



**Water Accountability Through Efficient Response (WATER):
Installation of 500 smart water meters**

**City of Edinburg
415 W University Dr.
Edinburg, TX 78541**

**Project Manager:
Gerardo Carmona Jr., P.E., Director of Utilities
415 W University Dr.
Edinburg, TX 78541
956.388.8212
gcarmona@cityofedinburg.com**

April 26, 2022

**Fiscal Year 2022 WaterSMART Grants:
Small-Scale Water Efficiency Projects**

Table of Contents

Description	Page Number
Title Page	I
Table of Contents	II
Technical Proposal	1-13
Executive Summary	1
Project Location	1
Project Description	2
Evaluation Criteria	2
Environmental and Cultural Compliance	14
Required Permits and Approvals	16
Budget Narrative	17
Letters of Support	19
Official Resolution	20

Technical Proposal and Evaluation Criteria

Executive Summary

Date: April 21, 2022

Category A Applicant: City of Edinburg

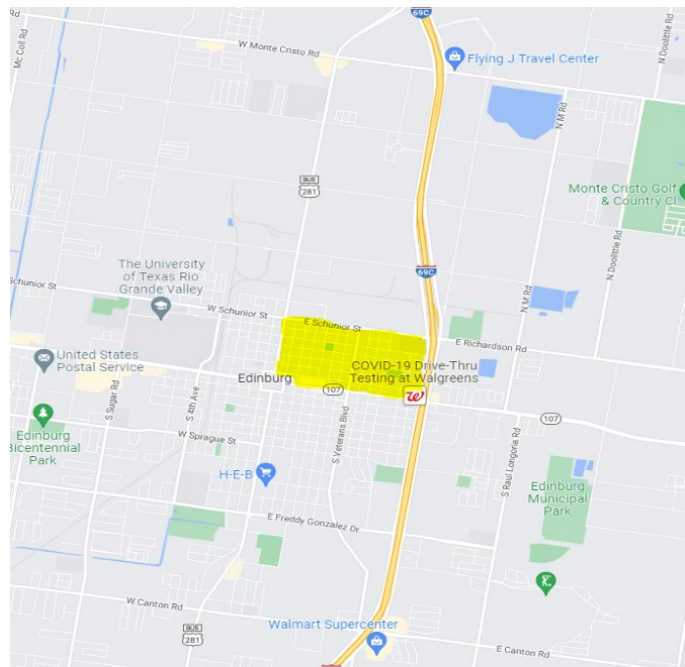
Applicant City/State: Edinburg, TX

Applicant County: Hidalgo County

Nestled in the county seat of Hidalgo County, the City of Edinburg (100,243 population) is centrally located in the 4-county area at the southernmost tip of Texas known as the Rio Grande Valley (RGV). Less than 15 miles from the U.S.-Mexico border and the Rio Grande River Basin, Edinburg is an anchor for the Texas-Mexico border region (RGV's estimated population is 1.5 million), and the McAllen-Edinburg-Mission metro area, Texas' fifth largest metropolitan statistical area. In accordance with the 2021 Rio Grande Regional Water Plan, the City plans to conserve water by replacing 500 outdated water meters with smart meters in an underserved residential area. Through this installation, the City will better manage and track water usage and detect leaks early to help conserve water. The digitization of data will allow the City to spend less time manually reading meters and using their time more efficiently to address leaks and citizens' needs promptly. The project is estimated to take a total of 20 months which includes review and execution of grant award documentation, coordination and procurement of smart meters, installation, and project implementation. The expected completion date is anticipated to be December 2024. The proposed smart water meters will not be installed in a federal facility.

Project Location

The City of Edinburg's Water Accountability Through Efficient Response (WATER) Project is located in Hidalgo County, Texas within the Edinburg City Limits. The WATER project is approximately 20 miles north of the Rio Grande River Basin. The project latitude is 26° 18.498093'N and the longitude is 98° 9.657129'W. The proposed smart water meters will be installed in an underserved residential area within the following boundaries (highlighted on the map): Business 281 to I-69C and from Highway 107 to E. Schunior Street.



Technical Project Description

The City of Edinburg will install 500 smart meters to replace outdated Positive Displacement (PD) meters. The City will be purchasing flowIQ 2250 – AMI 5/8-3/4 ecofriendly composite PPS smart meters run by D-cell batteries with a life expectancy of 20 years, a 10-year increase from the existing brass Positive Displacement meters currently in place. They are pre-programmed with dual-band radio to transmit information to existing collector antennas using ultrasonic technology. The City will schedule and notify citizens of a temporary water valve shut off to allow staff to manually remove old meters to replace them with smart meters. The City has an existing collector mounted on a nearby water tower that will receive data from installed smart water meters to notify the City of water usage and potential leaks.

Evaluation Criteria

E1.1. Evaluation Criteria A – Project Benefits

Describe the expected benefits to the applicant’s water delivery system. Address the following:

- **Clearly explain the anticipated water management benefits to the applicant’s water supply delivery system and water customers.**

The City of Edinburg is proactively working toward outfitting Citywide water delivery systems with smart water meters to better conserve water. Currently, 33 percent of Edinburg meters are smart water meters. By the end of next month (May 2022), 60 percent of the City’s approximately 31,700 total water meter infrastructure will be smart water meters, approximately 19,020. Accordingly, there is a critical need and infrastructure gap to replace approximately 9,510 meters. With the help of the Bureau of Reclamation, the City will be able to speed up the replacement process and assist in large-scale water conservation efforts. The City has been installing smart meters since early 2020 and have seen a major decrease in daily water usage per person despite the accelerated population growth. In 2020, the City had a serviced population of 88,863 that used an average of 78.12 gallons of water per day. In 2021, after the partial installation of smart meters, the population increased to 97,619 citizens that averaged a daily use of 56.99 gallons per day, a 27 percent decrease despite the fast-tracked 10 percent population gain. Based on this data the City can conclude that the increased use of smart meters will help decrease the amount of daily water used even further and prevent water loss. By replacing outdated positive displacement meters with new smart meters, the City will better manage and track water usage by digitizing water tracking systems. The new smart meters feature acoustic leak detection, securing that water loss is discovered quickly and responded to promptly. The smart meters will also grant citizens with the ability to track their usage online and assure compliance with the City’s water conservation efforts. With these measures in place, the City will be able to conserve water efficiently, optimize staff time, and positively impact the surrounding environment, including the Rio Grande River Basin. The smart meters will be installed in an underserved residential area, with a history of high amount of leaks and high bill rates due to the City’s inability to manually check residential water meters because of residential obstacles (pets, locked gates, unresponsiveness, etc.). This forces the City to rely on prediction-

based methods to bill citizens based on past water usage. With the upgraded infrastructure, the City will no longer have to depend on prediction-based methods. Instead, the City will be able to track accurate data to bill citizens based on actual water usage. By using smart meters, the City will identify leaks quickly and accelerate the staff's reaction time to reduce wasted water.

Explain the significance of the anticipated water management benefits for the applicant's water delivery system and customers. Consider:

- **Are customers not currently getting their full water right at certain times of year?**

Historically, citizens have filed more complaints of high bill rates in the summer season. This is due to various reasons such as long drought periods, faulty sprinkler systems, and undetected leaks. Outdated meters must be manually reviewed and tracked which prolongs staff response time to leaks and high water usage. Through the installation of smart meters, both citizens and the City will have greater access to tracking these issues earlier to ensure water conservation measures are being followed and water loss is mitigated because of smart meter detection that triggers faster staff response time.

- **Does this project have the potential to prevent lawsuits or water calls?**

Yes; Through efficient and accurate reports, the City will be able to provide reliable information to citizens and agencies.

- **What are the consequences of not making the improvement?**

Without the implementation of smart meters, the City will continue to rely on manual meter reading methods which reduce accuracy of meter reading in areas that are not easily accessible, thus relying on prediction-based methods. The City will also struggle in identifying water leaks early and contribute to loss of water, especially dangerous in long periods of drought due to climate changes and regional climate. By not making immediate improvements, water conservation will be delayed and vulnerable to further budget constraints.

- **Are customer water restrictions currently required?**

Yes. To promote water conservation, the City developed the 2020 Voluntary Water Conservation Plan that designates days of the week that certain home addresses may use water for irrigation, washing mobile equipment and refilling swimming pools. Odd addresses will use water for the mentioned activities on Wednesdays and Saturdays while even addresses will take place on Thursdays and Sundays. With the implementation of smart meters, the City will be able to better manage customer water usage to ensure that these practices are being followed by citizens.

- **Other significant concerns that support the need for the project.**

By replacing Positive Displacement meters with smart meters the City of Edinburg will be able to better manage, track, and bill water consumption in residential areas. The smart meters can benefit the community during declared disasters as well. During the Texas Severe Winter Storms (4586-DR-TX) in February 2021, Edinburg experienced freezing, record-breaking temperatures which caused catastrophic and immobilizing water outages, threatening public health and safety. Because of the smart meters Edinburg had in place, the City's staff was alerted immediately to

broken customer water lines and responded accordingly. Based on historical patterns, the City predicts future winter storms, which makes it imperative that outdated water infrastructure is improved for the safety and benefit of the community. In times of drought, it is vital that the community has water reserved in place for citizen use. With smart meters, we can ensure that water is being managed efficiently so the Rio Grande River Basin is able to provide the City water to store in existing water towers.

Broader Benefits:

Describe the broader benefits that are expected to occur as a result of the project.

Consider:

- **Will the project improve broader water supply reliability at sub-basin or basin scale?**

Yes. By reducing the amount of wasted water in the City of Edinburg, we will improve the conservation efforts of the Rio Grande River Basin.

- **Will the proposed project increase collaboration and information sharing among water managers in the region? Please explain.**

Yes. Smart meters will digitize and store data that will create accurate and detailed reports that can benefit collaborative efforts long-term. The City is currently collaborating with multiple cities and counties to mitigate water conservation throughout the region, specifically with the City of McAllen and the North Alamo Water Supply Company. Internally, the requested smart water meters will be compatible with the existing smart water infrastructure already in place within the City, which will soon reach a 60 percent completion rate Citywide. The City has an existing collector mounted on a nearby water tower that will receive data from installed smart water meters to notify the City of water usage and potential leaks.

- **Will the proposed project positively impacts/benefit various sectors and economies within the applicable geographic area (e.g., impacts to agriculture, environment, recreation, and tourism)? Please explain.**

The City of Edinburg's proposed WATER project will benefit the local economy by providing residents with accurate data and greater access to their water consumption. This will allow for residents in the project area to gain a better understanding of their water usage and manage their consumption to alleviate financial stress. Environmentally, the smart meters will reduce water usage and leaks, increase drought resiliency, and improve irrigation practices with the most impact to decrease loss of water. The project's service area includes commercial businesses and retail shops that will also indirectly benefit from the prevention of water loss.

- **Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the districts water supply)? Please explain.**

Not Applicable

- **Will the project help address drought conditions at the sub-basin or basin scale? Please explain.**

Yes. The Rio Grande River Basin is located approximately 20 miles south of the proposed project site and is the source of the water used by the City. The water conserved through the installation of smart water meters will indirectly support the conservation of the Rio Grande River so the water may be used more efficiently by the New Mexico and Texas border regions.

E1.2. Evaluation Criterion B – Planning Efforts Supporting the Project

Plan Development:

Describe how your project is supported by an existing planning effort. Identify the planning effort and who developed it. If the planning effort was not developed by the applicant, describe the applicant’s involvement in developing the planning effort.

The City of Edinburg’s Department of Utilities created a Five-Year Capital Improvement Program (CIP) schedule for Fiscal Years 2021 through 2025, committing to replacing 100 percent of outdated meters with smart meters. As per the Five-Year CIP, the City projected that it will require approximately \$6.8 million in funds to complete this project. With the assistance of the Bureau of Reclamation, the City will be able to meet their goals ahead of schedule to further improve conservation efforts and infrastructure improvements. The City also contributed to the 2021 Rio Grande Regional Water Plan in collaboration with Region M which consists of Hidalgo, Webb, Zapata, Maverick, Cameron, and Jim Hogg counties. The Plan consisted of multiple strategies the counties will use over the span of five years to conserve water usage and improve water systems including improvements in infrastructure, water recovery, and improvements in urban and rural areas. The City contributed to the writing and planning of the five-year Plan by committing to the efforts and providing data to determine areas of improvement. The City has pledged to participate in the water conservation efforts.

Support for the Project:

Describe to what extend the proposed project is supported by the identified plan. Address the following:

- **Is the project identified specifically in the planning effort?**

Yes. The City of Edinburg created a Five Year Capital Improvement Program Schedule for Fiscal Years 2021-2025. It was projected that the City will require a total of \$6.8 million to completely update the outdated water meters into smart meters. This grant will allow the City to complete this project sooner than anticipated and target areas of need faster. The City’s 2019 Water Conservation and Drought Contingency Plan also calls for the replacement of outdated meters: “Older meters that may be over or under-registering will be replaced as time permits in order to accurately account for...lower unaccounted-for water losses.”

- **Explain whether the proposed project implements a goal or addresses a need or problem identified in the existing planning effort?**

The Five Year Capital Improvement Program Schedule and the Region M collaboration plan both focus on improving outdated infrastructure to conserve water and safely deliver water to citizens. The City’s proposed project contributes to this goal by requesting funds to replace

outdated meters with smart meters. Additionally, this project addresses and aligns with the goal outlined above in the City’s 2019 Water Conservation and Drought Contingency Plan.

- **Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.**

The existing planning efforts recognize that there is a need for updated water infrastructure in underserved communities. As such, the City of Edinburg has prioritized smart water meters during the City’s annual budget process. In Fiscal Year 2021-2022, approximately \$2.25 million was allocated to procure 7,250 smart water meters to replace outdated water meters that increased risk of water loss. The City is currently awaiting the delivery of this batch of meters and will install by the end of May 2022. While this will expand the City’s smart meter infrastructure to approximately 60 percent, 40 percent of the fast-growing community is still vulnerable to water loss with outdated water meters.

E1.3 Evaluation Criterion C – Implementation and Results

Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.

Timeline	
Plan	Timeframe
Award notifications	March 31, 2023
Review and execution of grant award documentation	April 2023
Coordination, procurement and arrival of smart water meters	May 2023-February 2024
Testing and installation	March 2024-November 2024
Project implementation, close-out reporting and finalization	December 2024
Total Project Time	20 months
These target dates can be adjusted, based on the award date.	

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

The City of Edinburg does not anticipate that this project will require any permits and/or a full NEPA assessment. Upon the BOR’s review, the City will adhere with any environmental and cultural resource compliance terms and conditions.

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

Not applicable

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

If awarded, the City of Edinburg's Utilities Department will need Edinburg City Council approval to procure the requested smart water meters. This action will take place at a regularly-scheduled City Council meeting. Meetings take place the first and third Tuesdays of the month. This is a standard practice for any purchase over \$30,000. No delays are anticipated and this is accounted for in the project timeline.

Describe the timeline for completion of environmental and cultural resource compliance. Was the timeline for completion of environmental and cultural resource compliance discussed with the local Reclamation office?

The City of Edinburg does not anticipate that this project will require a full NEPA assessment. Upon the BOR's review, the City will adhere with any environmental and cultural resource compliance terms and conditions. If determined necessary, the tasks will be completed concurrently during the following steps: review and execution of grant award documentation; and the coordination, procurement and arrival of smart water meters.

E1.4. Evaluation Criterion D—Nexus to Reclamation

Is the proposed project connected to a Reclamation project or activity? If so, how? Please consider the following:

Does the applicant receive Reclamation project water?

Yes, the City of Edinburg receives water from the Rio Grande River which is part of multiple Reclamation projects.

Is the project on Reclamation project lands or involving Reclamation facilities?

The City of Edinburg is part of Region M in Texas, which is considered within Reclamation's Rio Grande Project.

Is the project in the same basin as a Reclamation project or activity?

The proposed project will have an indirect effect on the Reclamation's Rio Grande Project and the Lower Rio Grande Rehabilitation Project.

Will the proposed work contribute water to a basin where a Reclamation project is located?

Yes. The proposed project correlates with the Reclamation's Rio Grande Project's goal of ensuring that water is conserved for efficient use in irrigation and electric power across Texas and New Mexico. The conservation of water in the City of Edinburg through the installation of smart meters will strengthen and improve water conservation practices that will lead to increased amounts of water in the Rio Grande River. The proposed project also indirectly helps support the

Reclamation’s Lower Rio Grande Rehabilitation Project. Although the City of Edinburg is not directly impacted by the Reclamation Project, the conservation of water in the City will contribute water to the Rio Grande Basin.

E.1.5. Evaluation Criterion E—Presidential and Department of the Interior Priorities

E.1.5.1. Sub-criterion No. E1. Climate Change

Combating the Climate Crisis:

Please describe how the project will address climate change, including:

- **Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.**

As per the FEMA-approved 2021 Hidalgo County Hazard Mitigation Plan, the City of Edinburg is considered to be experiencing severe drought. This has led to crop and pasture loss, increased fire risk, water shortages, and imposed water restrictions. Based on available records of historic events, there have been 16 extended time periods of drought (ranging in length from approximately 30 days to over 540 days) within a 24-year reporting period, which provides a probability of one event every one to two years. This frequency supports a highly likely probability of future events. The implementation of the proposed project to replace 500 outdated water meters with smart meters will help the City conserve water and improve drought conditions. By conserving water, the City can monitor water usage and improve the amount of water in reserves to ensure that all sectors of the community are taken care of in times of drought. In February 2020 a severe drought was recorded and negative impacts were seen among the agricultural and residential sectors. The City struggled to meet the water needs of the community up until May 2020. Events such as the one stated can be avoided with the increased installation of smart meters that will prevent unnecessary water loss and alleviate drought impact.

- **Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?**

The proposed project of installing 500 smart meters will increase the amount of stored water by reducing the amount of wasted water using immediate leak detection technology. The City will be able to address water loss incidents at a faster rate than before which will improve the community’s resiliency to climate change.

E.1.5.2. Sub-criterion No. E2. Disadvantaged or Underserved Communities

Will the proposed project serve or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety by addressing water quality, new water supplies, or economic growth opportunities.

Yes. The City’s proposed WATER Project will improve water quality by reducing unwanted particles from water systems by replacing outdated brass meters with sustainable polyphenylene sulfide (PPS) and fiberglass smart meters that are free from lead and other toxic metals. Smart meters are processed using only materials that have been approved for drinking water followed

by being thoroughly disinfected during the manufacturing process before being dispatched for installation. As an added measure to support public health and safety, the proposed smart meters measure water and ambient temperatures respectively to warn the City's Utilities Department staff of potential frost damages or water quality issues.

Please describe in detail how the community is disadvantaged based on a combination of variables that may include:

- **Low income, high and/or persistent poverty**

The City of Edinburg's proposed WATER Project is located within Census Tract 236.01, an Area of Persistent Poverty. This means that the area has a poverty rate of at least 20 percent as measured by the 2014–2018 5-year data series available from the American Community Survey of the Bureau of the Census. The project area is a low- to moderate-income residential area meaning that this project will principally benefit households that earn equal to or less than 80 percent of the area's median income.

Edinburg is a historically impoverished community with limited resources. More than one in five Edinburg citizens lives in poverty. Edinburg's poverty rate is 22.6 percent, almost 10 points above Texas' 13.4 percent, and almost double the national poverty rate of 11.4 percent (U.S. Census Bureau).

- **High unemployment and underemployment**

The City of Edinburg continues to lag behind Texas and the United States on traditional economic indicators, especially unemployment. While the national unemployment rate for 2021 was 5.36%, Edinburg's was 6.4% and Edinburg's MSA was 9.3%, both well above the national and state of Texas (5.7%) rates. In 2020, COVID-19's ripple effects caused further financial need that was out of the community's hands. While the national unemployment rate for 2020 was 8.09% and Texas' was 7.7%, Edinburg's was close to 9% at 8.6%. The Edinburg MSA's 2020 unemployment rate was 11.7%. Pre-pandemic, Edinburg's 2019 unemployment rate was 4.4%, almost one point above the national rate of 3.6% and Texas' rate of 3.5%. The Edinburg MSA's 2019 unemployment rate was even higher at 6.3% (U.S. Bureau of Labor Statistics).

The economic distress that has burdened the community in recent years has exacerbated the high unemployment rates that have plagued Edinburg for decades.

Additionally, approximately three of four Edinburg citizens do not have a college degree, further demonstrating the community's disadvantages. While the percentage of persons 25 years of age or older with a Bachelor's degree or higher is 32.9% for the US, the percentage is almost six points lower for Edinburg's 27.0% (U.S. Census Bureau).

- **Racial and ethnic residential segregation, particularly where the segregation stems from discrimination by government entities**

Nestled in the county seat of Hidalgo County, the City of Edinburg (100,243 population) is centrally located in the 4-county area at the southernmost tip of Texas known as the Rio Grande Valley (RGV). Edinburg is known as the "Gateway City" because of its gateway to Interstate 69, formerly known as U.S. Highway 281 and NAFTA highway. Less than 15 miles from the U.S.-Mexico border, Edinburg's population is 87.7% Hispanic, 7.8% White, 2.2% African American,

1.9% Asian, 0.2% American Indian; and 0.1% native Hawaiian and other Pacific Islander. Given its border proximity and negative stereotypes associated with the border, the region has been underserved and disadvantaged for decades.

- **Linguistic isolation**

Over 75% (75.1%) of citizens speak a language other than English at home in Edinburg. This linguistic isolation in Edinburg represents more than double and triple the amounts for the state and nation. Statewide, the number of citizens who speak a language other than English at home is only 35.1% and the national percentage is only 21.5% (U.S. Census Bureau).

- **High housing cost burden and substandard housing**

As per the the City of Edinburg’s 2020 Analysis of Impediments, there are 31,755 Hispanic households in the McAllen-Edinburg-Mission Metropolitan Statistical Area with a severe housing cost burden, 17.31% of all 183,415 Hispanic households in the region. Severe housing cost burden is defined as greater than 50% of income.

- **Distressed neighborhoods**

Historic poverty and high unemployment rates have plagued the City of Edinburg for decades. In addition to these economic metrics negatively affecting the City’s proposed WATER Project area, the project area is also disadvantaged with low access to food. As per the USDA Economic Research Service’s Food Access Research Atlas, the project area is low income and low access. This means that the project area is located in a low-income Census Tract where a significant number of residents are more than one mile from the nearest supermarket, further reflecting the community’s disadvantages.

- **High transportation cost burden and/or low transportation access**

The City of Edinburg continues to construct new and improve existing transportation infrastructure to improve connectivity and safe mobility. However, addressing the basic infrastructure needs of the growing community is a challenge with Edinburg’s limited resources.

In the City’s 2019 Citizen Survey, two of the top three priorities identified by citizens were “maintenance of city streets” (No. 1 priority) and “flow of traffic and congestion management” (No. 3 priority), underscoring the transportation challenges Edinburg is grappling with.

While 1.5% of Texans walk to work, 2.2% of Edinburg residents walk to work, demonstrating Edinburg’s increased need for safer pedestrian improvements (2019 ACS 5-Year Estimates – Selected Economic Characteristics). Additionally, while the percentage of Texans with no vehicles available is 5.3%, Edinburg’s percentage is higher at 5.6% (2019 ACS 5-Year Estimates – Selected Housing Characteristics), reinforcing Edinburg’s need for an efficient, safe pedestrian network.

- **Disproportionate environmental stressor burden and high cumulative impacts**

As per the FEMA-approved 2021 Hidalgo County Mitigation Action Plan, Edinburg and Hidalgo County are prone to extremely heavy rains and flooding. While flooding is a well-known risk, Hidalgo County is susceptible to a wide range of natural hazards, including but not limited to

tornadoes, hurricanes, drought, and winter storms. These life-threatening hazards can destroy property, disrupt the economy, and lower the overall quality of life for individuals.

The plan indicates the following: Texas is considered one of the more vulnerable states in the U.S. to both abrupt climate changes and to the impact of gradual climate changes to the natural and built environments. Megadroughts can trigger abrupt changes to regional ecosystems and the water cycle, drastically increase extreme summer temperature and fire risk, and reduce availability of water resources, as Texas experienced during 2011-2012. Paleoclimate records also show that the climate over Texas had large changes between periods of frequent megadroughts and the periods of mild droughts that Texas is currently experiencing. While the cause of these fluctuations is unclear, it would be wise to anticipate that such changes could occur again and may even be occurring now.

- **Limited water and sanitation access and affordability**

The City of Edinburg anticipates that the financial strain caused by undetected water leaks will be alleviated with the requested smart water meters. As part of the WATER Project, the requested 500 smart meters will be installed in a low-income residential area. Citizens will benefit by having a digital tracking system in which they can monitor their water usage to alleviate the financial strain caused by outdated meters that are not equipped to alert residents of water leaks until a high monthly water bill arrives, especially in times of drought.

- **Disproportionate impacts from climate change**

The City of Edinburg is located less than 100 miles from the Gulf Coast, increasing the likelihood of hurricanes and tropical storms. As per the FEMA-approved 2021 Hidalgo County Mitigation Action Plan, Edinburg and Hidalgo County are prone to extremely heavy rains and flooding. While flooding is a well-known risk, Hidalgo County is susceptible to a wide range of natural hazards, including but not limited to tornadoes, hurricanes, drought, and winter storms. These life-threatening hazards can destroy property, disrupt the economy, and lower the overall quality of life for individuals.

The plan indicates the following: Texas is considered one of the more vulnerable states in the U.S. to both abrupt climate changes and to the impact of gradual climate changes to the natural and built environments. Megadroughts can trigger abrupt changes to regional ecosystems and the water cycle, drastically increase extreme summer temperature and fire risk, and reduce availability of water resources, as Texas experienced during 2011-2012. Paleoclimate records also show that the climate over Texas had large changes between periods of frequent megadroughts and the periods of mild droughts that Texas is currently experiencing. While the cause of these fluctuations is unclear, it would be wise to anticipate that such changes could occur again and may even be occurring now.

- **High energy cost burden and low energy access**

Given the City of Edinburg's high poverty rate (22.6%), most residents are faced with a high energy cost burden.

- **Jobs lost through energy transition**

Jobs lost through energy transition are captured in the City of Edinburg's unemployment rates. While the national unemployment rate for 2021 was 5.36%, Edinburg's was 6.4% and Edinburg's MSA was 9.3%, both well above the national and state of Texas (5.7%) rates. In 2020, COVID-19's ripple effects caused further financial need that was out of the community's hands. While the national unemployment rate for 2020 was 8.09% and Texas' was 7.7%, Edinburg's was close to 9% at 8.6%. The Edinburg MSA's 2020 unemployment rate was 11.7%. Pre-pandemic, Edinburg's 2019 unemployment rate was 4.4%, almost one point above the national rate of 3.6% and Texas' rate of 3.5%. The Edinburg MSA's 2019 unemployment rate was even higher at 6.3% (U.S. Bureau of Labor Statistics).

- **Access to healthcare**

The Edinburg-McAllen-Mission, TX metro area has been identified as the No. 1 "Fattest City in the U.S." for consecutive years, most recently in 2022 by Wallethub's annual rankings. In addition to being the No. 1 city with the highest percentage of obese adults, it is also the top city with the highest percentage of physically inactive adults. It is the No. 4 city with the highest percentage of diabetic adults as well.

These community health concerns exacerbated the negative effects of COVID-19 on the community. The region has been a national COVID-19 hotspot on and off since 2020. FEMA and the Texas Department of Emergency Management opened 6 mass testing sites statewide and selected Edinburg as a regional mass testing site because of Hidalgo County's severe positivity rate in January 2022. The site was operational through February.

Further demonstrating the community's healthcare-related disadvantages, over 10.2% of Edinburg residents are disabled, including 2.7% with a vision difficulty and 5.3% with an ambulatory difficulty (2018 US Census American Community Survey 5-Year Estimates).

- **If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.**

As per the E.O. 13985's "equity" definition that names persons of color including Latinos, the City of Edinburg's population is comprised of the following: 87.7% Hispanic, 7.8% White, 2.2% African American, 1.9% Asian, 0.2% American Indian; and 0.1% native Hawaiian and other Pacific Islander (U.S. Census Bureau). Additionally, the City proposed WATER Project is located within Census Tract 236.01, an Area of Persistent Poverty. This means that the area has a poverty rate of at least 20 percent as measured by the 2014–2018 5-year data series available from the American Community Survey of the Bureau of the Census. The project area is a low- to moderate-income residential area meaning that this project will principally benefit households that earn equal to or less than 80 percent of the area's median income.

Edinburg is a historically impoverished community with limited resources. More than one in five Edinburg citizens lives in poverty. Edinburg's poverty rate is 22.6 percent, almost 10 points

above Texas' 13.4 percent, and almost double the national poverty rate of 11.4 percent (U.S. Census Bureau).

Water Accountability Through Efficient Response (WATER) Project

Date: April 21, 2022

Category A Applicant: City of Edinburg

Applicant City/State: Edinburg, TX

Applicant County: Hidalgo County

H.1. Environmental and Cultural Resource Considerations

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants should consider the following list of questions focusing on the NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to:

- **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 project will take place in a residential neighborhood and will have minimal disturbance on the environment surrounding the area. The installation will consist of removing previously installed outdated meters and replacing the equipment with new smart meters. The proposed project will benefit the surrounding environment by minimizing water loss and conducting water conservation practices. The City does not foresee any major earth-disturbing work however, if it is deemed necessary at any point during the project, the City will adhere to any necessary steps to ensure the environmental impacts are minimized. If determined necessary by Reclamation, the tasks will be completed concurrently during the following steps: review and execution of grant award documentation; and the coordination, procurement and arrival of smart water meters.

- **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?**

No, there are no Federal threatened or endangered species that have been identified in the proposed project area. If discovered, the City will adhere with any environmental resource compliance terms and conditions. If determined necessary, the tasks will be completed concurrently during the following steps: review and execution of grant award documentation; and the coordination, procurement and arrival of smart water meters.

- **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.**

No, there are no wetlands or other surface water areas that have been identified in the proposed project area. If discovered, the City will adhere with any environmental resource compliance terms and conditions. If determined necessary, the tasks will be completed concurrently during the following steps: review and execution of grant award documentation; and the coordination, procurement and arrival of smart water meters.

- **When was the water delivery system constructed?**

The City of Edinburg's water delivery system was installed in the 1950's. It delivers approximately 26 million gallons per day.

- **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.**

No, the proposed project consists of replacing outdated meters with new smart meters. There will be no modification of irrigation systems in the proposed project site.

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

The City of Edinburg's proposed WATER Project area does not have any NRHP buildings, structures or features. At this time, the City is unaware of any known archeological sites within the proposed project area but if determined necessary by Reclamation, the City will review and complete all environmental compliance factors in accordance with federal regulations.

- **Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?**

No, the City of Edinburg's proposed WATER Project will benefit low-income and minority populations. The proposed project area is located within Census Tract 236.01, an Area of Persistent Poverty. This means that the area has a poverty rate of at least 20 percent as measured by the 2014–2018 5-year data series available from the American Community Survey of the Bureau of the Census. The project area is a low- to moderate-income residential area meaning that this project will principally benefit households that earn equal to or less than 80 percent of the area's median income.

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

No, there are no tribal lands that have been identified in the proposed project area. If discovered, the City will adhere with any cultural resource compliance terms and conditions.

- **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?**

No, the City does not foresee this happening. If discovered, the City will adhere with any environmental resource compliance terms and conditions. If determined necessary, the tasks will be completed concurrently during the following steps: review and execution of grant award documentation; and the coordination, procurement and arrival of smart water meters.

Project Budget

Project Narrative

Date: April 21, 2022

Category A Applicant: City of Edinburg

Applicant City/State: Edinburg, TX

Applicant County: Hidalgo County

Funding Plan

The City of Edinburg requests \$100,000, with a local match of \$100,000, a total project cost of \$200,000, for the Water Accountability Through Efficient Response (WATER) Project. This project will provide for 500 smart water meters to replace current outdated water meters installed in underserved residential areas.

The City's non-federal share of project costs will be obtained with local funds that will be appropriated through the Utilities Department's upcoming Fiscal Year 2022-2023 Operating Budget. The City committed to providing the \$100,000 in matching funds at the Edinburg City Council meeting on Tuesday, April 19, 2022, via Resolution 2506.

The City does not have any pending funding requests for smart water meters other than through this application for the critically-needed WATER Project.

Budget Proposal

Table 1. Summary of Non-Federal and Federal Funding Sources

Funding Sources	Amount
Non-Federal Entities	
1. City of Edinburg	\$100,000
Non-Federal Subtotal	\$100,000
Requested Reclamation Funding	\$100,000
Total	\$200,000

Table 2. Total Project Cost Table

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$100,000
Costs to be paid by applicant	\$100,000
Value of third-party contributions	N/A
Total Project Cost	\$200,000

Table 3. Budget Proposal

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
Supplies and Materials				
Smart water meter upgrades	\$400	500	Each	\$200,000
Total Direct Costs				\$200,000
Total Estimated Project Costs				\$200,000

Budget Narrative

Materials and Supplies

Costs were estimated using historical data from previous projects and activities. The City’s Utilities Department staff accounted for inflation in the WATER project budget. There will not be any contractual costs, as the Utilities Department staff has the expertise and capacity to install the smart water meters.

The requested smart meters (5/8X3/4 FLOWIQ 2250 AMI meters) feature ultrasonic technology, dual band radio, and are assembled using composite PPS material. Compared to the outdated brass meters that will be replaced, the new smart meters accurately detect water usage with stable accuracy and can detect leaks instantly. The meters offer two-way communication that allows for users to remotely control meter functions and access reports and data. Smart meters are built with an expected life expectancy of 20 years, a 10-year increase from the current outdated models in place. The replacement of outdated meters with smart meters will allow the City of Edinburg Utilities Department to conserve water by monitoring and addressing leaks in a timely manner. The upgraded smart meters will provide immediate leak detection and increase staff response time in order to conserve water.

If awarded, the City will procure meters around May 2024 – February 2024 and replace the outdated meters between March 2024 – November 2024. The addition of these meters will help reduce water loss and improve water resiliency in our communities. The water conserved through the installation of smart meters will improve the lives of citizens as well as benefit the surrounding environment, due to the City’s close proximity to the Rio Grande river.

RESOLUTION NO. 2506

THE STATE OF TEXAS § AUTHORIZING THE INTERIM CITY MANAGER TO SUBMIT A GRANT APPLICATION TO THE U. S. DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION UNDER THE FISCAL YEAR 2022 WATERSMART SMALL-SCALE WATER EFFICIENCY PROJECTS GRANT PROGRAM AND TO EXECUTE GRANT DOCUMENTS RELATING THERETO.

COUNTY OF HIDALGO §

CITY OF EDINBURG §

WHEREAS, the U.S. Department of the Interior, Bureau of Reclamation is soliciting grant applications to leverage projects that conserve, better manage, or otherwise make more efficient use of water supplies; and

WHEREAS, this grant opportunity would provide smart water meters to be installed within the City of Edinburg; and

WHEREAS, the Edinburg City Council finds it is in the best interest of the citizens of Edinburg to apply for the U.S. Department of the Interior, Bureau of Reclamation's Fiscal Year 2022 WaterSMART Small-Scale Water Efficiency Projects Grant, with a 50% local match required; and

WHEREAS, the Edinburg City Council agrees that in the event of loss or misuse of the Fiscal Year 2022 WaterSMART Small-Scale Water Efficiency Projects Grant funds, the City of Edinburg assures that the funds will be returned to the U.S. Department of the Interior, Bureau of Reclamation in full; and

WHEREAS, the City of Edinburg will work with the U.S. Department of the Interior, Bureau of Reclamation to meet established deadlines for entering into a grant or cooperative agreement; and

WHEREAS, the Edinburg City Council designates the Interim City Manager as the grantee's authorized official. The authorized official is given the power to apply for, accept, reject, alter or terminate the grant on behalf of the applicant agency.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EDINBURG, TEXAS THAT:

SECTION 1: INCORPORATION OF RECITALS. The City Council finds that the statements set forth in the Recitals of this Resolution are true and correct and the City Council hereby incorporates such Recitals as part of this Resolution.

SECTION 2: The City Council of the City of Edinburg, Texas, authorizes the Interim City Manager to submit the grant application for the Fiscal Year 2022 WaterSMART Small-

Scale Water Efficiency Projects Grant Program to the U.S. Department of the Interior, Bureau of Reclamation.

SECTION 3: SEVERABILITY. If any section, part or provision of this Resolution is declared unconstitutional or invalid, by a court of competent jurisdiction, then in that event, it is expressly provided and it is the intention of the City Council, in passing this Resolution, that its parts shall be severable, and all other parts of this Resolution shall not be affected thereby, and they shall remain in full force and effect.

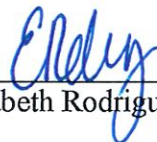
SECTION 4: EFFECTIVE DATE. This Resolution shall be and remain in full force and effect from and after the date of its passage.

READ, CONSIDERED, PASSED and APPROVED at a regular meeting of the City Council of the City of Edinburg, Texas, at which a quorum was present and which was held in accordance with Vernon's Texas Codes Ann., Government Code, Section 551.041, on the 19th day of April, 2022.

CITY OF EDINBURG


By: 
Ramiro Garza Jr., Mayor

ATTEST:

By: 
Elizabeth Rodriguez, Interim City Secretary



APPROVE AS TO FORM:
Omar Ochoa Law Firm P.C.

By: 
Omar Ochoa
City Attorney

CERTIFICATE OF RECORDING OFFICER

I, Elizabeth Rodriguez, Interim City Secretary for the City of Edinburg, hereby certify Resolution No. 2506 is a true and correct copy of the original Governing Body's legislative history for the meeting held April 19, 2022, and is on file in the City Secretary's Office of the City of Edinburg, Texas. TO CERTIFY WHICH WITNESS MY HAND AND SEAL OF OFFICE THIS 19th day of April 2022.

By: 
Elizabeth Rodriguez, Interim City Secretary
City of Edinburg, Texas



Required Permits or Approvals

Date: April 21, 2022

Category A Applicant: City of Edinburg

Applicant City/State: Edinburg, TX

Applicant County: Hidalgo County

The City of Edinburg's Water Accountability Through Efficient Response (WATER) Project will take place in a residential neighborhood and will have minimal disturbance on the environment surrounding the area. The installation will consist of removing previously installed outdated meters and replacing the equipment with new smart meters. The proposed project will benefit the surrounding environment by minimizing water loss and conducting water conservation practices. The proposed smart water meters will not be installed in a federal facility. The City does not foresee any major earth-disturbing work and does not anticipate any required permits or approvals. However, if it is deemed necessary at any point during the project, the City will adhere to any necessary steps to ensure the environmental impacts are minimized. If determined necessary by Reclamation, the tasks will be completed concurrently during the following steps: review and execution of grant award documentation; and the coordination, procurement and arrival of smart water meters.

United States Senate

WASHINGTON, DC 20510-4305

April 25, 2022

Commissioner Camille Calimlim Touton
Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240

Dear Commissioner Touton:

I am writing to express my support for the City of Edinburg's application to the Bureau of Reclamation for the WaterSMART Small Scale Water Efficiency Projects Grant. As you and your staff review the proposal, I trust you will give full consideration to the many strengths of their application.

The City of Edinburg is seeking funding for their Water Accountability Through Efficient Response (WATER) Project. The proposed WATER Project will replace 500 outdated water meters with smart meters. These new smart meters will be able to identify leaks quickly and accelerate reaction time to reduce wasted water and address water outages by digitizing water monitoring systems.

As part of the WATER Project, the requested 500 smart meters will be installed in a low-income residential area. In addition, citizens will benefit by having a digital tracking system to monitor their water usage to alleviate the financial strain caused by outdated meters.

I would appreciate your efforts to ensure that I am kept informed of the progress of this application. Please contact Bryson Albert (Bryson_Albert@cornyn.senate.gov), my Grants Coordinator, with any developments regarding this application soon as they are available.

Thank you for your consideration.

Sincerely,



JOHN CORNYN
United States Senator