CERTIFICATION AND FINANCING PROPOSAL

LOWER VALLEY WATER DISTRICT
WATER AND WASTEWATER PROJECT
IN EL PASO COUNTY, TEXAS

Submitted: June 28, 2021

BOARD APPROVAL TIMELINE[1]

LOWER VALLEY WATER DISTRICT WATER AND WASTEWATER PROJECT IN EL PASO COUNTY, TEXAS

Milestones	Date
Public comment period begins (30 days)	27/May/21
Public comment period ends	26/Jun/21
Board submittal for initial review	9/Jun/21
Initial Board review ends (21 days)*	No later than: 30/Jun/21
Initial NADB response period (10 days)	No later than: 10/Jul/21
Additional Board review (14 days)*	No later than: 24/Jul/21
Additional NADB response period (7 days)*	No later than: 31/Jul/21
Board voting period (14 days)*	No later than: 14/Aug/21

* Date subject to change if prior deadline is met at an earlier date.

[1] Per the transmittal memo for this project proposal dated June 9, 2021, an extraordinary shortening of the voting deadline has been requested, whereby the Board is being asked to vote no later than June 30, 2021.

CONTENTS

EXECUTIVE SUMMARY

LOWER VALLEY WATER DISTRICT WATER AND WASTEWATER PROJECT IN EL PASO COUNTY, TEXAS

Project: The proposed project consists of expanding and improving the existing water distribution system, replacing and expanding the wastewater collection system and increasing wastewater treatment capacity for unincorporated communities located in the Lower Valley Water District service area in El Paso County, Texas (the "Project"). Water system improvements include installing 45,830 linear feet of new waterlines and 175 new residential connections. Wastewater works include construction of a new package wastewater treatment plant (WWTP) with an estimated capacity of up to 0.14 million gallons per day (mgd) and installation of 26,448 linear feet of sewer lines and 810 new residential connections.[2]

Objective: The purpose of the Project is (i) to provide reliable and sustainable drinking water service by improving the infrastructure for optimal operation of the distribution system and by extending service to unserved areas; and (ii) to increase access to safe and sanitary wastewater collection and treatment services, thereby eliminating exposure to untreated or inadequately wastewater discharges and preventing water pollution. Both components will help reduce human health risks associated with waterborne diseases.

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

- Improve the reliability and sustainability of drinking water services for approximately 3,000 existing residential connections and provide first-time access to 175 homes.
- Provide first-time access to wastewater collection and treatment services for 810 homes.
- Eliminate approximately 0.17 million gallons per day (mgd) of untreated wastewater.[3]

[2] Based on average residential water use per person in the State of Texas of 89 gallons per day (gpd) estimated by the Texas Water Development Board, wastewater flows from the Mesa del Norte, Lourdes Estates and El Conquistador subdivisions are estimated at 0.09 mgd. The final capacity of the wastewater treatment plant will be defined in the final design.

[3] The flows not treated at the proposed Mesa del Norte package WWTP will be treated at other existing facilities that serve LVWD.

Population Benefitted: Approximately 9,000 residents.[4]

Sponsor: Lower Valley Water District (LVWD or the "District").

Borrower LVWD.

Project Cost: US$23,045,000.

NADB Loan: US$23,045,000.

Uses and Sources of Funds:
(US$)

Uses	Amount	%
Construction*	$ 22,871,000	99.2
Financing costs	174,000	0.8
TOTAL	**$ 23,045,000**	**100.0**

Sources	Amount	%
NADB loan	$ 23,045,000	100.0
TOTAL	**$ 23,045,000**	**100.0**

* Includes design, land and rights of way, construction and related contingencies, and supervision for both the water and wastewater components.

Interest Rate: A fixed market-rate in U.S. dollars.

Repayment Period: Up to three hundred twenty (320) months, with a grace period on principal for up to sixty-three (63) months.

Repayment Source: Revenue from an annual ad valorem tax levied against all taxable property in the district sufficient, without limit as to rate or amount, to cover the debt service payments.

Interest Payments: Semiannually.

Principal Payments: Annually.

Debt Service Coverage Ratio (DSCR): The Borrower shall maintain a minimum DSCR of 1.00x.

[4] The new water mains and looping will benefit mainly residents surrounding the communities of Clint and Fabens. An estimated 525 residents will directly benefit from first-time access to water service and 2,430 residents from first-time access to wastewater service.

CERTIFICATION AND FINANCING PROPOSAL

LOWER VALLEY WATER DISTRICT WATER AND WASTEWATER PROJECT IN EL PASO COUNTY, TEXAS

1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES

The proposed project consists of expanding and improving the existing water distribution system, replacing and expanding the wastewater collection system and increasing wastewater treatment capacity for unincorporated communities located in the Lower Valley Water District (LVWD) service area within El Paso County, Texas (the "Project"). The improvements to the water distribution system will increase service reliability and sustainability for approximately 3,000 existing residential connections, as well as provide first-time access to 175 homes. Expansion of the wastewater collection and treatment system includes providing first-time access to 810 homes and construction of a new package wastewater treatment plant (WWTP) with an estimated capacity of up to 0.14 million gallons per day (mgd).[5] As a result, the project is expected to collect and treat approximately 0.17 million gallons per day (mgd) of wastewater, thereby preventing the risk of exposure to untreated wastewater discharges and water pollution.[6]

2. ELIGIBILITY

2.1. Project Type

The Project falls within the eligible categories of water distribution and wastewater collection and treatment.

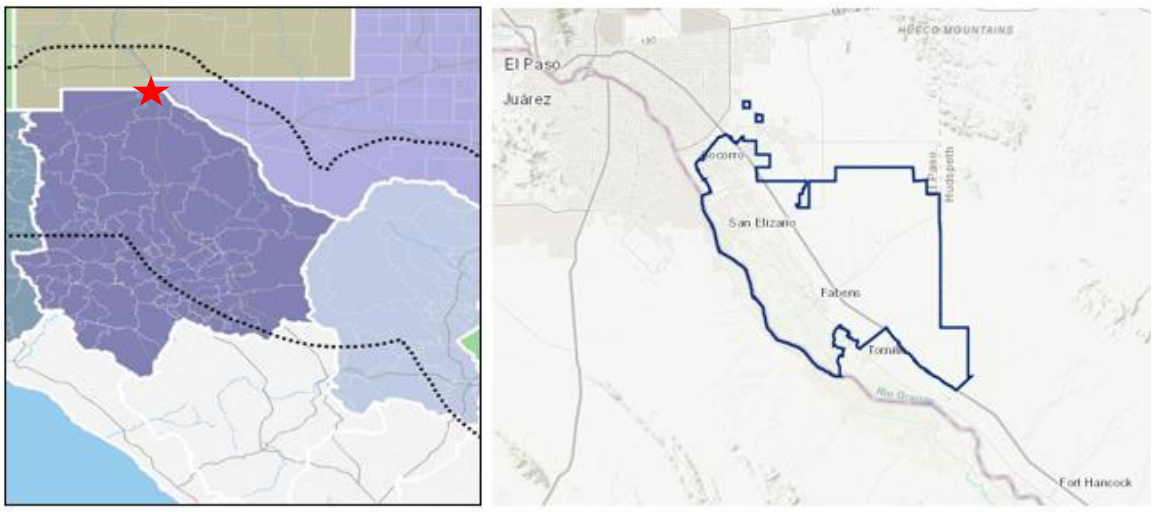
2.2. Project Location

The Project will be implemented in various unincorporated areas within the service area of the Lower Valley Water District (LVWD) in El Paso County, Texas. The district is located east of the city of El Paso and adjacent to the U.S.-Mexico border. As a reference, the geographical coordinates of LVWD offices are approximately 31°35'51.78"N and 106°12'00.04"W. Figure 1 shows the location of the LVWD service area.

[5] Based on average residential water use per person in the State of Texas of 89 gallons per day (gpd) as estimated by the Texas Water Development Board (TWDB), wastewater flows collected from the Mesa del Norte, Lourdes Estates and El Conquistador subdivisions are estimated at 0.09 mgd. The final capacity of the wastewater treatment plant will be defined in the final design.

[6] The flows not treated at the proposed Mesa del Norte WWTP will be treated at other existing facilities that serve LVWD.

Figure 1
PROJECT LOCATION MAP AND LVWD GEOGRAPHIC JURISDICTION



2.3. Project Sponsor and Legal Authority

The public-sector Project sponsor is the Lower Valley Water District (LVWD or the "District"). Its predecessor was the Lower Valley Water District Authority, a conservation and reclamation district established pursuant to Chapter 780 of the state laws of Texas in 1985. On May 23, 1995, the Texas Legislature approved changing the name to Lower Valley Water District. The District operates as a municipal utility district and has legal authority under Chapter 54 and Chapter 49 of the Texas Water Code to provide water, wastewater and solid waste services in an area covering approximately 210 square miles east of the city limits of El Paso. LVWD has legal authority through Certificate of Convenience and Necessity (CCN) P0948 to develop, operate and maintain water and wastewater system infrastructure within its jurisdiction, which includes the cities of Socorro, San Elizario, the town of Clint and several unincorporated areas.

3. CERTIFICATION CRITERIA

3.1. Technical Criteria

3.1.1. General Community Profile

According to U.S. census data, the estimated population of El Paso County was 839,238 in 2019.[7] Most of the population served by LVWD live in the cities of Socorro and San Elizario, as well as unincorporated communities not specifically identified in available census data; nevertheless, it

[7] Source: U.S. Census, QuickFacts website, https://www.census.gov/quickfacts, accessed on May 19,2021.

is estimated that approximately 54,000 people live within the boundaries of the LVWD service area, representing approximately 6.4% of the county population.[8]

According to the U.S. census, approximately 18.8% of the population of El Paso County, compared to about 13.6% of the state population, was living below the poverty level in 2019.[9] At that time, the median household income (MHI) was US$46,821 for the county compared to US$61,874 for the state. [10]

The Project will be implemented at various locations within the LVWD service area. The socioeconomic indicators of the communities within the service area are low when compared to the county and the state averages. For example, the city of Socorro with a population of 34,370 residents has an MHI of US$38,111, while Clint with a population of 1,112 and located near some of the areas benefitted by the Project, has a MHI of US$29,750, indicating that they qualify as economically distressed areas.[11] Both communities will benefit from this Project. The objective of the Project is also aligned with the Texas Environmental Justice Collaborative Plan of the U.S. Environmental Protection Agency (EPA), particularly Focus No. 1 (healthy air, water and land) and No. 4 (urban, rural and unincorporated communities).[12]

The status of water and wastewater systems within the LVWD service area is described in the following table.

Table 1
LVWD WATER AND WASTEWATER SERVICES

Water System	
Coverage	98%
Water supply source	Hueco-Bolson Aquifer and Rio Grande River purchased from El Paso Water (EPW)
Number of residential hookups	17,513
Wastewater Collection	
Coverage	82%
Number of residential connections	14,706
Wastewater Treatment	
Coverage	100% of collected wastewater
Treatment facilities	EPW Roberto Bustamante WWTP Cuadrilla package WWTP

Source: LVWD

[8] Source: LVWD estimate based on its reports to TWDB. Federal and state census data, such as from the American Community Survey, vary significantly from this figure.
[9] Source: Source: U.S. Census, QuickFacts website, https://www.census.gov/quickfacts, accessed on May 19,2021.
[10] Source: EPA Environmental Justice tool (https://www.epa.gov/ejscreen). Low-income population living within the Project area is 62% compared to 35% in the State of Texas and 33% in the US.
[11]Source: Source: U.S. Census, QuickFacts website, https://www.census.gov/quickfacts, accessed on May 19,2021.
[12] Source: EPA, https://www.epa.gov/sites/production/files/2016-12/documents/texas_ej_plan_8-3-16_final.pdf

LVWD Water and Wastewater Systems

The LVWD water system consists of six water tanks, four chlorinator stations, five booster stations and approximately 1,902,536 linear feet of distribution lines that supply water to 19,442 connections. LVWD currently purchases approximately 5.5 million gallons a day (mgd) of water from El Paso Water (EPW). The water is pumped from the northwest side of El Paso to the district located on the southeast side of the county and passes through two master meters. The first meter is located at Gateway East and Loop 375 and the second at the Jonathan Rodgers Water Treatment Facility. The water distribution system has four additional master meters as backup located at North Loop, Middle Drain, Alameda and Socorro Road.

Several locations, particularly in the southern area of the LVWD jurisdiction, have been experiencing low-pressure problems, which affects water distribution. Moreover, residents without access to the distribution system currently have water delivered and stored in private on-site tanks. Typically, the water delivered by the hauling companies is not meant for human consumption, so residents also purchase bottled water for drinking and cooking. There are also significant risks for exposure to waterborne diseases due to improper handling or the use of unsanitized water tanks or storage containers. By expanding water mains with adequate controls identified through modeling, the proposed Project will improve water distribution service, as well extend the system to unserved areas.

The wastewater collection system currently has 16 lift stations and approximately 1,141,744 linear feet of sewer lines serving 16,340 connections. An estimated 9,400 residents or 18% of the District's service area, do not have access to a sewer system and are still using some type of on-site septic system. The on-site systems are in poor condition and frequently experience odor problems, back-ups, and risk contaminating the shallow groundwater common to this area. This proposal will help address these problems by expanding and rehabilitating the wastewater collection system and replacing existing on-site septic systems. The cost of completing household connections to the new wastewater collection infrastructure is included in the construction costs.

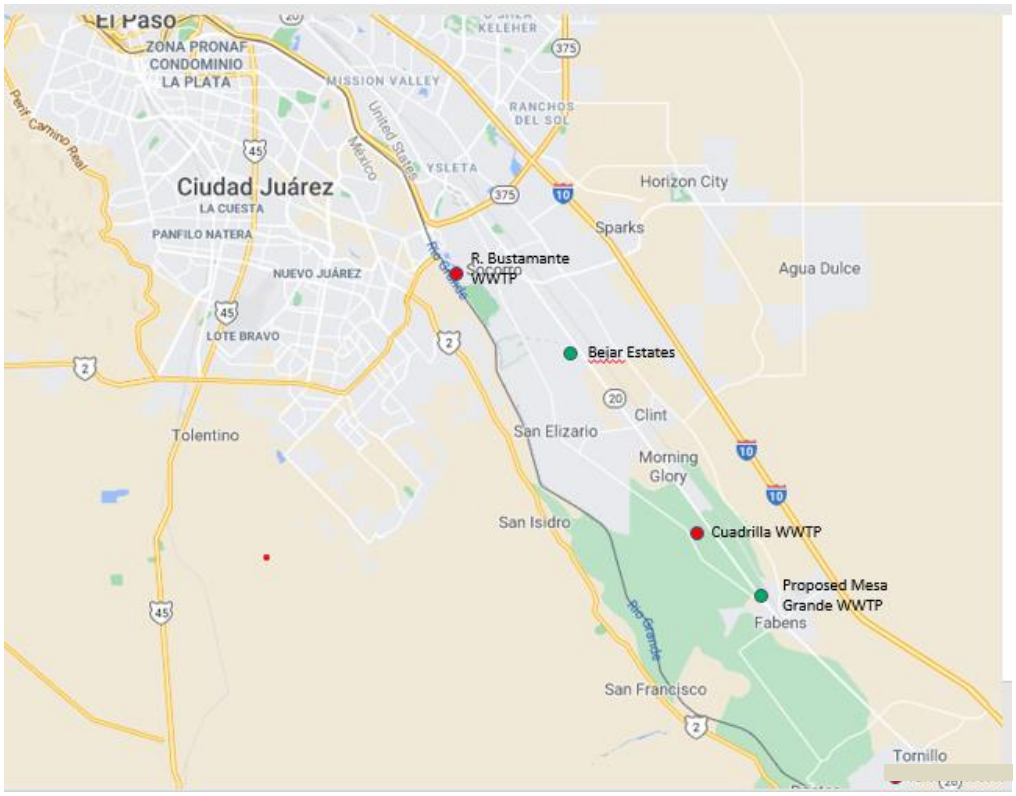
Most of the wastewater collected goes to the Roberto Bustamante Wastewater Treatment Plant (WWTP), which is owned and operated by EPW, has a daily treatment capacity of 39 mgd and is currently treating an average of 29 mgd. The District has an interlocal agreement with EPW that allows the District to convey its wastewater flows, which currently average about 2.3 mgd, to the Roberto Bustamante WWTP. The flows from the Bejar Estates subdivision, a component of this Project with 344 connections, will be treated at this plant. The wastewater flows from the Cuadrilla subdivision, which has 27 connections and generates about 5,000 gallons a day, goes to a decentralized sewer system (package plant) that is in the process of being replaced with a new 10,000-gallons-a-day decentralized treatment plant. The Cuadrilla subdivision currently receives deficient service because of an aged and deteriorated wastewater collection system.

As part of this Project, the District is planning to build a decentralized sewer system (package plant) in Mesa del Norte near the Salitral Arroyo that will serve three residential subdivisions (Mesa del Norte, El Conquistador and Lourdes Estates). The latter two are currently on septic tanks, and Mesa del Norte flows are being treated at the Fabens WWTP. These three areas consist of 439 connections for approximately 1,317 residents or nearly 2.4% of the District's service area.

It is a priority for the District to replace the existing systems to prevent the environmental and human health risks caused by the current operating conditions.

Figure 2 shows in red dots, the location of wastewater treatment facilities in reference to the Project components.

Figure 2
WATER AND WASTEWATER FACILITIES SERVING LVWD



3.1.2. Project Scope

LVWD evaluated and considered various alternatives to address the infrastructure needs in the Project area. The Project and its components are based on the recommendations in a Master Water Plan and a Master Wastewater Plan, both of which were developed by Alan Plummer Associates, Inc., in 2010 and 2013, respectively.

The proposed Project is consistent with the recommendations of these studies and will expand and improve the existing drinking water distribution system, replace and expand the wastewater collection system and increase wastewater treatment capacity.

The Project components are:

- Drinking water distribution system:
  - 15,790 linear feet of 8-inch PVC waterline,
  - 30,040 linear feet of 12-inch PVC waterline,
  - 96 valves,
  - 78 fire hydrants and
  - 175 service connections.

- Wastewater collection system:
  - Installation of 22,123 linear feet of 8-inch new gravity lines,
  - Installation of 1,645 linear feet of 12-inch new gravity lines,
  - Rehabilitation of 2,680 linear feet of 8-inch of gravity lines,
  - Construction of 9,000 linear feet of pressurized force mains with diameters ranging from 4 to 10 inches,
  - 3 lift stations and
  - 810 service connections.

- Construction of a package WWTP: with an estimated capacity to treat up to 0.14 mgd of residential wastewater in compliance with the discharge permit to be issued by the Texas Commission on Environmental Quality (TCEQ) and discharges authorized by El Paso County Water Improvement District # 1 (EPCWID#1).[13]

Project works include design, construction and related contingencies, construction management, dewatering, repaving when required and crossings, as well as land and rights of way acquisition and permitting.

Water system improvements will benefit approximately 3,000 households located mainly in the southern part of the District. These works will also improve sectorization and water pressure, particularly in the distribution system's remotest areas. Wastewater collection rehabilitation and expansion work includes installation of yard-line connections for 810 households to redirect the wastewater disposal from on-site systems to the new infrastructure.

Table 2 and Figure 3 below indicate where the Project components will be implemented.

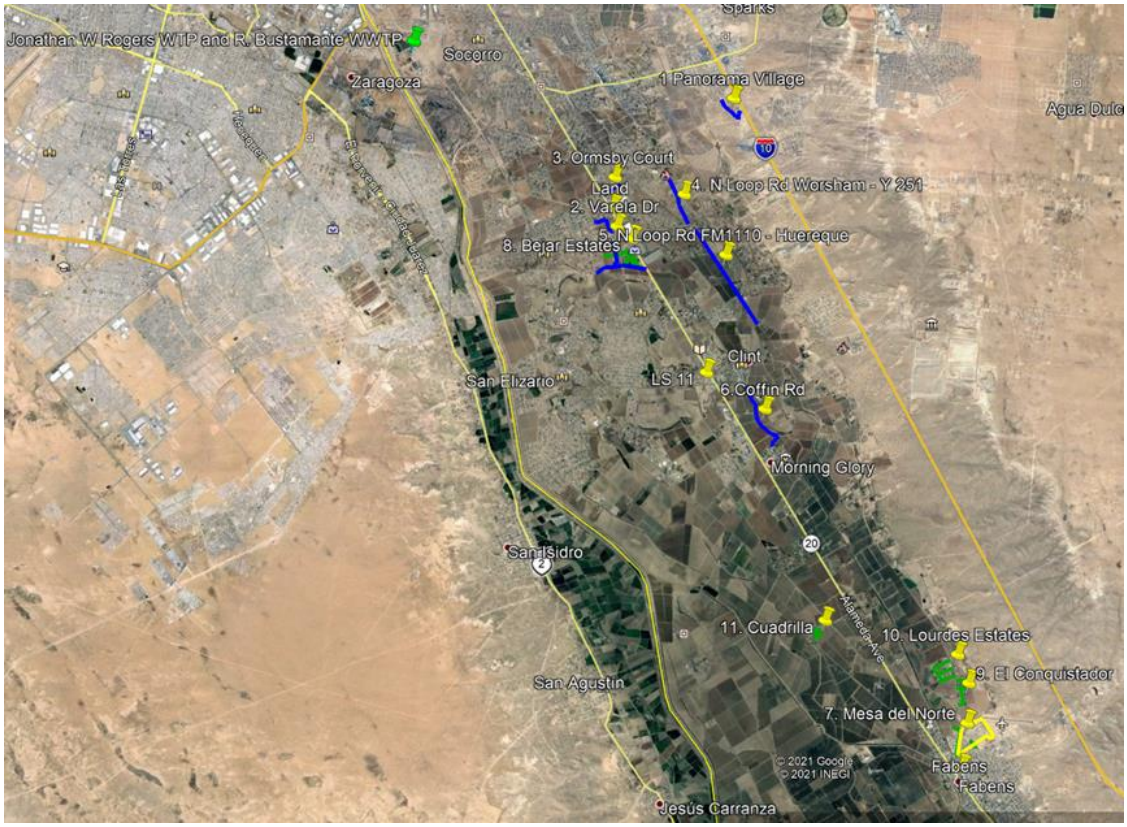
[13] The final capacity of the wastewater treatment plant will be determined in the final design.

Table 2
PROJECT COMPONENTS

	WATER
1	Panorama Village water distribution system
2	Varela Rd water distribution system
3	Ormsby Court from Middle Drain Rd. to Alameda Ave.
4	North Loop Rd. from Worsham Rd. to the Y-251 lateral canal
5	North Loop Rd. from FM1110 to Huereque Dr.
6	Coffin Rd from San Elizario to Connington Rd
	WASTEWATER*
7	Mesa del Norte Subdivision, sewer system and WWTP
8	Bejar States Subdivision,sewer system
9	El Conquistador Subdivision sewer system
10	Lourdes States Subdivision sewer system
11	Cuadrilla Subdivision sewer system

* Mesa del Norte, Lourdes Estates and El Conquistador (439 connections) will be treated at the new package WWTP. Bejar Estates (344 connections) will be treated at Roberto Bustamante WWTP and Cuadrilla (27 connections) at the existing on-site package WWTP.

Figure 3
PROJECT COMPONENTS



The Project cost is US$23.05 million, of which approximately 63% relates to wastewater and 37% to water investments.

3.1.3. Technical Feasibility

Design Criteria

All feasible water improvements alternatives require connection to the existing LVWD water distribution system. The no-action alternative was rejected, since it failed to address the health risks associated with using hauled water stored in individual private tanks, as well as the lack of adequate wastewater collection and treatment services, which poses a risk for ongoing surface and groundwater contamination.

The Project must conform to the standards defined in LVWD's Design Standards since the water system, wastewater collection system and wastewater treatment plant will be operated by LVWD, and design and development process of the Project components are reviewed and approved by LVWD.

The design standards related to the water systems meet or exceed the Rules and Regulations for Public Water Systems established by TCEQ under Chapter 290, subchapter D. Some of the water criteria covered by TCEQ and LVWD include minimum pipe cover, flow velocities, allowable pipe diameters, looping requirements, allowable water pressures and standards for valves, hydrant spacing, and connections. Since the water improvements related to this Project will be connected to the LVWD distribution system, impacts beyond their limits were considered in the hydraulic modeling of the Project.

The design of the wastewater collection system conforms to TCEQ standards as set forth in Chapter 217: Design Criteria for Domestic Wastewater Systems, August 28, 2008, and Chapter 317: Design Criteria for Sewerage Systems, January 6, 2005. The TCEQ sets standards for design, submittals, operations, maintenance, construction and safety. The applicable design standards include sewer sizing, pipe slopes, minimum pipe cover, manhole sizing and spacing, pipe materials, pipe bedding, etc. The TCEQ standards were developed to ensure that the sewage will flow through the system at adequate velocity, as well as to minimize operation and maintenance requirements.

The same design criteria will be followed for the package WWTP, and performance standards for treatment will be set based on the anticipated effluent quality required by TCEQ.[14] LVWD is preparing the design-build procurement package to assure that the performance standards are aligned with the applicable laws and regulations for discharge into an irrigation canal. The discharge permit applications will be submitted once design is complete.

[14] TCEQ typically sets discharge standards during the permitting process, and the standards depend on a variety of factors, such as the quantity and source of the wastewater and the discharge site or use (irrigation vs rivers). For this Project, the plant will likely need to meet a discharge requirement of 20 parts per million (ppm) for both biochemical oxygen demand (BOD) and total suspended solids (TSS).

Selected Technology

For both the water and wastewater components, existing infrastructure was surveyed and incorporated into a model with the input for supply and demand scenarios, in order to simulate current and future operational conditions. In particular, the water system model was calibrated to optimize pressure in the distribution system, taking into consideration its efficient operation. A series of capital investments were recommended to ensure piping and related infrastructure are sized and prioritized to maintain normal operating pressure and fire-flow availability as the population in the service area grows. The wastewater system model was designed to minimize pumping and optimize the use of gravity lines, as well as considered non-sanitary inflows (infiltration, rain) and regulation capacity for the sizing of the proposed infrastructure. The results from this modeling served as the basis to propose the capital investments associated to provide optimal wastewater service under current and future conditions.

The material selected for both water distribution and wastewater collection system infrastructure and residential yard-line connections was PVC, which has proven to be reliable. Valves, fire hydrants, pumps, clean-outs and vents are provided in accordance with standard practice and building code requirements.

With the implementation of the Project, the existing wastewater collection system will be abandoned in place and replaced with a conventional gravity collection system using PVC pipes, which were selected based on proven reliability, as well as familiarity and ease of operation. Final pipe diameters will be selected using appropriate slopes and velocities to prevent pipe silting and clogging, septic conditions, over-excavation or the need for pumping facilities that could increase project costs.

Construction of a new package WWTP is the lowest cost solution. LVWD preferred this alternative because it would provide access to wastewater infrastructure in the unserved subdivisions of Lourdes Estates and El Conquistador and incorporate the Mesa Grande subdivision into the LVWD system. This option requires the construction of three lift stations and approximately 9,000 linear feet of force main.

LVWD has the technical capacity to operate a package WWTP. A design-build procurement process is expected to be used for this component, as this type of facility is usually a standard design provided by the manufacturer based on capacity and performance standards. The design for site work will be minimal, and the design-build approach will allow construction activities related to the wastewater collections system and site work to advance in parallel with the completion of the design and acquisition of the package WWTP from the manufacturer.

LVWD has engaged engineering firms through an open request for qualifications to develop the specific engineering report, which includes probable cost estimates for the design, construction, purchase and acquisition of improvements and additions thereto, and incidental expenses connected with such improvements and the issuance of bonds. These firms will help the District review and update planning documents, finalize the designs and perform construction management.

3.1.4. Land Acquisition and Right-of-way Requirements

All work will be carried out within easements and utility rights-of-way except for the wastewater treatment plant in Mesa del Norte and lift stations, where the land will be purchased. Right of entry forms will be formalized with each homeowner to allow the contractor to have temporary easements for the works to be completed inside the property line when a connection is installed. Works within El Paso County rights of way or cities within the LVWD service area will require traffic control during construction.

El Paso County Water Improvement District No. 1 (EPCWID#1) owns and manages all canals, laterals, and drains for the purpose of irrigating farmland and crops. Whenever a canal, lateral or drain is crossed, a permitting fee of US$1,000 and a right-of-way fee of US$0.10/square foot/year is assessed. Dewatering discharge fees are also assessed at a rate of US$150 per acre-foot for the first 1,000 acre-feet of groundwater discharge and at a rate of US$40 per acre-foot thereafter for groundwater discharge. All these costs have been identified and included in the Project budget.

3.1.5. Project Milestones

On November 5, 2019, the District held a bond election for authorization to issue and sell bonds for the Project in a principal amount not to exceed US$27.50 million. On November 18, 2019, the District approved a resolution declaring the results of the bond election. In effect, the District levied property taxes related to the Project in the current fiscal year, which runs from October 1, 2020 to September 30, 2021, with Project construction expected to initiate during the fiscal year.

Financial closing is targeted for July 2021, and the first interest debt service payment related to the Project will occur in September 2021. Because the District has levied property taxes in the current fiscal year, it is crucial that the District issue and pay debt service related to the Project during the 2021 fiscal year.

From the date of approval and execution of the loan agreement, LVWD will have up to five years to construct the Project. NADB will provide a principal grace period to match the construction period. Each of the subdivision components will take between 6 to 12 months to build.

Four of the eleven components have final designs and are shovel ready. Lourdes Estates and El Conquistador wastewater collection systems are currently being bid and expected to start construction by the end of July 2021. Panorama Village Subdivision water distribution system and Cuadrilla wastewater collection system can be procured to start construction once NADB funding is approved. The District also has selected several engineering firms to provide planning, design and construction management services for the Project. The firms were selected through a request for qualifications (RFQ) process. Additionally, with the support of these external engineering firms, the District is expected to develop in-house designs to expedite the design process of the remaining seven components of the Project.

Project procurement and implementation will start once funding is approved. Procurement and construction management will be consistent with NADB policies. NADB will coordinate all these

activities with the LVWD. Table 3 shows the proposed schedule for Project implementation milestones.

Table 3
PROJECT MILESTONES

Key Milestones	Status
Procurement	Anticipated: 3rd quarter of 2021
Discharge permit	Pending; to be issued prior to operation
Project completion	Up to five years from bond issuance

The bond proceeds will be deposited into the Project Fund and drawn down to make payments to the contractors and consultants as the work is performed. Disbursements from this fund will be made directly to contractors and consultants designated by the LVWD against invoices, receipts or other written documentation certified by its Project Manager and Construction Supervisor, as applicable in each case, in accordance with NADB policies and with the agreed disbursement scheduled.

3.1.6. Management and Operation

The construction, operations and management of the proposed Project will be the responsibility of LVWD. The District provides both water distribution and wastewater collection services and has established procedures for the operation and maintenance of both systems. Interlocal agreements between LVWD and EPW have been established that allow LVWD to purchase potable water from EPW and to convey collected wastewater flows to EPW for treatment.

LVWD was established in 1985 as a municipal water district and has worked to expand its water and wastewater systems to provide service throughout its jurisdiction. Its operations are managed through a sustainable approach, where the intent of the governing body is to finance or recover the costs, including depreciation, of providing services to the general public on an ongoing basis primarily through user fees. All activities necessary to provide such services are accounted for: administration, operation, maintenance, financing and related debt service, and billing and collection.

The Board of Directors of the District is elected by the public and approves the budget on an annual basis. For the period October 1, 2020 to September 30, 2021, the Board approved an operational budget of US$15.4 million, of which 5% is allocated to repairs and maintenance.

LVWD has 121 full-time employees. To ensure the proper operation of its systems for its customers the District maintains a highly trained operations and engineering staff, including three certified wastewater operators.

LVWD is constantly applying for grant and loan funding from local, state and federal agencies to expand and improve its water and wastewater systems. NADB has a good and long-standing working relationship with LVWD that dates to 1998. To date, NADB has authorized grant financing

for four previous projects of the District. Three of those projects were successfully implemented with grants from the Border Environment Infrastructure Fund (BEIF) for water, wastewater collection and residential hookups, and another is in the process of being implemented with funding from the Community Assistance Program (CAP). In the case of the fifth project proposed for wastewater collection and treatment in the community of Cuadrilla, the District decided to change the approach and scope of the project and implemented it with other funding. Overall, NADB has successfully provided grants to the LVWD for $14,489,625, of which 96.6% has been disbursed and the works completed.

3.2. Environmental Criteria

3.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

Deficient water distribution systems experiencing pressure problems pose a risk for backflow and cross-contamination problems. The risks of contamination associated with transporting water and individual storage tanks are also significant. Typically, hauled water is not tested to determine if it meets any primary drinking water standards and is not considered adequate for human consumption. It is suitable for irrigation, household cleaning and construction. Moreover, residents need to follow several guidelines for proper water storage, such as:

- Storage containers need to be constructed of smooth, non-porous, non-corrosive, non-reactive materials that are resistant to chlorine and large enough to clean thoroughly.
- A regular cleaning schedule must be followed, and a chlorine residual must be maintained.
- Hoses need to be properly stored and kept at least one foot above the ground to prevent contamination and containers must be reserved for water storage only.

The conditions of private storage tanks are unknown and not monitored, but it is unlikely that all on-site systems meet ideal conditions. Most residents are aware of the storage issues and that the hauled water is not potable. Many of them also purchase bottled water for drinking and cooking.

Residents in the subdivisions without access to a sewer system, use substandard on-site septic systems as their only means to manage wastewater. The on-site systems are in poor condition, prone to cause back-ups and odor problems, and pose a risk for contaminating the shallow groundwater common to the area.

Waterborne diseases are caused by pathogenic microorganisms that are transmitted because of inadequate wastewater disposal practices and unsafe water supplies. An individual may become ill after drinking water that has been contaminated with these organisms; eating uncooked foods that have been in contact with contaminated water; or through poor hygiene habits that contribute to the dissemination of diseases by direct or indirect human contact with

contaminated water or untreated wastewater. Table 4 shows waterborne statistics for El Paso County, Texas.

Table 4
WATERBORNE DISEASE STATISTICS FOR EL PASO COUNTY, TEXAS

Disease	Number of Cases/Year				
	2012	2013	2014	2015	2016
Intestinal amoebiasis	1	4	1	4	3
Campylobacteriosis	45	51	58	71	63
Cryptosporidiosis	2	1	3	2	3
Shigellosis	60	31	23	24	39

Source: Texas Health and Human Services Automated Epidemiological Surveillance System, accessed May 9, 2019 (https://www.dshs.texas.gov/idcu/default.shtm).

B. Project Impacts

The Project will help protect the health of residents and the local aquifer by collecting the wastewater generated in these subdivisions for proper treatment. The wastewater pertaining to the Bejar Estates subdivision will be conveyed to the Roberto Bustamante WWTP for treatment, a facility with a solid record of meeting all regulatory requirements, while wastewater generated by Mesa del Norte, Lourdes Estates and El Conquistador subdivisions will be conveyed and treated at the decentralized package wastewater treatment plant that is part of this Project.

Water system improvements will also help protect the health of residents by improving system sectorization and water pressure, thus preventing the risk of backflows and cross-contamination in the distribution lines. Additionally, the system will be extended to provide first-time service to unserved areas, eliminating the health risks associated with hauled water.

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

- Improve the reliability and sustainability of drinking water service for approximately 3,000 existing residential connections and provide first-time access for 175 homes.
- Provide first-time access to wastewater collection and treatment services for 810 homes.
- Eliminate approximately 0.17 mgd of untreated wastewater.

The Project will also help improve water resource management and conservation by protecting surface and groundwater from inadequately treated sewage discharges, by correcting the existing non-compliant conditions of the on-site wastewater disposal systems regulated by Title 30, chapter 285 of the Texas Administrative Code. The new wastewater treatment facilities will also be fully compliant with discharge permit requirements. The new wastewater collection system will be designed for energy efficiency to minimize the need for external energy inputs for conveyance of flows to the WWTPs, in accordance with similar performance standards applicable to the selected package WWTP.

C. Transboundary Impacts

No direct impacts from the Project are likely to be detected in Mexico; however, the Project will cause a slight increase in demand on EPW's water supply, which is drawn from the binational water sources used by El Paso, Texas, and Ciudad Juarez, Chihuahua. The primary shared water sources are the Hueco and Mesilla Bolson aquifers and the Rio Grande River. Given the small size of the Project, along with EPW's strategies for diversifying its water sources and its conservation programs, the transboundary impact of the Project is expected to be negligible.

On the other hand, due to the proximity of these communities to the cities of El Paso and Ciudad Juarez, Mexico, and the frequent border crossings between those cities, the proposed Project will have a positive impact on the health of residents in communities surrounding El Paso and Ciudad Juarez, and the entire region, since it will help reduce the risk or waterborne diseases caused by exposure to surface ponding of untreated or inadequately treated discharges or potential contamination of the local drinking water or irrigation wells. Additionally, the implementation of the proposed Project will reduce the potential for contamination of local and shared water bodies, such as the Rio Grande/Rio Bravo River.

No other transboundary impacts are anticipated for the Project.

3.2.2. Compliance with Applicable Environmental Laws and Regulations

TCEQ is responsible for monitoring drinking water systems and issuing enforcement actions in those cases where systems are not in compliance. TCEQ monitors and inspects all point discharges to verify compliance with requirements set by utility permit requirements.[15]

A. Environmental Clearance

Due to the nature of the proposed water and wastewater components of the Project, and since no federal funding is involved, the Project is not subject to the National Environmental Policy Act (NEPA) environmental clearance process (42 USC §§4321-4370f).

All proposed water and wastewater pipelines will be installed in urban roadways within the LVWD, in areas that have been previously impacted and that are not part of protected natural areas or regions considered a priority due to biodiversity. As a result, no significant environmental impacts associated with the construction, operation and maintenance of the Project are anticipated.

However, the proposed Mesa del Norte decentralized WWTP requires a discharge permit from TCEQ. The District will initiate the permitting process once the land is acquired, which is expected to happen in no more than 60 days for a lot that will be discharging to the Salitral arroyo. As part of its disbursement process and in compliance with its policies, NADB will ensure that a condition precedent prior to disbursement is included in the loan agreement that will allow NADB to verify

[15] Source: TCEQ, https://www.tceq.texas.gov/permitting/wastewater.

that the land and permits for any Project component, as applicable, are in good order and obtained prior to authorizing disbursements for construction from the Project Fund.

B. Mitigation Measures

Although Project implementation will have no significant adverse impact on the environment, mitigation measures have been established to address temporary and minor adverse impacts during the construction and operation of the Project. Typical mitigation measures to be implemented include:

- Application of water to reduce the emission of dust particles and soil erosion.
- Construction will normally occur between 8 a.m. and 5 p.m. to avoid extended disturbances from noise.
- Vehicle tune-ups to reduce emissions and noise.
- Placement of warning signs to prevent potentially hazardous situations.
- Appropriate measures will be taken to prevent any surface flow from entering any open excavation at any time, including flows from any defined watercourse or overland flow during or following a rainfall event or storm.
- All spillage and debris will be removed from the site and disposed of at an appropriate waste management facility in accordance with applicable regulations.

By following these best management practices, the temporary impacts due to construction will be minimized. Moreover, the long-term results from implementation of the proposed Project will be positive overall.

C. Pending Environmental Tasks and Authorizations

There are no environmental authorizations pending. As mentioned previously, the WWTP discharge permit will be obtained before operation of this part of the project.

3.3 Financial Criteria

3.3.1 Sources and Uses of Funds

The total cost of the Project is estimated at US$23.05 million for construction and other related costs. The District has requested a NADB loan to finance US$23.05 million. Table 5 presents a breakdown of the estimated Project costs and proposed sources of funding.

Table 5
SOURCES AND USES OF FUNDS
(US$)

Uses	Amount	%
Construction*	$22,871,000	99.2
Financing costs	174,000	0.8
TOTAL	**$ 23,045,000**	**100.0**
Sources	**Amount**	**%**
NADB Loan	$ 23,045,000	100.0
TOTAL	**$ 23,045,000**	**100.0**

* Includes design, land and rights of way, construction and related contingencies, and supervision for both the water and wastewater components.

3.3.2 Loan Payment Mechanism

The loan payment mechanism is consistent with the well-established municipal bond market in the United States. The loan will be in the form of an unlimited tax bonds, series 2021A debt instrument (the "Loan" or the "Bonds"). The source of payment for the Loan will be the revenue from an annual ad valorem tax levied against all taxable property in the district sufficient, without limit as to rate or amount, to cover debt service requirements.

The Sponsor will establish a special fund or account to be designated the "Lower Valley Water District, Unlimited Tax Bonds, Series 2021A, Interest and Sinking Fund" (the "Interest and Sinking (I&S) Fund") to be maintained at an official depository bank separate and apart from all other funds and accounts of the District.

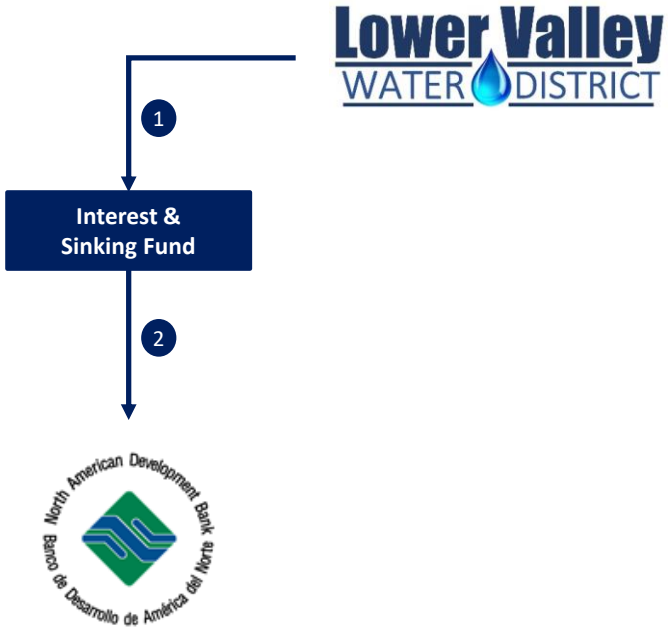
The proceeds from all taxes levied, assessed and collected shall be deposited into the Interest and Sinking Fund. The ad valorem tax collection and all amounts on deposit in or required to be deposited in the Interest and Sinking Fund will be pledged irrevocably to the payment of the principal and interest on the Loan in accordance with the repayment schedule agreed by the Sponsor and NADB.

NADB will receive payments on the Loan through a paying agent contracted by the District during the execution of the bonds. Figure 4 illustrates the loan payment mechanism.

1. The Tax Assessor/Collector will deposit levied property taxes into the Interest and Sinking Fund.

2. Through a paying agent contracted, the District will pay semi-annual interest and annual principal debt service payments to NADB.

Figure 4
LOAN PAYMENT MECHANISM



3.3.3. Financial Analysis of the Source of Payment

The purpose of this section is to perform a thorough analysis of the District and the sufficiency of its principal source of payment for the Loan. The analysis considers the District's existing obligations, as well as the new projected obligations to be contracted for the construction of the Project.

A. Texas Property Tax System

In Texas, property taxes are locally based and administered. Local governments set tax rates and collect property taxes to finance infrastructure projects and services, including schools, roadways, parks, and other services. The State of Texas does not have a state property tax.

State law has established a process to be followed by local governments for the implementation of property value assessments, implementation of tax rates, and collection of taxes. This institutional framework for the Texas property tax system has been considered very strong when compared to the nation by Moody's Investors Service.[16]

The pledge to levy ad valorem property taxes to repay bondholders has proven its durability over many decades. As the bedrock of local government finance, revenue from ad valorem taxes is considered stable, as unpredictable revenue fluctuations tend to be minor. Historically, property taxes are more stable through economic cycles than other government revenue, such as sales tax

[16] Source: Moody's Investor Service, *US Local Government General Obligation Debt Municipal Bond Defaults and Recoveries 1970-2019*, July 15, 2020.

and income tax. Even during depressed real estate cycles, property tax revenue has proven to remain stable, primarily due to the way local governments operate under a balanced budget and set property tax rates based on budgetary needs. If property values decline, the District will still have the legal ability to increase the tax rate to achieve an unchanged or increased levy. Furthermore, changes in the market value of taxable properties usually translate to the property tax bill in a one-year lag, helping smooth out economic cycles.

The institutional framework of the local government general obligation pledge has proven to be strong due to stable property tax revenue and predictable and level debt service obligations using amortizing debt structures, which mitigates interest rate risk and the spikes in debt service obligations prevalent in other sectors. Moreover, local governments are perpetual entities that typically have a monopoly on providing essential services like water and waste disposal.

Default on general obligation debt is rare. Only ten defaults on general obligation bonds from a city, county or a special district have occurred since 1970, and the average ultimate recovery rate is 75%.[17] Additionally, the District currently has a AA- rating by Standard & Poor's for an existing general obligation bond issued in 2005.

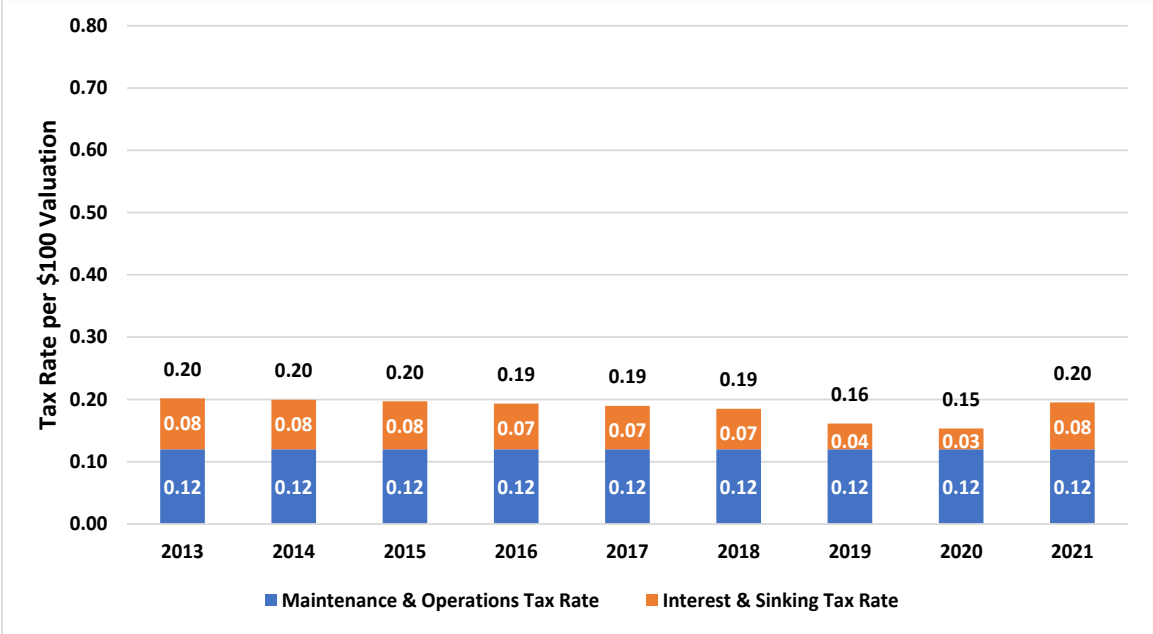
Tax Rate Limitation

As stated in section 3.3.2, the loan will be in the form of unlimited tax bonds, and the District will levy and pledge, and cause to be assessed and collected, annual ad valorem taxes on all taxable property in the District sufficient, without limit as to rate or amount to pay the debt service payments of the Bonds.

On November 5, 2019, the District held a bond election for authorization to issue and sell bonds for the Project in a principal amount not to exceed US$27.50 million. On November 18, 2019, the District approved a resolution declaring the results of the bond election. The election estimated the Bonds will increase the Interest and Sinking Tax Rate ("I&S Tax Rate") to US$0.08 per US$100 of taxable assessed valuation. In effect, the District levied property taxes related to the Project in the current fiscal year, which runs from October 1, 2020 to September 30, 2021, with Project construction expected to initiate during the fiscal year. Figure 5 below demonstrates the historical distribution of the property tax rates for the District.

[17] Source: Moody's Investor Service, *US Municipal Bond Defaults and Recoveries 1970-2019*, July 15, 2020, pages 5 & 26).

Figure 5
HISTORICAL DISTRIBUTION OF PROPERTY TAX RATE FOR THE DISTRICT



Tax Base

The ultimate basis for repaying the District's general obligation debt is the strength of the local economy. The size, diversity and strength of the District's tax base drives its ability to generate sufficient property tax revenue. As an ad valorem pledge is the primary source of revenue, the health of the tax base plays a crucial role in the security of the repayment.

Table 6
TAX BASE HISTORY
(US$)

Tax Year	Taxable Assessed Valuation	Gross Debt Outstanding	Debt-to-Taxable Value
2012	$ 1,331,879,674	$ 8,075,000	0.61%
2013	1,380,318,269	7,315,000	0.53%
2014	1,431,464,161	6,525,000	0.46%
2015	1,476,023,459	5,695,000	0.39%
2016	1,533,601,521	4,830,000	0.31%
2017	1,625,822,239	3,940,000	0.24%
2018	1,705,504,390	3,010,000	0.18%
2019	1,924,119,056	2,045,000	0.11%
2020	2,050,237,398	1,330,000	0.06%
2021	2,164,370,827	705,000	0.03%

Table 6 compares the historical evolution of the District's tax base and gross debt outstanding over the last ten years. Over this period , the taxable assessed valuation grew at an average annual rate of 5.5%, while gross debt outstanding decreased at an average annual rate of 23.7%.

As the current estimated population of the district is 53,300, the 2021 taxable value per capita is US$40,607, representing 47.4% of the national median of US$85,725. This significantly lower taxable value demonstrates that the District serves a smaller, economically challenged community. However, it's debt-to-taxable value ratio is considered strong at 0.03% for 2021, compared to the U.S. median for counties of 0.5%.[18] The proposed Loan is expected to increase the ratio to 1.1%.

Figure 6
2020 ASSESSED VALUE BY PROPERTY TYPE

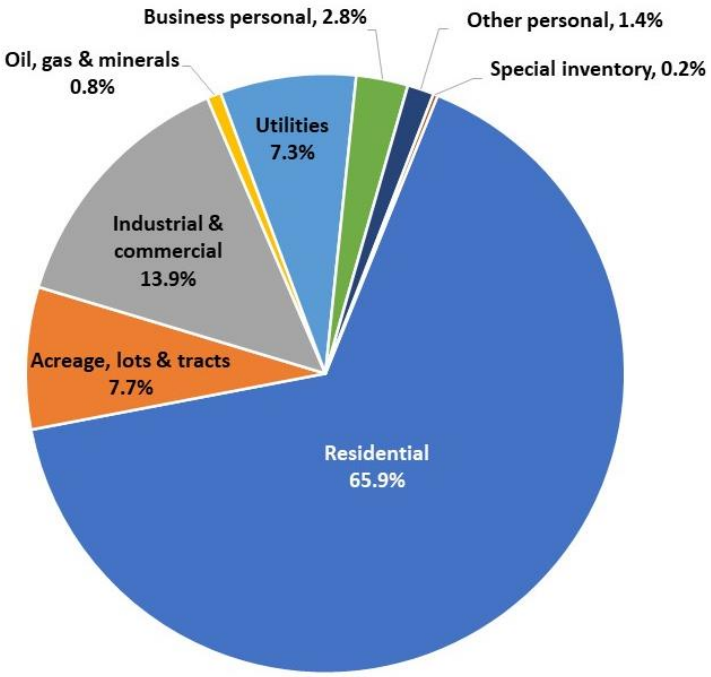


Figure 6 demonstrates that the District's tax base is heavily derived from the residential market and industrial and commercial market, accounting for 65.9% and 13.9%, respectively, of the assessed property value for 2020.

With such a heavy concentration of its tax base in residential properties, a depressed real estate cycle could have a negative impact on the overall tax base. Yet, historically, assessed property values continued to grow during the 2008-2009 financial crisis. Furthermore, in the event of depressed property values, property tax revenue is expected to remain stable, primarily because the District is mandated to operate under a balanced budget and sets the property tax rates based on budgetary needs. If property values decline, the District will still have the legal capacity to

[18] Source: Moody's Investor Service, Local Governments – U.S. Medians, May 19, 2020, page 14.

increase the tax rate to achieve an unchanged or increased levy. Additionally, changes in the market value of taxable properties usually translate to the property tax bill in a one-year lag, helping smooth out economic cycles.

Property Tax Collection History

One of the key credit strengths of the property tax system is the efficacy in which levied taxes are collected. Revenue forecasting is critical, as an overly optimistic revenue budget can lead to a shortfall to cover expenses. Table 7 below demonstrates the District's strong property tax collection history.

Table 7
PROPERTY TAX COLLECTION HISTORY
(US$)

Tax Year	Tax Levy	% Total Collections
2014	$ 2,852,908	98.3%
2015	2,906,290	98.2%
2016	2,964,452	98.5%
2017	3,236,485	95.0%
2018	3,156,803	95.3%
2019	3,101,045	95.3%
2020	3,146,479	95.2%

Historically, the District has maintained strong collections rates, with an average annual rate of 96.6% of the pledged tax levy from 2014 to 2020. The strong collection rates also highlight the healthy budgeting practices implemented, as the District includes a buffer in the tax levy to account for property tax delinquencies. In the event of tax delinquencies, the property owner's tax account incurs an initial penalty based on the amount due and accrues additional penalties each month it remains past due. Additionally, at any time after taxes due become delinquent, the District may file suit to foreclose the property to enforce personal liability for the tax.

B. Historical Analysis of the District

The audited annual financial statements of the District are prepared in accordance with accounting principles generally accepted in the United States of America. For fiscal years 2016-2020, the Utility received an unmodified or "clean" opinion from an independent auditor.

The District's basic financial statements are comprised of three components: 1) The Statement of Net Position (Balance Sheet) which include all of the District's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and obligations to creditors (liabilities); 2) The Statement of Revenue, Expenses and Changes in Net Position shows the business-type activities of the District and provides information regarding income and expense, both operating and non-operating, that affect the Net Position; and 3) The Statement of Cash Flows.

A summary of the audited financial statements from 2016 to 2020 is presented in Table 8 to provide an overview of the District's financial and operational performance.

Table 8
DISTRICT FINANCIAL STATEMENTS
(US$ Millions)

STATEMENT OF NET POSITION	2016	2017	2018	2019	2020
Unrestricted cash and investments	$ 18.28	$ 16.49	$ 15.48	$ 17.21	$ 20.92
Other current assets	4.55	4.15	4.01	4.46	5.33
Restricted cash	9.13	9.32	9.56	9.80	10.43
Capital assets, net	140.99	140.74	141.90	144.46	148.80
Other noncurrent assets	1.19	0.96	1.37	1.04	1.42
Total assets	**$ 174.14**	**$ 171.67**	**$ 172.31**	**$ 176.96**	**$ 186.91**
Current liabilities	$ 4.62	$ 3.82	$ 3.45	$ 5.11	$ 5.96
Payable from restricted assets	0.90	0.91	0.91	1.13	1.22
Long-term debt	19.98	17.86	15.94	14.07	17.34
Non-current liabilities	0.27	0.20	0.50	0.39	0.68
Total liabilities	**25.77**	**22.78**	**20.80**	**20.70**	**25.20**
Invested in capital assets	126.74	120.78	124.04	128.52	129.51
Restricted	1.56	1.67	1.77	1.81	1.66
Unassigned	20.07	26.44	25.71	25.93	30.53
Total net position	**148.37**	**148.89**	**151.51**	**156.26**	**161.71**
Total liabilities & net position	**$ 174.14**	**$ 171.67**	**$ 172.31**	**$ 176.96**	**$ 186.91**

STATEMENTS OF REVENUE, EXPENDITURES AND CHANGES	2016	2017	2018	2019	2020
Metered water sales	$ 6.30	$ 6.40	$ 6.62	$ 7.99	$ 8.42
Wastewater services	5.01	5.16	5.20	6.58	6.85
Solid waste collection services	3.86	4.10	4.29	4.71	5.07
Other fees	1.46	1.29	2.00	1.92	2.48
Total Operating Revenue	**16.63**	**16.96**	**18.11**	**21.21**	**22.83**
Maintenance and operations	12.51	14.60	15.03	15.80	15.43
Net Operating Revenue	**4.12**	**2.35**	**3.08**	**5.41**	**7.39**
Property taxes	2.99	3.15	3.27	3.21	3.29
Depreciation	(4.15)	(4.36)	(4.63)	(4.89)	(5.15)
Interest expense	(0.93)	(0.84)	(0.75)	(0.65)	(0.59)
Capital contributions	3.12	0.07	1.35	1.01	0.34
Other	0.17	0.13	0.31	0.67	0.17
Non-operating income (expenses)	**1.20**	**(1.84)**	**(0.46)**	**(0.66)**	**(1.94)**
Change in net position	**$ 5.32**	**$ 0.52**	**$ 2.62**	**$ 4.75**	**$ 5.45**
Beginning net position	$ 143.05	$ 148.37	$ 148.89	$ 151.51	$ 156.26
Ending net position	**$ 148.37**	**$ 148.89**	**$ 151.51**	**$ 156.26**	**$ 161.71**

STATEMENT OF CASHFLOWS	2016	2017	2018	2019	2020
Cash from operating activities	$ 4.38	$ 2.27	$ 2.89	$ 7.09	$ 7.62
Cash from investment activities	(6.31)	(4.05)	(3.95)	(5.73)	(3.26)
Cash from financing activities	0.05	0.13	12.43	1.33	(10.87)
Net cash flow	**$ (1.88)**	**$ (1.65)**	**$ 11.37**	**$ 2.69**	**$ (6.51)**
Beginning cash balance	$ 17.36	$ 15.49	$ 13.84	$ 25.21	$ 27.90
Ending cash balance	**$ 15.49**	**$ 13.84**	**$ 25.21**	**$ 27.90**	**$ 21.39**

Table 9
FINANCIAL RATIOS

	2016	2017	2018	2019	2020
Current ratio	4.94	5.40	5.66	4.24	4.40
Days unrestricted cash on hand	533	412	376	397	495
Debt service coverage ratio of revenue bonds	1.96	1.16	1.65	4.01	4.29
Debt to assets	14.8%	13.3%	12.1%	11.7%	13.5%
Debt to operating revenue	1.09	0.99	0.87	0.69	0.81
Cash balance as % of revenues	109.9%	97.2%	85.5%	81.1%	91.7%

As shown in Table 8, the District has three primary sources of operational revenue. In 2020, metered water sales, wastewater services and solid waste collection services accounted for 36.9%, 30.0% and 22.2%, respectively of operational revenue.

In addition to its operational revenue, the District levies and collects property taxes from all taxable properties within its jurisdiction. In 2020, the District collected US$3.29 million in property taxes. Since 1987, the District has been authorized to levy annual property taxes at a rate of US$0.12 per US$100 of assessed valuation for administrative expenses of the District. Also, at the end close of 2020, the District had US$0.71 million in outstanding debt secured by and payable from a direct and continuing ad valorem tax levied, without limit as to rate or amount, on all taxable property within the District. The proposed Loan will be secured and payable from ad valorem property taxes.

Multiple indicators demonstrate the strong financial health of the District. Specifically, the District holds a very strong liquidity position. The current ratio, which measures how many times unrestricted short-term assets can cover short-term liabilities, was at a strong position of 4.40x at the end of 2020. The same year, it held US$20.92 million in unrestricted cash and investments, representing 91.7% of its operating revenues. Also, the ratio of days unrestricted cash on hand, which measures how many days the unrestricted cash position can cover operating expenses, was at a healthy position of 495 days. These three ratios indicate a very strong liquidity position, demonstrating the District's capacity to absorb unexpected shortfalls or increases in expenses.

During the period analyzed, the debt-to-assets ratio remained stable at 14.8% and 13.5% in 2016 and 2020, respectively, while capital assets, net of depreciation, grew 5.5% or at an average annual rate of 1.4%. The District's asset condition, which is measured by dividing the annual depreciation by the net capital assets, has a remaining useful life of 29 years, which is higher than the U.S. median of 26 years for combined water and sewer utilities.[19]

The historical financial operating margins also display positive trends. Total operating revenue has grown at an average annual rate of 10.4% since 2016, while maintenance and operation expenses grew at an average annual rate of 1.9%. In 2019, the District implemented provisional monthly fees for water, wastewater, and solid waste services until a rate study can be conducted to increase the rates. Revenue from the provisional rates accounted for 13.4% and 12.7% of total operating revenue in2019 and 2020, respectively. The net revenue of the District was pledged to cover the existing revenue bonds. Its debt service coverage ratio was very strong at 4.29x.

In summary, the historical financial analysis demonstrates prudent financial management and the capacity of the District to undertake the Project.

C. Financial Projections of the District

To determine whether the District can meet its obligations associated with the Project, NADB performed a financial analysis that included adjustments to the I&S Tax Rate in the coming fiscal years. Projections were developed based on historical figures and current efficiency levels, as well as the current economic outlook. The main assumptions include:

- *Basis for projections*: District historical financial statements.
- *Property tax revenue*: Based on the amount to pay debt service requirements (I&S Fund).

[19] Source: Moody's Investor Service, Water and Sewer Utilities – US Medians, May 19, 2020, page 10

- *Current debt*: Based on the District's outstanding debt.

Table 10 shows projected cash flows for the duration of the NADB Loan.

Table 10
PROJECTED CASH FLOW
(US$ Thousands)

Year	I&S Property Tax Revenue	G.O. Debt Service	G.O. DSCR
2022	$ 900	$ 860	1.05x
2023	900	858	1.05x
2024	700	691	1.01x
2025	700	691	1.01x
2026	1,500	1,446	1.04x
2027	1,500	1,444	1.04x
2028	1,500	1,445	1.04x
2029	1,500	1,446	1.04x
2030	1,500	1,447	1.04x
2031	1,500	1,446	1.04x
2032	1,500	1,445	1.04x
2033	1,500	1,448	1.04x
2034	1,500	1,445	1.04x
2035	1,500	1,446	1.04x
2036	1,500	1,447	1.04x
2037	1,500	1,446	1.04x
2038	1,500	1,445	1.04x
2039	1,500	1,448	1.04x
2040	1,500	1,445	1.04x
2041	1,500	1,445	1.04x
2042	1,500	1,445	1.04x
2043	1,500	1,444	1.04x
2044	1,500	1,446	1.04x
2045	1,500	1,448	1.04x
2046	1,500	1,448	1.04x
2047	1,500	1,447	1.04x

I&S Property Tax Revenue = District taxes levied for debt obligations; G.O. Debt Service = General obligation debt service with a pledge of property taxes; G.O. DSCR = Debt service coverage ratio for debt with pledged property taxes.

D. Project Debt Service Coverage Ratio (DSCR)

In accordance with NADB loan policies, the formula for calculating the DCSR for the proposed loan shall be based on the characteristics of the transaction and/or borrower and payment mechanism. For this transaction, the DCSR is defined as the Cash Flow Available for Debt Service (CFADS) divided by G.O. Debt Service. CFADS shall be all Interest and Sinking (I&S) Property Tax Revenues and G.O. Debt Service shall be all debt service with a pledge to property taxes.

Pursuant to NADB loan policies and given the nature of the District's institutional framework for operating on a balanced budget, the debt service payments have been structured to maintain at all times a minimum DSCR of at least 1.00x throughout the term of the Loan in accordance with the following formula:

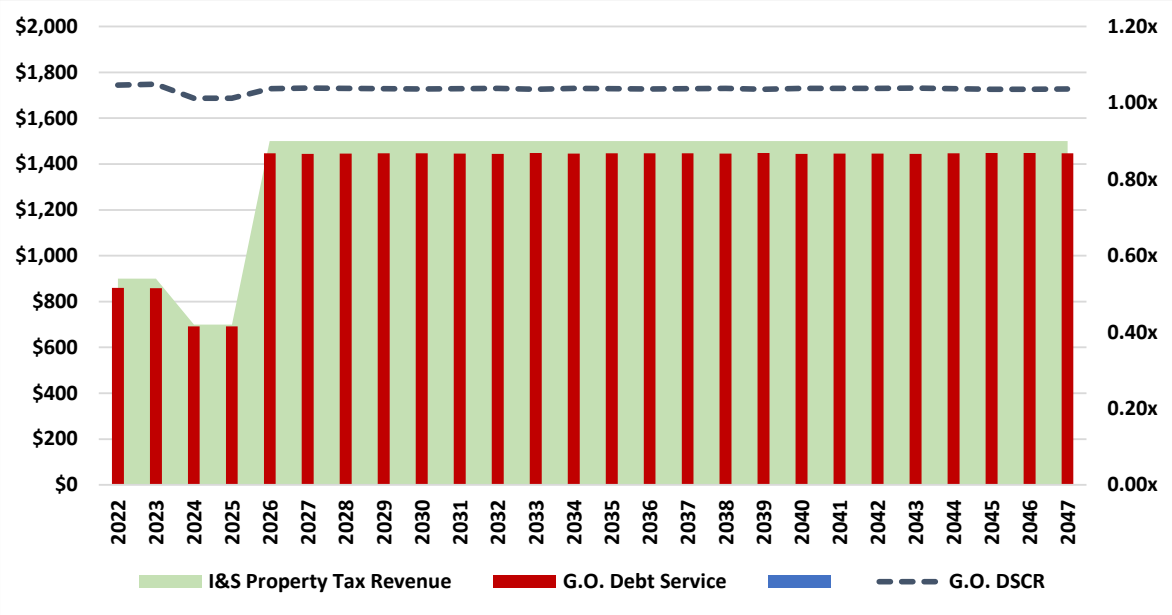
$$G.O.DSCR = \frac{I\&S\ property\ tax\ revenue}{(G.O.principal + G.O.interest)}$$

=

$$DSCR = \frac{CFADS}{G.O.debt\ dervice}$$

Figure 7 illustrates the projected distribution of Project cash flows.

Figure 7
PROJECTED CASH FLOW ANALYSIS
(US$ Thousands)



DSCR = Debt service coverage ratio; G.O. = General obligation; I &S = Interest & Sinking.

The typical debt service coverage ratio for debt with an ad valorem property tax pledge is 1.00x. The District will continue to operate under a balanced budget and set property tax rates based on the budget requirements for following fiscal year. Based on the strong and proven institutional framework, with levied property taxes balanced to the following year's budget, NADB considers the pledged cash flows to be sufficient to cover the financial obligations of the Project.

3.3.4. Risk Analysis

The purpose of this section is to assess the District's ability to address any adverse changes that could impact the repayment of the debt.

A. Quantitative Project Risks

1. *Increase in Operating Expenses*: Since the Loan is being repaid by a pledged ad valorem tax, an increase in operating expenses will not impact its repayment. The District will levy a specific ad valorem property tax for the Project, without limits as to rate or amount, on all taxable property in the District, and the tax revenue collected will be used solely to cover the debt service payments of the Loan.

2. *Decrease in Revenue*: Since the source of payment for the Loan is the revenue deriving from a property tax assessed and levied by the District, a decline in taxable values or in tax collection rates could result in less property tax revenue for debt service. However, the District has the capacity to increase the tax rate without limits as to the rate or amount and has pledged to maintain the rates at a level sufficient to cover debt service on the Loan. Historically, the District has maintained strong collections rates, with an average annual rate at 96.6% from 2014 to 2020. Furthermore, the District had a strong cash position at the end of fiscal year 2020, at US$20.92 million or 91.7% of operating revenue.

3. *Tax-raising Limitation*: The Loan will be secured by the pledge of revenue from an annual property tax with no limitations as to the tax rate or amount. It should be noted that the District's current tax pledge is considered low. Also, the Loan is expected to have a principal grace period of five years, delaying and smoothing out the tax rate increase during its initial years.

B Qualitative Project Risks

1. *Financial/Administrative*: The District has proven prudent financial management through the historical financial analysis.

2. *Economic*: The District's socioeconomic profile is weak. In 2019, approximately 18.8% of the population of El Paso County was living below the poverty level, compared to 13.6% for the state. Also, the median household income was US$46,821 for the county compared to US$61,874 for the state. Nevertheless, since 2010, the assessed value of taxable property has increased at an average annual rate of 5.1%, while the District has maintained strong property tax collection rates.

3. *Political/Legal*: The risk associated with changes in administration or government officials would not result in non-payment of the Loan. The District, by approval of the Bond Resolution, irrevocably authorizes the levy of ad valorem taxes to pay principal and interest on the Loan.

4. PUBLIC ACCESS TO INFORMATION

4.1 Public Consultation

NADB published the draft certification and financing proposal for a 30-day public comment period beginning May 27, 2021. The following Project documents are available upon request:

- LVWD Notice of intent to issue a bond, August 13,2019; and
- Resolution declaring the results of the bond election, November 18, 2019.

The public comment period ended on June 26, 2021, with one comment received in support of the project. The County Commissioner for Precinct No. 3 of El Paso County praised the quality of services provided by LVWD and expressed confidence in its ability to successfully comply with all NADB financing requirements.

4.2 Outreach Activities

On August 13, 2019, the LVWD Board of Directors issued and publicized a Notice of Intent to its residents and electors, calling for a bond election to issue general obligation bonds in the amount of US$27,500,000 for water and wastewater works and levy a tax for its payment.[20]

In a meeting open to the public and held in accordance with Chapter 551 of Texas Government Code, on November 18, 2019, a resolution was voted, passed and approved by the majority of qualified District voters, authorizing the issuance of the bond. All public meeting records are available on the District website (www.lvwd.org).

Additionally, public procurement processes will be carried out in accordance with LVWD practices and NADB procurement policies.

A media search related to the Project was conducted by NADB to identify potential public opinion about the Project. No articles were found related to the development of the Project, and no opposition to the Project has been detected either.

[20] Of this amount, the Sponsor has requested that NADB finance up to US$23,045,000 for the proposed Project and plans to explore other financing options, such as grants or additional debt, for the remaining US$4,455,000.

5. RECOMMENDATION

Certification Criteria Compliance

The Project falls within the eligible sectors of water distribution and wastewater collection and treatment and is located within the border region, as required under the NADB Charter. The 30-day public comment period ended on June 26, 2021, with one comment received in support of the project. The project review performed by the NADB Chief Environmental Officer confirms that the Project complies with all the certification requirements, and there are no pending activities required for compliance.

Funding Criteria Compliance

Considering the Project's characteristics and based on the financial and risk analysis, the proposed Project is financially feasible and presents an acceptable level of risk. Furthermore, the proposed financing meets all the requirements of NADB's loan policies. Therefore, NADB proposes providing a market-rate loan for up to US$23,045,000 to Lower Valley Water District, in accordance with the terms and conditions proposed in Annex B.

Accordingly, based on the foregoing conclusions as supported and presented in detail in this certification and financing proposal, NADB hereby recommends certification of the project and approval of the proposed Loan.