilience and Sustainability Benefits

Drought and water scarcity

The proposed project will help El Paso become more drought resilient. EPWater serves El Paso County, an area that has experienced multiple cyclical episodes of severe and extreme drought within the last 10 years. El Paso is perennially under drought or near-drought conditions compared with other areas of Texas. Average rainfall is less than 10 inches annually. The most recent significant droughts have occurred in 2013 and 2021. In 2013, the Elephant Butte Reservoir – the primary source of EPWater's Rio Grande Project surface water – dwindled to its lowest level in 40 years, and El Paso only received 6 weeks of river water (see Figure 7). By late July 2013, the reservoir was still virtually empty. On July 24, 2013, the U.S. Army Corps of Engineers estimated the total water in storage at the Elephant Butte Reservoir to be 65,057 acre-feet, about 3 percent of its total capacity of 2.2 million acre-feet. The year 2021 was only slightly better. El Paso received about 9 weeks of river water, and the river was depleted by the end of August.

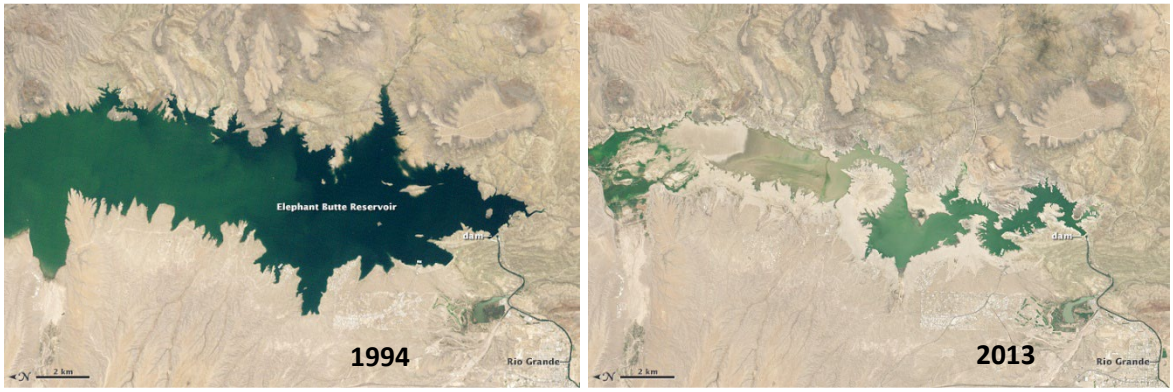

Figure 7. *Rio Grande drought conditions – 1994 vs. 2013 (drought of record)*

El Paso County has been designated as a drought disaster area by the State of Texas several times in the last decade (in late 2013, 2014, 2015, 2020, 2021, and again late 2023). As recent as April 2021, El Paso was declared as having exceptional drought conditions that pose a threat of imminent disaster.

Since 2013, the United States Drought Monitor has registered El Paso and the Rio Grande watershed in perpetual states of drought intensity. In 2014, the region alternated between moderate, severe, and extreme drought conditions. Between the years 2015-2017, the area fluctuated from abnormally dry to moderate drought. In 2021, El Paso was once again in a period of extreme and exceptional drought (see Figure 8).

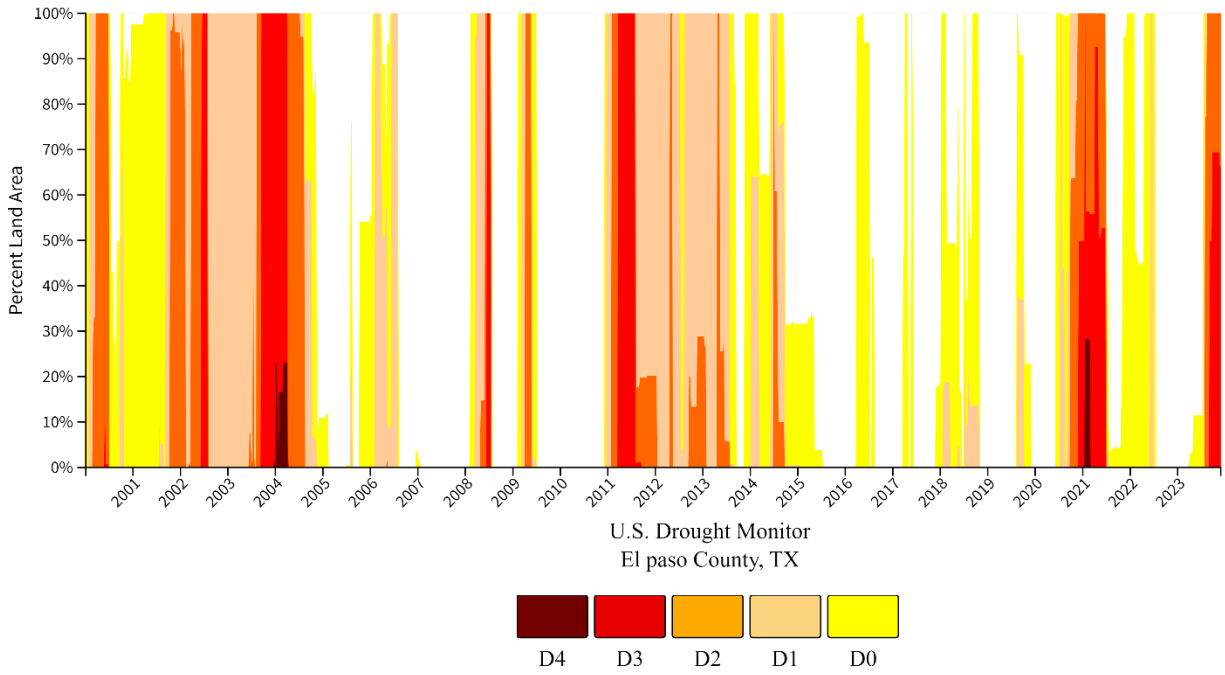

Figure 8. *Historic drought conditions in El Paso County*

Drought cycles negatively impact a region experiencing population growth. By 2070, El Paso County's population is expected to grow to 1.5 million people. The region's future water security will depend on EPWater expanding water, wastewater, and stormwater infrastructure systems. To mitigate the effects of these droughts, EPWater is diversifying its water portfolio and implementing wide-ranging water conservation measures.

The proposed project will help El Paso become more drought resilient. During years when Rio Grande water supply has been limited, EPWater has increased its reliance on groundwater supplies. That increased reliance on groundwater due to drought threatens to destabilize the Hueco Bolson aquifer. Brackish water intrusion into currently freshwater sections of the Hueco Bolson is also an ongoing risk. PV adoption at the Fred Hervey Water Reclamation Plant will reduce the need for water-intensive electricity from El Paso Electric's Newman Plant. A 4.35 MW PV system at the Fred Hervey Water Reclamation Plant will offset about 85 percent of annual energy consumption. The project will replace 8,192.8 MWh (8,192,790 kWh) of fossil fuel-supported electricity with clean, renewable energy annually. An estimated 298.0 acre-feet of water will be saved annually from improved energy production. Reducing water demand from El Paso Electric will help to protect the Hueco Bolson aquifer.

Water supply

Water supply shortages are a risk in the region. El Paso is growing, and by 2030, the demands of customers are expected to exceed the area's current supply. EPWater holds up to 60,000 AFY of

river water rights from the Rio Grande Project. However, drought conditions have limited that supply, and the increasing severity of drought cycles is likely to result in little or no river allocation in some future years. During the past ten years, continued droughts have caused a 30 percent per year (on average) reduction in surface water availability to El Paso.

The unreliability of Rio Grande water supply has required an increased reliance on groundwater supplies in El Paso. EPWater draws groundwater from two separate aquifers, the Hueco Bolson and the Mesilla Bolson. As fresh groundwater withdrawals increase, the Hueco Bolson aquifer, in particular, could become depleted and at risk for brackish water intrusion. Groundwater depletion is a threat to the Hueco Bolson if there is over-pumping either due to drought or to meet water demands. The Hueco Bolson experienced serious declines in the 1980s and 1990s. While the decline has slowed, it is essential to carefully manage this groundwater resource to ensure sustainability.

The need for drought-resistant water supplies is now critically important, something El Paso is reminded of year after year as drought-like conditions return either as local meteorological conditions or operational droughts caused by Rio Grande Project Water. Water conservation efforts will help El Paso to be more resilient and tolerate reduced water allocations from the Rio Grande. On average, 11,857 gallons of water are needed per MWh of electricity generated by El Paso Electric. Renewable energy adoption at the Fred Hervey Water Reclamation Plant will reduce the need for 298.0 acre-feet of water annually for energy production at the Newman Plant. These water savings will support recharge efforts at the Hueco Bolson aquifer.

Conserving water will provide benefits to agricultural, commercial, industrial, and residential users. Importantly, the project will also benefit Fort Bliss, one of the largest military bases in the country. EPWater provides approximately 25 percent of the needed water supply to Fort Bliss and treats 100 percent of the military base's wastewater needs. Fort Bliss relies on freshwater wells for 75 percent of its water supply. Water resiliency at Fort Bliss is necessary to protect America's national security interests.

The project also supports the findings of the *Lower Rio Grande Basin Study*, developed by the Bureau of Reclamation in collaboration with the Rio Grande Regional Water Authority in December 2013.[3] The study projected severe water supply and demand imbalances through 2060, leading to a likely decrease in water delivery reliability. To address these projected imbalances, the study developed strategies to reduce dependence on the Rio Grande that cover the projected shortfall, protect existing water rights, are compatible with relevant laws and regulations, and are implementable by the study sponsors. Renewable energy strategies that reduce water use align with the *Lower Rio Grande Basin Study.*

[3] https://www.usbr.gov/watersmart/bsp/docs/finalreport/LowerRioGrande/LowerRioGrandeBasinStudy.pdf

Interstate compact

The proposed project helps the Bureau of Reclamation fulfill the water distribution requirements and treaty obligations of the Rio Grande Project authorized in 1905. This project furnishes a full irrigation water supply for about 178,000 acres of land in the states of New Mexico and Texas. Use of Rio Grande Project water is governed by the Rio Grande Compact. Water is also allotted to Mexico by the International Boundary and Water Commission to irrigate approximately 25,000 acres in the Juarez Valley. Water saved through renewable energy adoption at the Fred Hervey Water Reclamation Plant will contribute to resiliency during drought when Rio Grande allocations are low and the utility must lean more on the Hueco Bolson.

Water-related crisis

As discussed, the project will help EPWater provide water during drought and water shortage conditions in the region. The Fred Hervey Water Reclamation Plant does not currently have a backup power system, so this project will also allow the Fred Hervey Water Reclamation Plant to continue wastewater operations in the event of an electric outage or shortage conditions due to freeze or high temperatures. El Paso Water's water treatment plants do currently have a backup power supply and have an agreement with El Paso Electric that allow the electric utility to interrupt service at the plants during shortage conditions in order to keep the lights on at homes and businesses. EPE has had to exercise this agreement multiple times in recent years. Since the Fred Hervey Water Reclamation will be less reliant on El Paso Electric, it will provide the plant – and broader community – with greater resilience.

Energy sustainability

Located in the Chihuahuan Desert, the arid climate of El Paso is a stressor on energy systems. The area routinely experiences triple-digit temperatures. Periods of extreme heat stress the grid by spiking demand for electricity as families and businesses crank up the air conditioning to stay cool. Just as demand surges, supply can simultaneously be constrained by problems at power facilities caused by those same hotter temperatures. Scorching weather can reduce the output of power plants, cause equipment to overheat, and lead to temporary shutdowns. These challenges stand to worsen as climate change presents more extreme weather patterns.

Solar power can help cushion the blow of intense heat waves. However, the El Paso region has lagged in renewable energy adoption. The amount of solar power generated by El Paso Electric remained virtually unchanged from 2016 through 2022. Over that same time, solar generation across the Texas grid multiplied several times over, from 420 gigawatt-hours in 2016 to over 24,000 gigawatt-hours in 2022.

The proposed project will reduce the region's dependence on fossil-fuel supported electricity. Deploying clean, renewable energy at the Fred Hervey Water Reclamation Plant will replace 8,190.8 MWh (8,192,790 kWh) of power generated annually at El Paso Electric's Newman Plant. The new PV system will be a national energy sustainability model. Furthermore, Bureau of Reclamation investment will support El Paso Electric's clean renewable energy goals – 80 percent carbon-free by 2035 and 100 percent by 2045.

2. Ecological Benefits

The U.S. Fish & Wildlife Service has identified El Paso County as home to eight currently federally-listed threatened and endangered species. Half of these species have been extirpated from the area.

Scientific Name	Common Name	Federal Status	Habitat
Canis lupus	Gray Wolf	Listed Endangered	Forests, brushland, or grassland
Coccyzus americanus occidentalis	Western Yellow-Billed Cuckoo	Threatened	Riparian habitat for nesting
Empidonax traillii extimus	Southwestern Willow Flycatcher	Listed Endangered	Thickets of willow, cottonwood, mesquite, and other species along desert streams
Escobaria sneedii var. *sneedii*	Sneed's Pincushion Cactus	Listed Endangered	Xeric limestone outcrops on rocky, usually steep slopes in desert mountains, in the Chihuahuan Desert succulent shrublands or grasslands
Falco femoralis septentrionalis	Northern Aplomado Falcon	Listed Endangered	Open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus
Mustela nigripes	Black-Footed Ferret	Listed Endangered	Inhabited prairie dog towns in the general area
Sterna antillarum anthalassos	Interior Least Tern	Listed Endangered	Nests along sand and gravel bars within braided streams, rivers; also known to nest on man=made structures (inland beaches, wastewater treatment plants, gravel mines, etc.)
Strix occidentalis lucida	Mexican Spotted Owl	Listed Endangered	Remote shaded canyons of coniferous mountain woodlands (pine and fir)

Table 3. *Threatened and endangered species*

The water savings achieved with PV deployment at the Fred Hervey Water Reclamation Plant will support EPWater's broader Enhanced Arroyo Infiltration Facility project, a two-mile long infiltration basin (from Martin Luther King Jr. Boulevard on the west, easterly to the Painted Dunes Golf Course) that will resemble a stream channel (see Figure 9). With construction underway, EPWater will eventually take treated Rio Grande water and use it to recharge the

Hueco Bolson aquifer during plentiful years. Wastewater treated to drinking water standards from the Fred Hervey Water Reclamation Plant will also be piped to the arroyo for infiltration. The project will produce multiple benefits, including groundwater stabilization and increased freshwater availability during prolonged drought. The arroyo will also serve as an amenity for the community with walking trails and landscaping.

Figure 9. *Conceptual drawing of Enhanced Arroyo Infiltration facility*

Increased water flow to the arroyo will support wetlands. This wetland habitat will benefit numerous non-listed wildlife species common to the area, plus some listed or endangered species such as the Northern Aplomado Falcon, Interior Least Tern, and Southwestern Willow Flycatcher, as well as the threatened Mexican Spotted Owl. The arroyo will also attract birds, mammals, and reptiles that commonly visit the El Paso area for watering, sanctuary, nesting, and breeding purposes.

No negative impacts to endangered species, waters of the United States, or other environmentally-sensitive land are expected. However, coordination with the U.S. Fish & Wildlife Service, U.S. Army Corps of Engineers, TCEQ, Texas Parks and Wildlife Department, Texas and El Paso Historic Commissions, and numerous federal and State regulatory agencies is required to fully comply with current environmental laws. An Environmental Assessment (EA), Habitat Evaluation (HE), and other archeological surveys will be conducted during the planning phase.

3. Climate Change

Already, the region is experiencing extreme heat and water shortages. According to the Bureau of Reclamation's *Water Reliability in the West – 2021 SECURE Water Act Report*, climate model projections indicate an increase in drought duration and severity across Texas. Greenhouse gas emission reductions and water conservation efforts are imperative to help El Paso mitigate the impacts of climate change.

Future drought and drought-of-record conditions will place significant strain on El Paso's water supply. The water demand of EPWater is also expected to increase over the next several decades due to rising population. Tackling climate change is critical to help EPWater from unsustainably pumping the freshwater portions of the Hueco Bolson aquifer to meet water demands.

Renewable energy is part of a comprehensive strategy to tackle the challenge of drought and climate change in the El Paso region. The proposed project will help EPWater achieve water savings associated with electricity production. The water utility expects to reduce water demand by 298.0 acre-feet of water per year with PV deployment. This approach aligns with EPWater's other plans for advanced water purification, expanded Hueco Bolson aquifer recharge, and water importation.

Once one of the greatest rivers in North America, the Rio Grande's longstanding reduced flows have diminished its ecological health. For at least half the year, the river below El Paso is nothing more than a dry wash. As such, the project area is not teeming with fish or wildlife. Nonetheless, PV deployment will help to support aquifer recharge and wetland habitat creation. Specifically, the project will benefit the endangered Northern Aplomado Falcon, Interior Least Tern, and Southwestern Willow Flycatcher, as well as the threatened Mexican Spotted Owl.

The project will also improve air quality. Power plants are some of the largest sources of particulate matter and also emit other air pollutants like sulfur dioxide and nitrogen oxide into the atmosphere. Renewable energy like solar power generates electricity with no associated air pollution emissions.

This first-of-its-kind initiative for EPWater will build the resilience of the El Paso region to climate change, enabling the utility to continue wastewater operations in the event of an emergency.

D. DISADVANTAGED COMMUNITIES AND TRIBAL BENEFITS

1. Disadvantaged Communities

The project will have no adverse impacts on low-income or minority populations. In fact, the project will benefit these distressed populations with increased water reliability and resilience.

Much of the El Paso region is economically disadvantaged. Poverty is higher in the EPWater service area (18.9 percent in El Paso and 19.5 percent across El Paso County) compared to state (13.9 percent) and national (12.5 percent) levels. Median household incomes are also lower in the region ($55,710 in El Paso and $55,417 across El Paso County) in relationship to Texas ($73,035) and the United States ($75,149).

	City of El Paso	El Paso County	Texas	United States
Minority	88.0%	88.8%	59.9%	41.1%
Black	5.1%	4.6%	13.7%	14.3%
Hispanic	81.6%	82.9%	39.9%	18.7%
Poverty	18.9%	19.5%	13.9%	12.5%
Median Household Income	$55,710	$55,417	$73,035	$75,149

Table 4. *El Paso demographics (2018-2022 American Community Survey, U.S. Census Bureau)*

A substantial proportion of residents are considered very low-income, with nearly a quarter of El Pasoans living below the federal poverty line. In EPWater's service area, high concentrations of poverty can be found clustered in the urban core. However, the number of low-income neighborhoods is increasing toward the edges of the city, particularly to the east. High levels of poverty also exacerbate other environmental and social challenges within the community.

The Fred Hervey Water Reclamation Plant is located in Northeast El Paso and provides wastewater service for that section of the city, which tends to have even lower incomes than other parts of the community. The wastewater facility's customers are municipal, residential, commercial, and industrial. The service territory includes multiple Census Tracts identified as "disadvantaged" by the White House Council on Environmental Quality's Climate and Economic Justice Screening Tool, including 48141000101, 48141000107, 48141000108, 48141000109, 48141000110, 48141000112, 48141000204, 48141000205, 48141000206, 48141000207, 48141000208, 48141000301, 48141000302, 48141000403, 48141000404, and 48141010207 (see Figure 10).

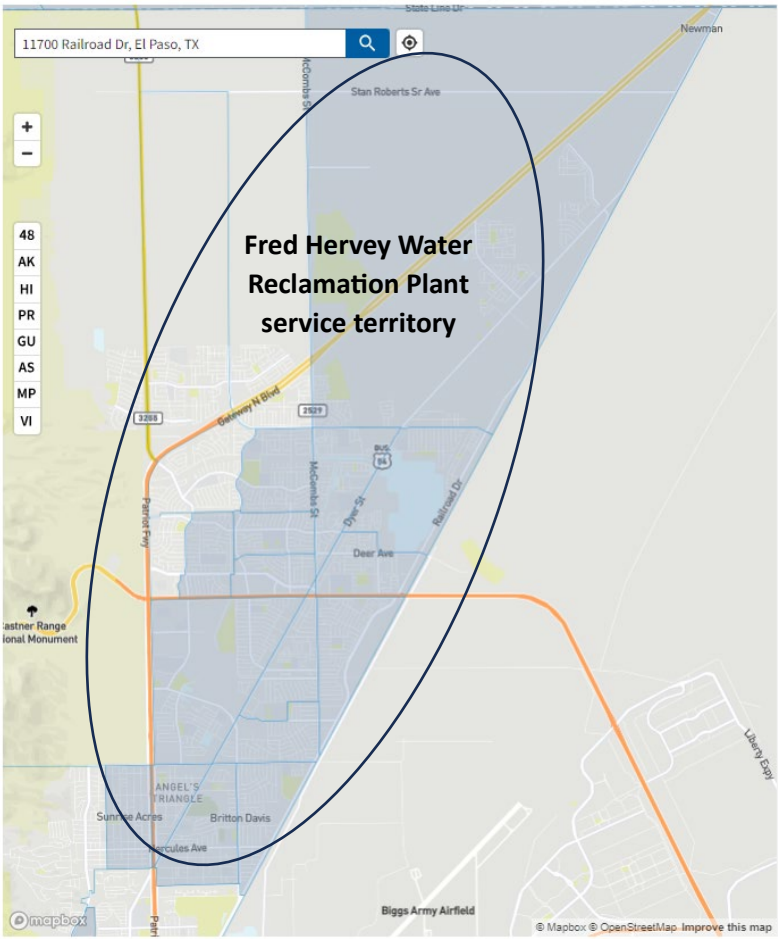

Figure 10. *Climate and Economic Justice Screening Tool screenshot*

A CEJST analysis of disparities in the project area finds the following socioeconomic burdens (shown in red):

Socioeconomic Indicator	Level (Census Tract)
Low Income	71st (48141000101), 86th (48141000107), 85th (48141000108), 68th (48141000109), 79th (48141000110), 76th (48141000112), 77th (48141000204), 96th (48141000205), 85th (48141000206), 77th (48141000207), 83rd (48141000208), 98th (48141000301), 96th (48141000302), 71st (48141000403), 99th (48141000404)
Expected Building Loss Rate	95th (48141000108), 93rd (48141000109), 93rd (48141000110), 97th (48141000205), 94th (48141000206), 91st (48141000207), 98th (48141000302)
Energy Cost	92nd (48141000404)
Diabetes	91st (48141000107), 90th (48141000108), 90th (48141000112), 95th (48141000205), 95th (48141000206), 95th (48141000301), 98th (48141000302), 95th (48141000404)
Heart Disease	94th (48141000302)
Housing Cost	96th (48141000301), 98th (48141000404)
Abandoned Mine Land	Yes (48141000207)
Formerly Used Defense Sites	Yes (48141000101)
Proximity to Risk Management Plan	94th (48141000107), 93rd (48141000108), 91st (48141000109),

Facilities	94th (48141000110), 91st (48141000112), 94th (48141000204), 97th (48141000207), 94th (48141000208)
Linguistic Isolation	94th (48141000107), 98th (48141000109), 92nd (48141000110), 93rd (48141000112), 96th (48141000205), 94th (48141000206), 97th (48141000207), 94th (48141000208), 96th (48141000301), 97th (48141000302), 91st (48141000403), 98th (48141000404), 90th (48141010207)
Low Median Income	92nd (48141000301), 96th (48141000404)
Poverty	95th (48141000205), 90th (48141000301), 95th (48141000302), 99th (48141000404)
Unemployment	94th (48141000108), 92nd (48141000109), 96th (48141000110), (48141000206), 93rd (48141000301), 97th (48141000404)
Less than High School Education	18% (48141000101), 20% (48141000107), 17% (48141000108), 27% (48141000109), 18% (48141000110), 24% (48141000112), 16% (48141000204), 27% (48141000205), 19% (48141000206), 28% (48141000207), 19% (48141000208), 24% (48141000301), 36% (48141000302), 15% (48141000403), 43% (48141000404), 10% (48141010207)

Table 5. *Socioeconomic burdens experienced in the Fred Hervey Water Reclamation Plant's service territory (Climate and Economic Justice Screening Tool)*

A Fred Hervey Water Reclamation Plant served with renewable energy will provide more reliability for marginalized customers. El Paso Electric's Newman Plant depends largely on natural gas within its resource portfolio. The price for natural gas can swing dramatically. Natural gas supply lines froze up across much of Texas during the deadly February 2021 winter storm that blanketed the state, choking off supply and sending the price skyrocketing as utilities competed to buy the same scarce fuel. The shortage of natural gas prevented power plants from running and exacerbated the power shortage. El Pasoans are still paying extra fees on their monthly gas bills to pay off the high-priced natural gas purchased during the storm. Household electric bills also shot up in 2022 after the market price for natural gas doubled that summer over the 2021 level. A solar farm doesn't need fuel, water, or as many employees to operate. The proposed solar project will enable El Paso Electric to reduce its reliance on natural gas and protect customers, including low-income and minority residents, from similar natural gas disruptions and price spikes in the future.

The project will also support many critical facilities served by the Fred Hervey Water Reclamation Plant (see Table 6).

Critical Services and Community Amenities	# Served
Fire Stations	6
Hospitals	4
Libraries	1
Police Station	1
Elementary Schools	11
Middle Schools	3
High Schools	3
Childcare Centers	15

Table 6. *Critical customers of Fred Hervey Water Reclamation Plant*

2. Tribal Benefits

The project supports the President Biden's "Tribal Consultation and Strengthening Nation-to-Nation Relationships" memorandum, asserting the importance of honoring the Federal government's commitments to Tribal Nations. Located in the Lower Valley area of the city and county is the Ysleta Del Sur Pueblo, a U.S. federally recognized Native American tribe and sovereign nation known as the "Tigua." In 2020, there were 4,696 enrolled citizens of Ysleta del Sur Pueblo. Water access was first guaranteed to the Tiguas in 1642, when Spain gave the tribe irrigation rights. Today, these residents are EPWater customers. EPWater shares the Bureau of Reclamation's commitment to uphold the Tigua's water rights. The project's water supply benefits will ensure the protection of the Tigua's claims.

E. COMPLEMENTING ON-FARM IRRIGATION IMPROVEMENTS

The Fred Hervey Water Reclamation Plant can treat up to 10 million MGD of wastewater and provides reclaimed water to agricultural users. A major customer of the facility is the 88,000-acre Bowen Ranch, a cattle-grazing operation located on the edge of the city. Every gallon of reclaimed water used for farming reduces the amount of water pumped from the Hueco Bolson aquifer or diverted from the Rio Grande.

F. READINESS TO PROCEED

Identify and provide a summary description of the major tasks necessary to complete the project.

EPWater plans to deploy solar arrays at the Fred Hervey Water Reclamation Plant on 19 acres of land adjacent to the oxidation ponds on the east side of the facility. The project includes the installation of SunPower SPR-E19-310-COM solar panels – 14,028 PV cell modules arranged in 1,169 strings. A fixed ground racking system will be used to mount the PVs.

The major tasks necessary to complete the project include:

- *Design* – EPWater is moving forward with design and engineering of the PV system at the Fred Hervey Water Reclamation Plant. Final design will be completed by October 2025.
- *Environmental and historic review* – The water utility will coordinate with TCEQ to conduct an environmental review of the project. TCEQ is the state regulatory agency that acts on behalf of the U.S. Environmental Protection Agency and ensures compliance with the NEPA. It is expected that the project will qualify for a Categorical Exclusion under NEPA. EPWater will also coordinate with the Texas Historical Commission to complete a Section 106 review.
- *Permitting* – EPWater will secure construction permits for the proposed PV installation.
- *Installation of solar panel mounts* – A fixed ground racking system will be installed. These mounting structures will be tilted at a 20-degree angle to maximize sunlight exposure.
- *Installation of solar panels* – Solar panels will be installed into the mounting structures.
- *Wiring of solar panels* – Solar panels will be electrically wired using MC4 connectors.
- *Installation of solar inverters* – Exactly 56 inverters will be installed to convert DC electricity, which is what a solar panel generates, to AC electricity, which the electrical grid uses.
- *Connecting to the electric grid* – Grid-tied inverters will provide power to the water plant as needed, while also feeding any extra energy back into the electric grid.

Describe any permits that will be required, along with the process for obtaining such permits.

EPWater will request review from the TCEQ to meet National Environmental Policy Act requirements. EPWater will request a possible categorical exclusion.

EPWater will request a Section 106 review from the Texas Historical Commission.

EPWater will seek construction permits through the City of El Paso.

Identify and describe any engineering or design work performed specifically in support of the proposed project.

EPWater procured a consultant to develop a planning study that reviewed renewable energy options at the Fred Hervey Water Reclamation Plant. In January 2024, a draft of the *Detailed Assessment of PV at Fred Hervey WRP* was completed by Arcadis. This high-level feasibility study provided detailed financial and technical analysis of various solar installation alternatives at the facility. Three separate scenarios were considered:

- *Annual Net Zero* – This alternative relies upon net metering with El Paso Electric. Over the course of the year, the PV system would generate roughly 100 percent of the electricity consumed on-site. During periods where production exceeds demand, electricity would be exported to the grid. During periods where demand exceeds production, electricity would be imported from the grid.
- *No Export (any month)* – This alternative would offset a significant amount of annual grid-supplied electricity consumption at the Fred Hervey Water Reclamation Plant. This scenario would result in a net balance of exported electricity and imported electricity on a monthly (versus annual) basis.
- *Battery Storage* – This alternative incorporates a battery energy storage system to further limit export of electricity by storing excess generation on-site for use during periods of insufficient on-site generation (e.g., night, cloudy days, etc.).

EPWater seeks WaterSMART: Water and Energy Efficiency Grant funding to implement the No Export (any month) option. A 4.35 MW PV system will be installed at the Fred Hervey Water Reclamation Plant, which will offset about 85 percent of annual energy consumption.

Describe any new policies or administrative actions required to implement the project.

No new policies or administrative actions are required to launch the project.

Describe the current design status of the project. If additional design work is required prior to construction, describe the planned process and timeline for completing the design work.

Design activities for the renewable energy project will soon commence. EPWater has developed the following planning schedule to advance project readiness:

- 30 % Design: 10/03/24
- 60% Design: 02/21/25
- 95% Design: 07/15/25
- 100% Design: 10/15/25

Please also include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: complete environmental and cultural compliance; mobilization; begin construction/installation; construction/installation (50% complete); and construction/installation (100% complete).

See schedule below:

October 2024	Pre-award – design activities underway (30% complete)	
December 2024	Grant award	
February 2025	Design activities underway (60% complete)	
July 2025	Design activities underway (95% complete)	
October 2025	Design activities underway (100% complete)	
June 2026	NEPA and Section 106 review complete	
August 2026	All permits secured	
October 2026	Fixed ground racking system installed	**Project 50% complete**
December 2026	Solar panels installed	
January 2027	Inverters installed and solar panels wired	
February 2027	Connection to electric grid	
March 2027	PV system testing	
April 2027	PV system active	**Project 100% complete**
June 2027	Project closeout	

Table 7. *Project schedule*

G. COLLABORATION

1. Is there widespread support for the project?

The Fred Hervey Water Reclamation Plant serves municipal, residential, commercial, and industrial customers. In particular, the wastewater facility supplies major users like El Paso Electric, the Painted Dunes Golf Course, the City of El Paso's Northeast Regional Park, Bowen Ranch, and several construction contractors with reclaimed water. PV adoption at the Fred Hervey Water Reclamation Plant is widely supported by all users. The proposed project will help EPWater conserve water, reduce the region's dependence on fossil fuels, curb greenhouse gas emissions, and save money.

Water conservation and renewable energy efforts enjoy broad backing across El Paso. With EPWater education programs, children learn about the importance of water savings at a young age, and this has contributed to a culture of conservation in the city. Business and elected leaders have advocated for the proposed project and are enthusiastic that both the electric company and water utility are collaborating on the initiative. El Paso Electric and EPWater plan to coordinate on messaging as the project is rolled out.

As part of potential expansion plans on East Bliss, Fort Bliss has been in discussions with El Paso Water to treat wastewater at the Fred Hervey Reclamation Plant. With this in mind, Fort Bliss expressed its interest in EPWater's efforts to introduce renewable energy at the wastewater facility. This important project will help to ensure that Fort Bliss' water needs are met and support its vital nation security mission.

2. What is the significance of the collaboration/support?

The proposed project is the first joint renewable energy project between EPWater and El Paso Electric. PV deployment at the Fred Hervey Water Reclamation Plant will represent an important shift to solar power in the region's energy portfolio. El Paso lags behind many regions in Texas with PV installations. The amount of solar power produced by El Paso Electric remained virtually unchanged from 2016 through 2022. Over that same time, solar generation across the Texas grid rose from 420 gigawatt-hours in 2016 to over 24,000 gigawatt-hours in 2022.

Solar power can help cushion the blow of intense heat waves. The temperature in El Paso regularly breaks 100 degrees. Extreme heat stresses the electric grid, causing breakdowns and outages. Climate change is exacerbating this challenge. PV installation at the Fred Hervey Water Reclamation Plant will help the region to increase its resilience. The project will replace 8,190.8 MWh (8,192,790 kWh) of power generated annually at El Paso Electric's Newman Plant with clean, renewable energy.

3. ***Will this project increase the possibility/likelihood of future water conservation improvements by other water users?***

The new PV system will be an energy sustainability model. Following the project's success, including cost savings, EPWater plans to consider the adoption of renewable energy technologies at its other facilities. Reducing water use at El Paso Electric will help to conserve surface water and protect groundwater reserves in a region experiencing ongoing drought conditions.

EPWater's example will also demonstrate the effectiveness of PV adoption to major electric users in El Paso. The water utility will work with other large electricity consumers within its service territory, including several of our wholesale customers (e.g., Lower Valley Water District, Fort Bliss and El Paso County) to encourage the use of renewable energy to support their operations.

4. ***Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?***

The Fred Hervey Water Reclamation Plant serves municipal, residential, commercial, and industrial customers. PV deployment at the facility will generate water savings for these users (298.0 acre-feet per year), as well as increase the resilience of the region's electric grid.

The project also benefits Fort Bliss, the largest military installation in U.S. Army Forces Command and the second largest in the Army overall. Since 2005, Fort Bliss has seen significant changes, transforming from an institutional training installation into a major mounted maneuver training post. Fort Bliss has nearly quadrupled in size with the arrival of the 1st Armored Division from Germany, a Fires Brigade from Fort Sill, four brigade combat teams, a combat aviation brigade, and other units. Approximately 20,000 service members and their families live on base and more than 80,000 service members and civilian employees and their families live off base in the El Paso community. With 1.12 million acres of land stretching from the western tip of Texas north into New Mexico, Fort Bliss is the largest training area in the United States.

As the nation's top military installation, local infrastructure must support the operational mission of Fort Bliss to maintain America's readiness and boost national security. EPWater provides wastewater services to 55 percent of military families who live in El Paso region through its Fred Hervey Water Reclamation Plant. Fort Bliss is also dependent on the Hueco Bolson aquifer for its water needs. WaterSMART funding will enable Fort Bliss' wastewater needs to be met. Increased Hueco Bolson aquifer recharge efforts will also protect the area's limited water supply.

5. ***Please attach any relevant support documents (e.g., letters of support or memorandum of understanding).***

See attached letters of support.

H. NEXUS TO RECLAMATION

1. ***Does the applicant have a water service, repayment, or operations and maintenance (O&M) contract with Reclamation?***

No.

2. ***If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?***

Yes. Under the Bureau of Reclamation's Rio Grande Project, EPWater has a potential surface water supply of up to about 60,000 AFY of river water rights with typical year allocations closer to 40,000 acre-feet of surface water, which arrives during the irrigation season when water is released from Elephant Butte Reservoir (March to October). The Rio Grande makes up about 40 percent of the city's water supply during a typical year.

In drought years, EPWater has been limited to less than half of its water supply from the Rio Grande Project. Water availability from the Rio Grande Project is greatly impacted by drought since it is a run-of-the-stream supply based upon annual snowmelt in the upper watershed. Native water flows are stored in, and released from, upstream reservoirs to meet the needs of many competing parties that are reliant on the Rio Grande.

Expansion of water conservation efforts will enable El Paso to be more resilient and tolerate reduced water allocations from the Rio Grande.

3. ***Will the proposed work benefit a Reclamation project area or activity?***

Yes. The project will benefit the Rio Grande Project area through water conservation and contribute to better regional resilience. WaterSMART funding will enable El Paso Electric to use 298.0 acre-feet less water per year in energy production. Aquifer recharge efforts will allow EPWater to be more resilient during drought when less Rio Grande Project water is available. The resulting benefit is water supply reliability.

4. ***Is the applicant a Tribe?***

No.

Performance Measures

EPWater will measure performance in the following ways:

Water savings

The proposed PV project will support EPWater's efforts to reduce water use in the region. El Paso Electric's Newman Plant, which uses a combination of gas and oil for its electricity generation, powers the Fred Hervey Water Reclamation Plant. A significant amount of water is used at the Newman Plant for energy production. Boiled water creates steam, which spins turbines to generate electricity. Water also helps to keep the power plant cool. Across the country, thermoelectric plants are the largest sources of U.S. water withdrawals.

According to the U.S. Energy Information Administration, water consumption per megawatt hour (MWh) of electricity at the average fossil-fueled power plant is 11,857 gallons.[4] PV deployment at the Fred Hervey Water Reclamation Plant will replace 8,190.8 MWh (8,192,790 kWh) of fossil fuel-supported electricity annually. The estimated water savings related to improved energy production is 298.0 acre-feet per year.

Upon project completion, EPWater will calculate the solar energy generated at the Fred Hervey Water Reclamation Plant to determine the amount of water saved. The following calculation will be used:

(MWh of solar energy produced per year x 11,857 gallons of water conserved per 1 MWh of fossil-fuel electricity) / 326,000 gallons per acre foot =

acre-feet of water saved annually

Energy generated

Solar panels at the Fred Hervey Water Reclamation Plant are expected to produce 8,192,790 kWh of electricity annually. A 4.35 MW PV system is proposed for the wastewater facility to fully support daytime operations. The solar farm will be operational for 8,790 hours annually. A loss factor of 0.21 is presumed, which includes multiple parameters such as daylight hours, hourly irradiance, angle of the sun, cloud cover, inverter efficiency ratio, and system losses (soiling, shading, wiring, aging, etc.). See calculation below:

[4] https://www.eia.gov/todayinenergy/detail.php?id=50698

4,350 kW PV system x 8,760 total annual hours x 0.21 loss factor =

8,192,790 kWh

EPWater will measure the actual output of the Fred Hervey Water Reclamation Plant's solar energy generation upon project completion.

A final report will be prepared and submitted to the Bureau of Reclamation upon completion of the project.

Environmental and Cultural Resource Considerations

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

The proposed PV deployment involves a solar farm at the Fred Hervey Water Reclamation Plant. The project will take place on 19 acres of land that EPWater owns adjacent to the oxidation ponds on the east side of the facility. Ground disturbance will be minimal, with the installation of a fixed ground racking system where the SunPower SPR-E19-310-COM solar panels (14,028 PV cell modules arranged in 1,169 strings) will be mounted. The solar arrays will also be connected to the electric grid underground.

The only endangered species with potential habitat within the scope of the project are the Least Tern (*Sterna antillarum anthalassos*), Northern Aplomado Falcon (*Falco femoralis septentrionalis*), and Sneed Pincushion Cactus (*Coryphantha sneedii* var. *sneedii*):

- The Least Tern nests on barren to sparsely vegetated sandbars along rivers, sand and gravel pits, lake and reservoir shorelines, and occasionally gravel rooftops. It hovers over and dives into standing or flowing water to catch small fish. There are currently no permanent, or even semi-permanent, water bodies or streams within the project area other than the existing golf course pond. Based upon the existing habitat contained within the project area, the proposed project will have no effect on this species.
- The Northern Aplomado Falcon is native to grassland habitats in Mexico, southern Texas, and the Chihuahuan Desert in New Mexico and Arizona. The species was largely extirpated in western parts of Texas and listed as endangered in 1986. The recovery plan for this species includes re-introduction efforts in south and west Texas. The falcon requires large territories of up to 10,625 acres per nesting pair as described in the Final Environmental Assessment for the Northern Aplomado Falcon (USFWS 2006). Based upon the existing habitat contained within the project area, the proposed project will have no effect on this species.
- Based upon preliminary ground surveys within the project area conducted in March 2018, there are no known occurrences of the Sneed Pincushion Cactus. This species of cactus is more likely found at higher elevations in or near the foothills of the Franklin Mountains.

The U.S. Fish and Wildlife Service also lists two threatened bird species for the project area, the Piping Plover (*Charadrius melodus*) and the Red Knot (*Calidris canutus rufa*). These species are only of concern when wind energy projects are being considered.

No specific impacts to air quality, waters of the United States, endangered species, or habitat are expected. However, coordination with the U.S. Fish & Wildlife Service, U.S. Army Corps of Engineers, TCEQ, Texas Parks and Wildlife Department, Texas and El Paso Historic Commissions, and numerous federal and State regulatory agencies is required to fully comply with current environmental laws. An Environmental Assessment (EA), Habitat Evaluation (HE), and other archeological surveys will be conducted during the planning phase.

Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

The U.S. Fish & Wildlife Service has identified El Paso County as home to eight currently federally-listed threatened and endangered species. Half of these species have been extirpated from the area.

Scientific Name	Common Name	Federal Status	Habitat
Canis lupus	Gray Wolf	Listed Endangered	Forests, brushland, or grassland
Coccyzus americanus occidentalis	Western Yellow-Billed Cuckoo	Threatened	Riparian habitat for nesting
Empidonax traillii extimus	Southwestern Willow Flycatcher	Listed Endangered	Thickets of willow, cottonwood, mesquite, and other species along desert streams
Escobaria sneedii var. *sneedii*	Sneed's Pincushion Cactus	Listed Endangered	Xeric limestone outcrops on rocky, usually steep slopes in desert mountains, in the Chihuahuan Desert succulent shrublands or grasslands
Falco femoralis septentrionalis	Northern Aplomado Falcon	Listed Endangered	Open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus
Mustela nigripes	Black-Footed Ferret	Listed Endangered	Inhabited prairie dog towns in the general area

Sterna antillarum anthalassos	Interior Least Tern	Listed Endangered	Nests along sand and gravel bars within braided streams, rivers; also known to nest on man=made structures (inland beaches, wastewater treatment plants, gravel mines, etc.)
Strix occidentalis lucida	Mexican Spotted Owl	Listed Endangered	Remote shaded canyons of coniferous mountain woodlands (pine and fir)

Table 8. *Threatened and endangered species*

The water savings achieved with PV deployment at the Fred Hervey Water Reclamation Plant will support EPWater's broader Enhanced Arroyo Infiltration Facility project, a two-mile long infiltration basin (from Martin Luther King Jr. Boulevard on the west, easterly to the Painted Dunes Golf Course) that will resemble a stream channel (see Figure 9). Launched in May 2023, EPWater will take treated Rio Grande water and use it to recharge the Hueco Bolson aquifer during plentiful years. Wastewater treated to drinking water standards from the Fred Hervey Water Reclamation Plant will also be piped to the arroyo for infiltration. The project will produce multiple benefits, including groundwater stabilization and increased freshwater availability during prolonged drought. The arroyo will also serve as an amenity for the community with walking trails and landscaping.

Increased water flow to the arroyo will support wetlands. This wetland habitat will benefit numerous non-listed wildlife species common to the area, plus some listed or endangered species such as the Northern Aplomado Falcon, Interior Least Tern, and Southwestern Willow Flycatcher, as well as the threatened Mexican Spotted Owl. The arroyo will also attract birds, mammals, and reptiles that commonly visit the El Paso area for watering, sanctuary, nesting, and breeding purposes.

Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States"? If so, please describe and estimate any impacts the proposed project may have.

Not applicable. No wetlands are within the immediate project area. While water savings as a result of PV deployment will support wetland creation, the created arroyo does not sit on the Fred Hervey Water Reclamation Plant site. A wetland delineation will be established to ensure that the PV project boundaries are outside surrounding wetland areas.

When was the water delivery system constructed?

The Fred Hervey Reclamation Plant opened its doors in 1985 and became one of the first in the nation to treat reclaimed water to drinking water standards and to use portions of the water to recharge the aquifer.

Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

Not applicable. The project will not modify or affect irrigation systems.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

The El Paso County Water Improvement District No. 1 is a political subdivision of the State of Texas that delivers surface water from the Rio Grande in El Paso County, Texas, to water right lands in El Paso County. There are 104 identified structures within the 48,340-acre district. No buildings, structures, or features in the irrigation district will be impacted by the project.

Are there any known archeological sites in the proposed project area?

Not applicable. There are no known archeological sites within the project area.

Will the proposed project have a disproportionate and adverse effect on any communities with environmental justice concerns?

The project will have no adverse impacts on low-income or minority populations. In fact, the project will benefit these distressed populations with increased water reliability and resilience.

Much of the El Paso region is economically disadvantaged. Poverty is higher in the EPWater service area (18.9 percent in El Paso and 19.5 percent across El Paso County) compared to state (13.9 percent) and national (12.5 percent) levels. Median household incomes are also lower in the region ($55,710 in El Paso and $55,417 across El Paso County) in relationship to Texas ($73,035) and the United States ($75,149).

The Fred Hervey Water Reclamation Plant is located in Northeast El Paso and provides wastewater service for that section of the city, which tends to have even lower incomes than other parts of the

community. The wastewater facility's customers are municipal, residential, commercial, and industrial. The service territory includes multiple Census Tracts identified as "disadvantaged" by the White House Council on Environmental Quality's Climate and Economic Justice Screening Tool, including 48141000101, 48141000107, 48141000108, 48141000109, 48141000110, 48141000112, 48141000204, 48141000205, 48141000206, 48141000207, 48141000208, 48141000301, 48141000302, 48141000403, 48141000404, and 48141010207.

A Fred Hervey Water Reclamation Plant served with renewable energy will provide more reliability for marginalized customers. El Paso Electric's Newman Plant depends largely on natural gas within its resource portfolio. The price for natural gas can swing dramatically. Natural gas supply lines froze up across much of Texas during the deadly February 2021 winter storm that blanketed the state, choking off supply and sending the price skyrocketing as utilities competed to buy the same scarce fuel. The shortage of natural gas prevented power plants from running and exacerbated the power shortage. El Pasoans are still paying extra fees on their monthly gas bills to pay off the high-priced natural gas purchased during the storm. Household electric bills also shot up in 2022 after the market price for natural gas doubled that summer over the 2021 level. A solar farm doesn't need fuel, water, or as many employees to operate. The proposed solar project will enable El Paso Electric to reduce its reliance on natural gas and protect customers, including low-income and minority residents, from similar natural gas disruptions and price spikes in the future.

Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on Tribal lands?

Not applicable. The project will not limit access to and/or ceremonial use of Indian sacred sites or result in other impacts on tribal lands.

Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

Not applicable. The project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species.

Required Permits or Approvals

EPWater will work with the Bureau of Reclamation and TCEQ to secure necessary permits and approvals. The utility has already been engaged in activities to expedite the permitting process. The following permits and approvals will be required before construction:

- NEPA review by TCEQ;
- Evaluate and complete a Section 106 permit as part of the National Historic Preservation Act; and
- Complete all required construction permits for the City of El Paso.

Overlap or Duplication of Effort Statement

There is no overlap between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel.

The proposal submitted for consideration under this program does not in any way duplicate any proposal or project that has been or will be submitted for funding consideration to any other potential funding source.

Conflict of Interest Disclosure Statement

Per 2 CFR §1402.112, there is no actual or potential conflict of interest at the time of submission.

Uniform Audit Reporting Statement

EPWater was not required to submit a Single Audit report for the most recently closed fiscal year.

Budget Narrative

The total cost of the project is $9,737,024. EPWater will provide a $4,868,512 match for the project. See attached match commitment letter. The project involves no third-part in-kind costs or cash from other non-Federal entities. There are no other pending funding requests for the proposed project.

Total Project Cost Table

Source	Amount
Costs to be reimbursed with the requested Federal funding	$4,868,512
Costs to be paid by the applicant	$4,868,512
Value of third-party contributions	$0
Total Project Costs	**$9,737,024**

Budget Information Table

Cost Classification	Federal Share	Non-Federal Share	Total Project Cost
Administrative and legal expenses	$0	$0	$0
Land, structures, rights-of-way, appraisals, etc.	$0	$0	$0
Relocation expenses and payments	$0	$0	$0
Architectural and engineering fees	$0	$0	$0
Other architectural and engineering fees	$0	$0	$0
Project inspection fees	$0	$0	$0
Site work	$0	$0	$0
Demolition and removal	$0	$0	$0
Construction	$4,868,512	$4,868,512	$9,737,024
Equipment	$0	$0	$0
Miscellaneous	$0	$0	$0

SUBTOTAL (sum of lines 1-11)	$4,868,512	$4,868,512	$9,737,024
Contingencies	$0	$0	$0
TOTAL PROJECT COSTS	$4,868,512	$4,868,512	$9,737,024

Budget Narrative

The project only includes construction costs. The following expenses will be supported with WaterSMART: Water and Energy Efficiency Grant and local match funding:

- $3,407,958 – Cost of 4.35 megawatts (MW) photovoltaic system at the Fred Hervey Water Reclamation Plant
- $1,363,183 – Cost for cables to connect solar system to the electric grid
- $1,703,980 – Cost for the upgrade of electrical panels of the plant to receive solar power source
- $340,796 – Cost for the upgrade of the plant's instrumentation and controls to use solar power system
- $2,521,107 – Contractual construction cost to install the solar power system equipment. This cost includes labor and equipment to install the solar power systems, contractor overhead and profit, general condition requirements during construction, insurance, and bonds.
- $400,000 – Professional services during construction for management and inspections, estimated at 4% of total project cost.

R E S O L U T I O N

A RESOLUTION AUTHORIZING THE PRESIDENT/CEO TO SIGN AND PROVIDE ANY NECESSARY DOCUMENTS TO COMPLETE SUBMISSION OF A GRANT APPLICATION TO THE U.S. BUREAU OF RECLMATION (USBR) UNDER FUNDING OPPORTUNITY R24AS00052 (WATERSMART WATER AND ENERGY EFFICIENCY GRANTS FOR FISCAL YEAR 2024) IN THE ESTIMATED AMOUNT OF $4,868,512 IN GRANT FUNDS FOR THE SOLAR POWER PROJECT AT THE FRED HERVEY WATER RECLAMATION FACILITY PROJECT ("PROJECT") LOCATED IN EL PASO COUNTY, TEXAS; TO AUTHORIZE EL PASO WATER'S COMMITMENT TO ALLOCATE AN ESTIMATED $4,868,512 IN MATCHING FUNDS TO THE PROJECT IF GRANT FUNDS ARE AWARDED; AND FURTHER AUTHORIZE THE PRESIDENT/CEO TO ENTER INTO ANY RELATED AGREEEMENT AND SIGN AND PROVIDE ANY OTHER DOCUMENTS NECESSARY TO ACCEPT THE GRANT 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 grant funding for research 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 are 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, and reclaimed water projects; and

WHEREAS, EPWater's Solar Power Project at the Fred Hervey Reclamation Plant ("Project") has a current estimated project cost of $9,737,024; and

WHEREAS, the application requests a grant amount of $4,868,512 which is 50% of the Project cost. If grant funds are awarded, EPWater will be responsible for allocating funds for the remaining Project costs in the amount of $4,868,512; and

WHEREAS, EPWater determined that the Project meets the objective and requirements outlined under the Grant and will be submitting a proposal to obtain grant funding for the project; and

WHEREAS, USBR requires a resolution of this type for complete submittal of a formal application for such grant funds and EPWater determined that the Project meets the objective and requirements outlined under the Grant and will be submitting a proposal to obtain grant funding for the project; and

WHEREAS, the El Paso Water Utilities Public Service Board ("Board") desires to authorize the President/CEO to sign any and all required documents by USBR to complete the submission of EPWater's grant application for the Grant and to authorize the President/CEO to sign and provide any and all required

documents for the acceptance of Grant funding, including a grant agreement; and

WHEREAS, if grant funds are awarded, the Board further authorizes EPWater's commitment to allocate an estimated $4,868,512 to the Project as the estimated EPWater contribution to the cost of the Project.

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, has reviewed and supports the City of El Paso's application for the funding opportunity R24AS00052 "WATERSMART WATER AND ENERGY EFFICIENCY GRANTS FOR FISCAL YEAR 2024" in the estimated amount of $4,868,512 in grant funding for purchase and installation of the Solar Power Project at the Fred Hervey Water Reclamation Facility Project located in El Paso, El Paso County, Texas.

Section 3. That the PSB hereby authorizes the President/CEO to sign and provide any and all documents necessary to complete the submission of EPWater's grant application and to accept grant funds in connection with this Grant for the Project, including a grant agreement.

Section 4. That the PSB authorizes EPWater's funding commitment to allocate an estimated $4,868,512 to the Project as the estimated EPWater contribution to the cost of the Project if Grant funds are awarded to EPWater by the U.S. Bureau of Reclamation under Funding Opportunity R24AS00052.

Section 5. That the PSB agrees to conduct this project, if awarded, according to all of the water planning, environmental, engineering and renewable energy reporting and accounting procedures required by the USBR.

PASSED AND APPROVED at the regular meeting of the Public Service Board, this 14th day of February 2024 at which meeting a quorum was present, held in accordance with the provisions of Texas Government Code, Sections 551.001, et. seq.

Signatures appear on the following page.

EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD

Ivonne Santiago, Chair

ATTEST:

Charlie Intebi, Secretary-Treasurer

APPROVED AS TO FORM:

Daniel Ortiz,
General Counsel

APPROVED AS TO CONTENT:

Arturo Duran,
Chief Financial Officer

el paso WATER

February 21, 2024

The Honorable Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

RE: Match Commitment

Dear Commissioner Touton:

This letter is to confirm the match commitment for a WaterSMART: Water and Energy Efficiency Grant. El Paso Water will provide $4,868,512 in non-federal funds to match a $4,868,512 WaterSMART award for our Fred Hervey Water Reclamation Plant Solar Panel Project.

We look forward to your review of this important project and appreciate your consideration of our funding request. Let me know if you need any additional information on this matter.

Sincerely,

John E. Balliew, P.E.
President/CEO

1154 Hawkins Blvd. P.O. Box 511 El Paso, TX 79961-0511 915.594.5500

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

Congress of the United States
House of Representatives
Washington, DC 20515

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EL PASO OFFICE:
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EL PASO, TX 79901
(915) 541-1400

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CONGRESSIONAL HISPANIC CAUCUS
NEW DEMOCRAT COALITION

February 1, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240-0001

RE: Support for El Paso Water's WaterSMART Water and Energy Efficiency Grant Application

Dear Commissioner Touton:

I am writing to express to you and the U.S. Bureau of Reclamation my staunch support for the WaterSMART Water and Energy Efficiency grant application from El Paso Water for their Fred Hervey Solar Project. Through this grant application, El Paso Water is requesting $4,868,512 (50%).

El Paso Water seeks federal resources to support the installation of a self-sustaining solar energy system at its Fred Hervey Water Reclamation Plant. The Bureau of Reclamation investment would help El Paso Water reduce fossil fuel use, curb greenhouse gas emissions, and conserve water.

The Fred Hervey Water Reclamation Plant treats 12 million gallons of wastewater daily from nearby homes, businesses, and industries. Reclaimed water is cleaned to drinking water standards and used to replenish the aquifer through injection wells and infiltration basins. Every gallon of reclaimed water reduces the amount of water pumped from the Hueco Bolson aquifer or diverted from the Rio Grande. Plant operations are currently served by electricity from El Paso Electric. The proposed project will install solar equipment to power the facility. Federal investment will help El Paso Water reduce carbon pollution, conserve water used in electricity generation, and support other environmental benefits.

El Paso Water has determined that the placement of solar photovoltaic technology across 19 acres of land adjacent to the plant will produce an estimated 11 million kWh per year, meeting 100% of the plant's electricity needs during the day. This project will support the unprecedented functionality of this major plant as one of the first of its kind to successfully clean reclaimed water to a drinking water standard and subsequently use it to recharge their aquifer.

El Paso Water is a globally recognized leader in water innovation. I kindly request that you give your full and fair consideration, consistent with applicable laws and regulations, to El Paso Water's grant application. Please contact my Grants Coordinator, Mr. Manny Rodriguez, at 915-541-1400 or Manny.Rodriguez@mail.house.gov, with any developments or if you have any questions.

Sincerely,

Veronica Escobar

Veronica Escobar
Member of Congress

RICARDO SAMANIEGO
El Paso County Judge

February 16, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240-0001

Re: Support for El Paso Water's WaterSMART Water and Energy Efficiency Grant Application

Dear Commissioner Touton:

I write to express my support for El Paso Water's application for the Bureau of Reclamation's WaterSMART Water and Energy Efficiency grant funding. El Paso Water seeks federal resources to support the installation of a self-sustaining solar energy system at its Fred Hervey Water Reclamation Plant. This investment from the Bureau of Reclamation will help El Paso Water to reduce fossil fuel use, curb greenhouse gas emissions, and improve the health of El Paso County residents.

The Fred Hervey Water Reclamation Plant treats 12 million gallons of wastewater daily from nearby homes, businesses, and industries. Reclaimed water is cleaned to drinking water standards and used to replenish the aquifer through injection wells and infiltration basins. Every gallon of reclaimed water reduces the amount of water pumped from the Hueco Bolson aquifer or diverted from the Rio Grande. Plant operations are currently served by electricity from El Paso Electric. The proposed project will install solar equipment to power the facility. Federal investment will help El Paso Water to reduce carbon pollution, conserve water used in electricity generation, and support other environmental benefits.

I support El Paso Water's renewable energy project because it promises improvement to the health of the residents of El Paso County. With the aim to reduce fossil fuel use – thus helping lower associated greenhouse gas emissions – the proposed solar project would bring relief to the numerous El Paso County residents who suffer from cardiac and respiratory illness. In addition to this important advancement, the project will also lower energy costs and increase water conservation – all of which will benefit our region as a whole.

I respectfully urge your thorough and fair consideration of El Paso Water's application in accordance with all applicable rules and regulations. If you have any questions or concerns, please do not hesitate to contact me at (915) 546-2098.

Sincerely,

Ricardo A. Samaniego

Ricardo A. Samaniego
El Paso County Judge

500 East San Antonio Street | Suite 301 | El Paso, Texas 79901
CountyJudge@EPCounty.com

OSCAR LEESER
MAYOR

February 15, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240-0001

Re: Support for El Paso Water's WaterSMART Water and Energy Efficiency Grant Application

Dear Commissioner Touton:

As Mayor of the City of El Paso, I want to express my full support for El Paso Water's application for the Bureau of Reclamation's WaterSMART Water and Energy Efficiency grant funding. El Paso Water seeks federal resources to support the installation of a self-sustaining solar energy system at its Fred Hervey Water Reclamation Plant. Bureau of Reclamation investment will help El Paso Water to reduce energy consumption, conserve water and increase sustainability.

The Fred Hervey Water Reclamation Plant treats 12 million gallons of wastewater daily from nearby homes, businesses, and industries. Reclaimed water is cleaned to drinking water standards and used to replenish the aquifer through injection wells and infiltration basins. Every gallon of reclaimed water reduces the amount of water pumped from the Hueco Bolson aquifer or diverted from the Rio Grande. Plant operations are currently served by electricity from El Paso Electric. The proposed project will install solar equipment to power the facility. Federal investment will help El Paso Water to reduce carbon pollution, conserve water used in electricity generation, and support other environmental benefits.

As mayor, I sit on the governing board of the utility, which is why I understand the importance of this proposed renewable energy project. The self-sustaining solar energy system has several benefit for the utility and the city. It will help reduce the utility's energy costs, saving ratepayers money. It will increase conservation, which will help preserve our aquifers. Most importantly, it will increase the overall sustainability of the utility, which is critical for not just our current residents but for future generations of El Pasoans as well. Please give El Paso Water's grant application your full consideration.

Sincerely,

Oscar Leeser
Mayor

THE BORDERPLEX ALLIANCE
C . El Paso · Las Cruces

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL
2021 ECONOMIC DEVELOPMENT ORGANIZATION OF THE YEAR

February 15, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240-0001

Re: Support for El Paso Water's WaterSMART Water and Energy Efficiency Grant Application

Dear Commissioner Touton:

On behalf of the Borderplex Alliance, I want to express my full support for El Paso Water's application for the Bureau of Reclamation's WaterSMART Water and Energy Efficiency grant funding. El Paso Water seeks federal resources to support the installation of a self-sustaining solar energy system at its Fred Hervey Water Reclamation Plant. Bureau of Reclamation investment will help El Paso Water to increase efficiency in its operations by lowering fuel costs as well as reducing energy consumption and greenhouse gas emissions.

The Fred Hervey Water Reclamation Plant treats 12 million gallons of wastewater daily from nearby homes, businesses, and industries. Reclaimed water is cleaned to drinking water standards and used to replenish the aquifer through injection wells and infiltration basins. Every gallon of reclaimed water reduces the amount of water pumped from the Hueco Bolson aquifer or diverted from the Rio Grande. Plant operations are currently served by electricity from El Paso Electric. The proposed project will install solar equipment to power the facility. Federal investment will help El Paso Water to reduce carbon pollution, conserve water used in electricity generation, and support other environmental benefits.

Our mission at the Borderplex Alliance is to bring jobs, hope and opportunity to the Borderplex region, which includes El Paso and the surrounding communities. As such, we support El Paso Water's renewable energy project because it will bring efficiencies to the utility that we often seek in economic development projects. The aim of reducing energy consumption and fossil fuel usage will have a real impact on the bottom line of the utility, in turn benefitting its residential and industrial customers. The project also has the added benefit of continued water conservation, which has enormous value to our region – the most arid in Texas – as it helps preserve water for population growth and future business expansion in the region.

With these benefits and many other benefits to the Borderplex region in mind, please give full consideration to El Paso Water's grant application.

Sincerely,

Jon Barela
CEO
The Borderplex Alliance