



**PROJECT PROPOSAL
THROUGH THE WATER INVESTMENT PROGRAM**

**WATER CONSERVATION PROJECT FOR DONNA
IRRIGATION DISTRICT HIDALGO COUNTY No. 1 IN
TEXAS**

*Submitted to the Funding Committee:
November 6, 2025*

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EXECUTIVE SUMMARY

WATER CONSERVATION PROJECT FOR DONNA IRRIGATION DISTRICT HIDALGO COUNTY NO. 1 IN TEXAS

The Lower Rio Grande Valley in Texas is facing increasingly severe and prolonged droughts, and water scarcity will likely intensify with ongoing economic and demographic growth. These pressures underscore the urgent need for water efficiency measures in the region. In this context, the Donna Irrigation District, Hidalgo County No. 1 (the “District” or the “Sponsor”) has been dealing with water availability issues resulting from high water conveyance losses attributed to seepage, evaporation, overflows and operational inefficiencies in canals built more than 50 years ago.

The District, in addition to supplying water to agricultural accounts for irrigation, also supplies raw water to the water treatment plant owned by the City of Donna (the “Donna WTP”) and to the largest treatment facility operated by the North Alamo Water Supply Corporation (NAWSC), a rural utility that owns and operates various water supply systems. Together, these two plants provide drinking water to about 213,000 residents in eastern Hidalgo County, Willacy County and northwestern Cameron County.

To improve its operational efficiency and resiliency, the Sponsor is undertaking a water conservation project to upgrade and modernize its transmission infrastructure (the “Project”). The main components of the Project include improving the transmission infrastructure for supplying water to the two treatment plants by converting 9,000 feet of open-air canal to pipeline, as well as installing solar-powered battery backup starters at two pump stations and solar-powered flow meters, automated gates and overflow monitoring stations throughout the conveyance network. Altogether, these improvements are expected to save an estimated 2,290 acre-feet (2.82 million cubic meters) of water annually, as well as support better water management and uninterrupted service in the event of power outages.

NADBank participation is essential to bridge financing gaps, enable the inclusion of water resiliency components and ensure full environmental and fiduciary compliance. The combination of a loan and Community Assistance Program (CAP) grant provides affordable long-term financing and will strengthen the institutional capacity of the District, which will result in measurable water savings and improved operational resilience.

Table 1 provides a summary of the eligibility of the proposed Project and key aspects of the proposed financing.

Table 1
PROJECT PROFILE

Project Eligibility

Type (Sector):	Water conservation
Location:	Hidalgo County, Texas, adjacent to the U.S.-Mexico border
Sponsor:	Donna Irrigation District Hidalgo County No. 1

Project Summary

Objective:	Conserve water and improve the reliability of raw water deliveries within the District’s service area by modernizing aging canal infrastructure, improving flow control and ensuring continuous operation of the water delivery system.
Expected Outcomes:	2,290 acre-feet/year of water losses prevented, equivalent to the annual water consumption of approximately 15,700 people.
Population to Benefit:	213,000 habitants. ¹
NADBank Additionality:	NADBank participation is essential to bridge financing gaps, enabling the inclusion of water resiliency components and ensuring full environmental and fiduciary compliance. The combination of a loan and CAP grant provides affordable long-term financing and strengthens the institutional capacity of the Donna Irrigation District, which will result in measurable water savings and improved operational resilience.
Project Cost:	Approximately US\$6.90 million

Financing Summary

Grant Amount:	US\$750,000 from the Community Assistance Program (CAP)
Grant Recipient:	Donna Irrigation District Hidalgo County No. 1
NADBank Loan Amount:	Up to US\$2,850,000
Loan Type:	Public debt issuance in the form of first lien revenue notes, series 2025 (the “Loan” or the “Notes”).
Borrower:	Donna Irrigation District Hidalgo County No. 1

¹ The population was calculated using the number of residents who obtain water for multiple purposes from both the Donna and NAWSC water treatment plants.

**Percentage of Project
Financed by NADBank:²**

- NADBank loan 41.3%
 - NADBank CAP grant 10.9%
-

² The Project is partially funded by a US\$3.30-million grant from the U.S. Bureau of Reclamation.

PROJECT PROPOSAL THROUGH THE WATER INVESTMENT PROGRAM

WATER CONSERVATION PROJECT FOR DONNA IRRIGATION DISTRICT HIDALGO COUNTY NO. 1 IN TEXAS

1. CERTIFICATION CRITERIA

1.1. Technical Criteria

1.1.1. Project Description

Project Location

The proposed Project will be implemented within the service area of Donna Irrigation District, Hidalgo County No. 1, located in central Hidalgo County, Texas, approximately 10 miles east of McAllen and directly adjacent to the U.S.-Mexico border. Figure 1 shows the location of the Project area relative to the U.S.-Mexico border.

**Figure 1
PROJECT LOCATION MAP**



The Project area is situated in the Lower Rio Grande Valley, a binational region characterized by high population density, rapid growth and strong cross-border economic and social

integration with the neighboring state of Tamaulipas, Mexico. Water scarcity in the Rio Grande is a persistent issue, exacerbated by recurring droughts, population growth and competing demands from agriculture, municipalities and international obligations.

The District, which encompasses about 22,935 acres of irrigable land, delivers raw water from the Rio Grande River to municipal and agricultural users through a network of canals, pipelines, pumping plants and an off-channel reservoir with a storage capacity of 1,200 acre-feet. Its role is critical not only to support local economic activity tied to irrigated agriculture, but also for ensuring a reliable water supply for communities with limited alternatives.

Within the District's service area, raw water is conveyed to the Donna WTP, which serves about 16,000 residents, and to NAWSC WTP No. 5, which serves approximately 197,000 residents and is the largest of its six water treatment facilities. Collectively, these systems provide potable water to approximately 213,000 residents in Hidalgo, Willacy and northwestern Cameron counties.

The demographics of the service area reflect significant social vulnerability. In 2020, the city of Donna had a population of 20,021, of which 92.7% was Hispanic; a median household income of US\$29,724, less than half (46%) the statewide median; and a poverty rate of 36.5%.³ Similar conditions are present across the NAWSC service area, which primarily serves rural, low-income communities, including numerous *colonias*.⁴ These disadvantaged populations face heightened risks from water supply interruptions and drought-induced shortages, underscoring the importance of improving water system resiliency.

The Project seeks to strengthen water supply reliability for these low-income, minority and rural communities, reducing their vulnerability to drought and service interruptions. In particular, the installation of solar-powered backup systems at two pump stations will prevent raw water delivery interruptions to the Donna WTP, which has no on-site storage capacity, thereby ensuring continuity in potable water treatment.

Project Scope

The Project consists of water conservation and system resiliency improvements in the raw water conveyance system of the District. Specifically, the Project includes the following components:

- **Canal-to-pipeline conversion**
 - Replacement of 3,800 linear feet of Lateral 22 Canal with 48-inch polyvinyl chloride (PVC) pipeline, eliminating seepage and overflow losses and improving delivery efficiency to NAWSC WTP No. 5.
 - Replacement of 5,200 linear feet of the South Crossover Canal with 60-inch PVC pipeline, eliminating seepage and evaporation losses and improving raw water supply to the Donna WTP.

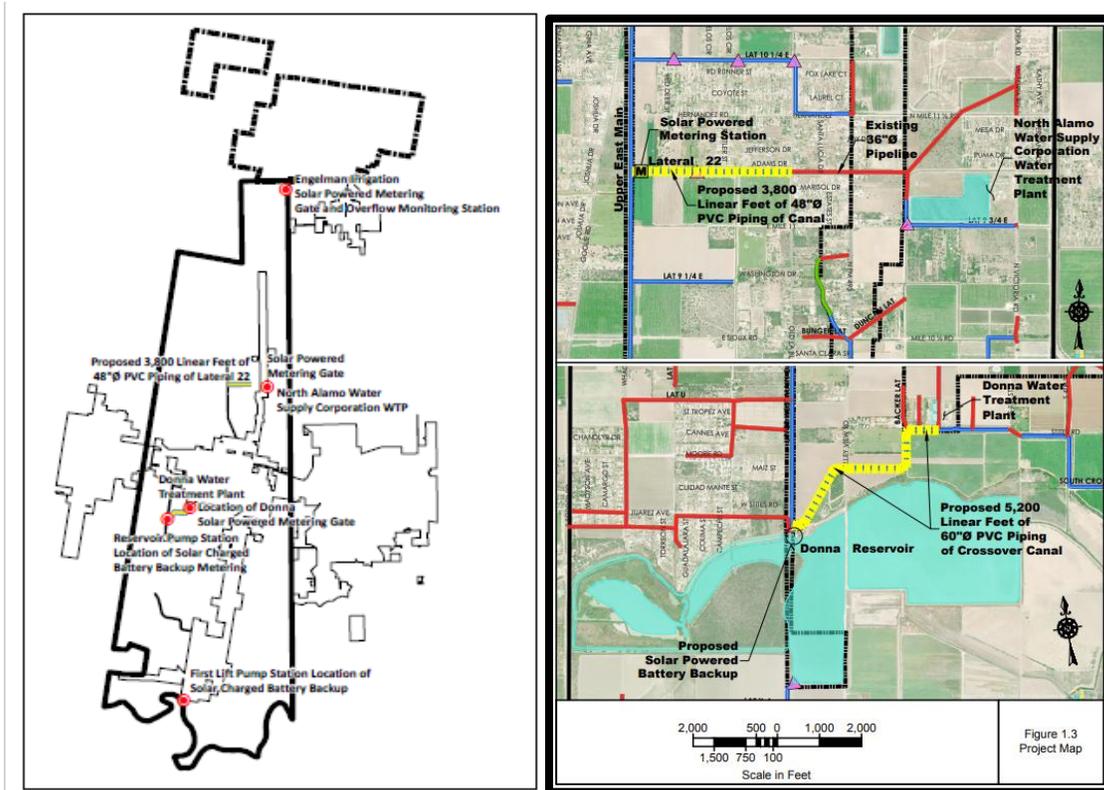
³ Source: U.S. Census Bureau, *American Community Survey, 5-Year Estimates (2020)*.

⁴ A "*colonia*" is generally an economically distressed community characterized by substandard housing, the lack of basic infrastructure, such as water distribution and sewer systems, and informal development patterns.

- Pump station and operational resiliency improvements.
 - Installation of solar-powered battery backup systems at the First Lift Pump Station on the Rio Grande River and the Second Lift Pump Station at the Donna Reservoir, which will strengthen the District’s operational resilience by providing standby electrical power for control panels, ignition systems and auxiliary equipment, allowing the natural-gas-driven pumps to start and operate automatically during power outages, ensuring uninterrupted pumping.
 - Installation of solar-powered flow meters, automated gates and overflow monitoring stations throughout the conveyance system, which will enable real-time flow regulation and data reporting, prevent canals from overflowing and optimize water deliveries.

Altogether, these improvements are designed to conserve approximately 2,290 acre-feet of water annually (equivalent to 2.04 million gallons per day), strengthen system resilience during drought conditions and enhance operational efficiency. Figure 2 shows the location of the scope of work.

**Figure 2
LOCATION OF SCOPE OF WORK**



Project Milestones

The Project has completed all critical environmental authorization requirements. The U.S. Bureau of Reclamation (BOR) determined that the Project met the criteria for a Categorical Exclusion (CATEX) and issued the Notice to Proceed, confirming that the proposed works do not present significant environmental impacts and may proceed without further environmental review.⁵ No additional federal, state, or local environmental permits are anticipated, given that the Project consists of improvements within existing District rights of way and facilities.

Additionally, the District has completed surveying and has already procured the required PVC pipe through a public bid process. This early procurement ensures material availability, reduces risk and moves the Project closer to shovel-ready status.

The remaining activities and their implementation schedule are shown in Table 2.

**Table 2
PROJECT MILESTONES**

Activity	Date
Geotechnical investigation & engineering design	Expected by October 31, 2025
Procurement	Expected by December 15, 2025
Construction startup	Scheduled for January 15, 2026
Construction completion	Expected by July 15, 2027

The Project will be shovel-ready upon financial closing, with critical environmental and procurement milestones already achieved and a clear timeline for completion.

1.1.2. Technical Feasibility

The Project is considered to be technically feasible based on detailed engineering analyses conducted by the District and its consulting engineers, supported by independent review through the BOR grant application process. The proposed works are consistent with industry standards for irrigation districts in Texas and are considered among the best available technologies for water conservation and system resiliency.

In terms of engineering, hydraulic testing with Acoustic Doppler Current Profilers (ADCP), cross-sectional canal surveys and modeling using the Hydrologic Engineering Center's River Analysis System (HEC-RAS) confirmed substantial conveyance losses in both the Lateral 22 Canal and the South Crossover Canal. Additionally, a six-year water audit conducted by the District identified average annual river diversion losses of approximately 1,000 acre-feet. About half of those losses occurred during power outages at the First Lift Pump Station on the Rio Grande. These diversion losses, combined with conveyance losses along the canals, support the engineering analyses for the proposed efficiency improvements, which altogether are expected to conserve about 2,290 acre-feet per year.

⁵ U.S. Bureau of Reclamation, *Categorical Exclusion CEC No. 23-46-TX-WEEG*, July 25 – Aug 1, 2024.

The use of 48”and 60” PVC pipe is consistent with market standards for large-scale conveyance infrastructure. The pipeline will eliminate seepage, evaporation and overflow losses, as well as provide pressure-rated capacity for both agricultural and municipal users. The proposed diameters are appropriately sized for current and projected flows, i, with flexibility for future expansion.

Solar-battery backup system is a proven renewable energy backup system that will power essential priming and compressed air systems at the two pump stations, enabling natural gas-driven pumps to kickstart during outages. This equipment will ensure the reliability of water delivery to the Donna WTP, which does not have raw water storage.

The Project components are consistent with the conservation strategies identified in the 2021 Rio Grande Regional Water Plan. The proposed works represent best available practices for irrigation districts and align with sector trends for pipelines, automation and the integration of renewable energy.

1.1.3. Land Acquisition and Right-of-Way Requirements

The proposed works will be implemented within existing District rights-of-way and easements, including the Lateral 22 Canal, the South Crossover Canal, and the existing First and Second Lift Pump Stations. No additional land acquisition or rights of way are anticipated for the implementation, operation or maintenance of the Project.

1.1.4. Project Operations

The District employs experienced operational staff responsible for system monitoring, canal gate management, pumping operations and preventive maintenance. Its operations are governed by its elected Board of Directors and supported by professional management and technical staff. The District has a demonstrated track record of delivering raw water reliably to both municipal and agricultural customers.

The Project components—PVC pipelines, solar-battery backup systems and automated metering gates—are consistent with technologies already in use by irrigation districts across the Rio Grande Valley. These improvements are expected to reduce operation and maintenance requirements, since piped conveyance requires less routine inspection than open canals, and automated metering minimizes the need for manual gate adjustments and monitoring trips by vehicle. The Sponsor has the capacity to integrate these improvements into its existing operations.

From a financial perspective, the District has secured funding through a BOR WaterSMART grant and has already demonstrated effective management by completing early procurement of PVC pipe. Revenue is derived from water-delivery contracts with municipal users (the City of Donna and NAWSC) and agricultural water users, providing a stable base for ongoing operations and debt repayment.

The Sponsor is expected to comply with all applicable NADBank financing program requirements, including financial and operational reporting, maintaining appropriate insurance coverage and adhering to environmental and social safeguards.

1.2. Environmental Criteria

1.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

The Lower Rio Grande Valley is a growing region in the United States, with strong economic and cultural ties to northern Mexico. The region faces chronic water scarcity, exacerbated by recurring droughts, high evaporation rates and competing demands from agriculture, municipalities and industries. The Rio Grande is the sole source of surface water supply, with allocations governed by the 1944 U.S.-Mexico Water Treaty, which has been under increasing stress in recent years due to reduced inflows and delivery disputes.

Within this context, the District experiences high water conveyance losses, averaging 42% of diversions between 2016 and 2023.⁶ Losses are attributed to seepage, evaporation, overflows and operational inefficiencies in canals built more than 50 years ago. In extreme conditions, the District must resort to “push water” operations, where water is moved exclusively for municipal customers.⁷ In addition to being less efficient, push water further limits agricultural use and raises conflict potential between sectors.

From a public-policy perspective, the 2021 Rio Grande Regional Water Plan identifies canal conversion to piping and automation as priority water management strategies to conserve water and strengthen system efficiency. Similarly, federal programs, such as the BOR WaterSMART grant, have awarded funding for these types of projects, recognizing the urgent need to reduce water losses and improve drought resilience. These policies highlight a consistent framework at the state and federal levels to address water scarcity by modernizing irrigation infrastructure.

In addition to water scarcity, recurrent power outages at pumping stations have led to river losses averaging 500 acre-feet per year, as pumps cannot be restarted without electricity. These events disproportionately affect vulnerable households served by the Donna WTP, which lacks raw water storage and must suspend operations during outages.

The existing conditions in the District service area reflect a combination of aging infrastructure, high system losses and social vulnerability. The proposed Project will address these conditions and is aligned with regional and federal policies that prioritize conservation and modernization.

⁶ Source: Donna Irrigation District, *Engineering Feasibility Report*, RW Harden & Associates, 2023; *Water Conservation Calculations Clarification Response*, 2022.

⁷ Push water refers to the water required to fill channels, pipelines and storage facilities in order to cover transportation losses, including seepage and evaporation, in delivering water to the end user from the source. While necessary in some cases, it can lead to water losses through seepage or evaporation and is considered an operational inefficiency in irrigation systems.

B. Expected Environmental/Human Health Outcomes

The Project is expected to generate environmental and human health benefits related to the following Project outcomes:

- Eliminate water losses of approximately 2,290 acre-feet annually from seepage, evaporation, overflows and operational inefficiencies.
- Ensure a reliable water supply for approximately 213,000 residents.

C. Other Project Benefits

In addition to conserving water, the Project will deliver important social and economic benefits. Improving the reliability of raw water deliveries to the City of Donna and NAWSC will help ensure continuous potable water service for approximately 213,000 residents, many of whom reside in low-income communities, including *colonias*.

The Project will also benefit agriculture by making more water available for farmland, strengthening the local economy where small and medium-sized farms are a significant source of employment. During construction, the Project will create short-term jobs and generate local contracting and supply opportunities.

Overall, the infrastructure improvements will support public health, service reliability for disadvantaged communities and the long-term economic resilience of the region.

D. Transboundary Impacts

No negative transboundary impacts are anticipated due to the implementation of the Project. On the contrary, the proposed project is expected to have positive transboundary impacts on the management of shared water resources in the Rio Grande basin. By reducing losses from seepage, overflows and operational inefficiencies and conserving approximately 2,290 acre-feet of water annually, the Project will strengthen the District's storage balance in the Falcon and Amistad reservoirs, which are binationally managed under the 1944 U.S.-Mexico Water Treaty.

1.2.2. Compliance with Applicable Environmental Laws and Regulations

The Project has complied with all applicable federal, state, and local environmental requirements. Since the Project involves the rehabilitation and modernization of existing irrigation infrastructure within established District rights of way, no major environmental clearance processes are triggered beyond standard regulatory review.

- *Federal Compliance*: As part of the WaterSMART grant award process, BOR reviewed the Project under the National Environmental Policy Act (NEPA). Compliance with the Endangered Species Act (ESA) and National Historic Preservation Act (NHPA) was included in this review, with no adverse impacts identified. BOR issued a Categorical Exclusion and a Notice to Proceed, confirming that the proposed works do not present significant environmental impacts and are authorized to move forward.⁸

⁸ U.S. Bureau of Reclamation, *Categorical Exclusion CEC No. 23-46-TX-WEEG*, July 25 – Aug 1, 2024.

- State Compliance: The Project is consistent with the 2021 Rio Grande Regional Water Plan, which identifies canal piping and automation as recommended water management strategies for the District.
- Local Compliance:
 - The Donna Irrigation District has confirmed that no additional local permits or rights of way are required, since all works will occur within existing District infrastructure corridors.
 - Standard construction permits and best management practices will be applied to ensure compliance with Hidalgo County requirements during construction activities.

The Project is in full compliance with applicable environmental laws and regulations at the federal, state, and local levels and has secured the necessary authorizations to proceed with implementation, as evidenced by the BOR CATEX determination and Notice to Proceed. No environmental permits or authorizations are pending.

A. Environmental Studies or Consultations

As part of the federal funding process under the BOR WaterSMART grant, the Project underwent environmental review in accordance with the NEPA and related federal statutes. The review considered potential impacts on biological, cultural and historic resources.

- Cultural and Historic Resources: BOR evaluated the potential for impacts under the NHPA and determined that the Project scope within established District rights of way would not affect historical or archeological sites.
- Endangered Species and Habitat: Review under ESA concluded that the proposed works would impact no federally listed species or critical habitats, as all construction will take place in previously disturbed areas.
- Environmental Justice Considerations: BOR also considered Executive Order 12898 on Environmental Justice, recognizing that the Project will benefit low-income and minority communities by improving the reliability of potable water service and reducing vulnerability to drought and water outages.

The results of these studies and consultations led to the issuance of the CATEX determination and a Notice to Proceed from BOR, confirming that the project does not require an Environmental Assessment (EA) or an Environmental Impact Statement (EIS).

B. Environmental Clearance and Permitting

The Project has obtained full federal environmental clearance under NEPA. The BOR issued a CATEX under Grant No. R23AP00512, confirming that all work occurs within existing rights of way and will have no significant impact on the environment.⁹ Coordination with the State

⁹ Ibid.

Historic Preservation Office (SHPO) and the U.S. Fish & Wildlife Service (USFWS) verified that no cultural, historic or biological resources will be affected.

No additional environmental authorizations are required.

C. Mitigation Measures

Although the BOR and NADBank internal analysis determined that the Project will have no significant adverse impacts on the environment, the Sponsor is expected to apply mitigation measures to minimize localized or temporary effects during construction and operation. These measures include:

- *Best Management Practices for Construction:*
 - Dust control through the application of water and by covering material stockpiles.
 - Noise control by maintaining equipment in good working order and limiting construction to standard working hours.
 - Proper management and disposal of construction waste in accordance with local and state regulations.
 - Spill prevention and response protocols for fuels, lubricants and other construction materials.
- *Soil and Water Protection:*
 - Erosion and sediment control measures (e.g., silt fences, berms) to prevent runoff into adjacent lands and drains.
 - Proper handling of excavated material to avoid contamination of waterways.

Together, these measures are expected to ensure that Project implementation is carried out in compliance with applicable environmental regulations and to minimize its impact on surrounding communities and ecosystems.

D. Pending Environmental Tasks and Authorizations

No environmental authorizations or tasks are pending.

1.2.3. Environmental and Social (E&S) Due-diligence Results

A. Project E&S Category

Based on the NADBank Environmental, Social and Governance (ESG) Policy for evaluating and classifying potential ESG risks in its financial operations, NADBank determined that the proposed Project and related investments fall within Category C, which is assigned when a project has minimal or negligible exposure to adverse environmental and social impacts.¹⁰

¹⁰ Source: NADBank Environmental, Social and Governance (ESG) Policy, [nadbank esg_policy_eng.pdf](#)

B. E&S Due Diligence Conclusions

NADBank reviewed the organizational structure, operational processes, manuals and policies of the Sponsor and concluded that the District has the tools and resources to comply with the environmental and social obligations related to the Project, including compliance with the applicable regulations and annual compliance reports.

C. Summary of Proposed Mitigation Measures

No additional mitigation measures are needed.

1.3. Financial Criteria

The total cost of the Project, including construction, construction management, contingencies and applicable taxes, is estimated at US\$6.9 million. The District has received a SMARTWATER grant from BOR to cover half of the project cost and requested financing from NADBank to cover the remaining costs. Based on the financial analysis conducted by NADBank, the District has limited financial capacity. Given those limitations and its additional infrastructure needs, the Bank determined that a CAP grant is required to make the Project affordable. Table 3 presents a breakdown of the estimated Project costs and proposed sources of funding.

**Table 3
PROJECT FINANCING PLAN
(US\$ Millions)**

Uses		Amount	%
Construction*		\$ 4,100,000	59.4%
PVC pipe**		2,700,000	39.1%
Financing cost		100,000	1.5%
Total		\$ 6,900,000	100.0%
Sources	Instrument	Amount	%
BOR FY 2023 WaterSMART	Grant	\$ 3,300,000	47.8%
NADBank	Loan	2,850,000	41.3%
NADBank CAP	Grant	750,000	10.9%
Total		\$ 6,900,000	100.0%

* Includes a 4% contingency for construction.

** The District has already purchased the pipe for the Project. Part of the loan proceeds will be used to reimburse 50% of the cost of the pipe to match the 50% reimbursement from BOR.

Subject to approval by the Texas Attorney General (AG), the District will issue revenue notes (the “Notes”), which will be purchased by NADBank(the “Loan”). The approval of the Texas AG ensures that the Notes comply with state law. Texas Water Code Section 49.153 allows the District to issue revenue notes without an election. Revenue notes issued under Texas Water Code Section 49.153 for a term longer than three years are also subject to approval by the Texas Commission on Environmental Quality (TCEQ), with a few exceptions, including those issued to NADBank.

Revenue notes must be paid from the net revenue generated by the system, which is equal to gross revenue less reasonable operation and maintenance costs. The repayment of the Loan will be secured by an irrevocable first lien on and pledge of the net revenue generated by the system.

With respect to the CAP grant, the proposed Project complies with all program criteria. It is located within the U.S.-Mexico border region served by NADBank and is in an environmental sector eligible for CAP financing. Moreover, as a water conservation project, it is considered a priority under the CAP and the Water Infrastructure Program (WIP). As shown in the above table, the investments made by the District through the NADBank Loan, represent about 41% of the project cost, exceeding the 10% minimum contribution required under the CAP guidelines.

2. PUBLIC ACCESS TO INFORMATION

On January 14, 2025, the NADBank Board of Directors approved Resolution 2025-1 establishing the WIP, which provides programmatic certification of projects that meet the eligibility criteria and requirements defined under the program, which was published for public comment. Since this Project complies with the provisions of the WIP, a separate public consultation process was not required.

NADBank conducted a media search to assess public opinion regarding the Project. No opposition to the Project has been identified.