CERTIFICATION PROPOSAL

WASTEWATER COLLECTION SYSTEM IMPROVEMENTS FOR OJINAGA, CHIHUAHUA

Submitted: October 23, 2020

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EXECUTIVE SUMMARY

WASTEWATER COLLECTION SYSTEM IMPROVEMENTS FOR OJINAGA, CHIHUAHUA

Project:	The proposed project will replace 27,688 meters (90,840 feet) of deteriorated wastewater collection lines in downtown Ojinaga, Chihuahua (the "Project").
Project Objective:	The purpose of the Project is to eliminate exposure to untreated or inadequately treated wastewater discharges by replacing deteriorated wastewater infrastructure prone to leaks and failure, thus helping reduce water pollution and the risk of waterborne diseases.
Expected Project Outcomes:	The Project is expected to generate environmental and human health benefits related to the following outcomes: • Improve wastewater collection services for 1,700 existing residential connections located in the downtown area of the city, benefitting approximately 6,240 residents. • Reduce the risk of pipe failure and eliminate discharges of approximately 12.3 liters per second (lps) or 281,000 gallons per day (gpd) of untreated wastewater.[1]
Population to Benefit:	6,240 residents of Ojinaga, Chihuahua.[2]
Project Sponsor:	The local water utility, *Junta Municipal de Agua y Saneamiento de Ojinaga* (JMAS).
Estimated Construction Cost :	US$2,540,500

[1] Source: JCAS, Final design of the Wastewater Collection System Improvements for Ojinaga, Chihuahua by JCAS (2019). Estimate based on a population density of 3.6 persons per household, the generation of 288 liters (63.4 gallons) of wastewater per person per day and a total of 9,994 connections, resulting in 99.9 liters per second (lps) or 2.28 million gallons a day (mgd), less the 87.6 lps (2.0 mgd) currently received and treated at the treatment plant, for total discharges of 12.3 lps (0.28 mgd) from the deteriorated infrastructure.

[2]Source: Population projections were estimated with data from the Mexican statistical institute (INEGI) and population council (CONAPO). The final design considers 3.6 people per household, as indicated in the Annual Report on the Status of Poverty and Unmet Social Needs prepared by the National Council for the Evaluation of Social Development Policy (CONEVAL) (http://www.dof.gob.mx/SEDESOL/Chihuahua_052.pdf).

NADB Grant:

US$1,019,450 grant from the Border Environment Infrastructure Fund (BEIF) funded by the U.S. Environmental Protection Agency (EPA).

Uses and Sources of Funds:
(U.S. dollars)

Uses	Amount	%
Construction*	$ 2,540,500	100.0
TOTAL	$ 2,540,500	**100.0**
Sources	**Amount**	**%**
Mexican federal funds	$ 760,525	30.0
Mexican state and local funds	760,525	30.0
NADB-BEIF (EPA grant)	1,019,450	40.0
TOTAL	**$ 2,540,500**	**100.0**

* Estimated Project costs include 16% value-added tax (VAT), supervision and contingencies.

Project Status:

Key milestones	Status
Environmental clearance – U.S.	Complete
Environmental clearance – Mexico	Complete
Final Design	Complete
Procurement-Mexican funds	Anticipated in 4th quarter of 2020
Procurement-BEIF	Anticipated in 2nd quarter of 2021
Construction period	Estimated period of 24 months

CERTIFICATION PROPOSAL

WASTEWATER COLLECTION SYSTEM IMPROVEMENTS IN OJINAGA, CHIHUAHUA

1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES

The proposed project will replace 27,688 meters (90,840 feet) of deteriorated wastewater collection system pipe in the downtown area of Ojinaga, Chihuahua (the "Project"). The purpose of the Project is to improve wastewater collection infrastructure and services for 1,700 existing residential wastewater connections, which will reduce the risk of pipeline failures and eliminate approximately 12.3 liters per second (l/s) or 281,000 gallons per day (gpd) of untreated or inadequately treated wastewater discharges, thereby helping reduce water pollution and the risk of waterborne diseases.

2. ELIGIBILITY

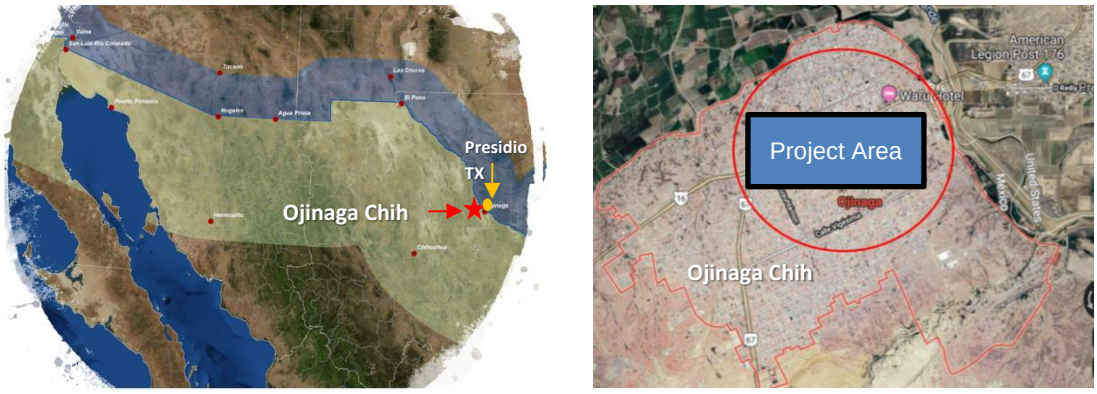
2.1. Project Type and Description

The Project falls within the eligible category of wastewater.

2.2. Project Location

The Project will be implemented in the city of Ojinaga, Chihuahua, which is adjacent to the U.S.-Mexico border. Ojinaga is in the northeast region of the state of Chihuahua, directly across the border from Presidio, Texas and is approximately 254 miles east of El Paso, Texas. Its geographical coordinates are Latitude 29º 34'N and Longitude 104º 24' W, at 2,749 feet above sea level. Figure 1 shows the approximate location of the Project.

Figure 1
PROJECT LOCATION MAP



2.3. Project Sponsor and Legal Authority

The public-sector Project sponsor is the local water utility, *Junta Municipal de Agua y Saneamiento de Ojinaga* (JMAS or "the Sponsor"). JMAS was established on July 23, 1974 by a decree issued by the State Congress of Chihuahua and published in the Official State Gazette on August 21, 1974. In accordance with Article 64, section XLI of the Political Constitution of the State of Chihuahua, JMAS is a decentralized agency of the state utility, *Junta Central de Agua y Saneamiento*, and has legal personality and its own assets for the provision of water, wastewater collection and treatment services to the communities located within the municipality. Pursuant to the provisions of the State of Chihuahua Water Law, the main objective of the JMAS is to provide, conserve and manage, as well as to promote the construction of potable water, wastewater collection and treatment services in the municipality.

3. CERTIFICATION CRITERIA

3.1. Technical Criteria

3.1.1. General Community Profile

The Project is expected to benefit residents in the community of Ojinaga, Chihuahua. According to data in the Annual Report on the Poverty Conditions and Social Needs, issued by the National Council for Evaluation of Social Development Policy (CONEVAL), in 2010, the total population in the municipality of Ojinaga was 26,304.[3] According to CONEVAL, 44.3% of the residents of the municipality of Ojinaga live below the poverty level; in comparison, 26.3% of the state population

[3] Source: Informe Anual sobre la Situación de Pobreza y Rezago Social [Annual Report on the Status of Poverty and Unmet Social Needs]; CONEVAL (2019), accessed on September 26 at: https://www.gob.mx/cms/uploads/attachment/file/34263/Chihuahua_052.pdf

lives below poverty level.[4] The Federal Secretary of the Interior reported in 2015 that the economically active population in Ojinaga was 63.2%.[5] The economy of Ojinaga is based primarily on commerce, agriculture, and livestock farming. Due to its geographic location, Ojinaga has a border crossing into the town of Presidio, Texas, which contributes to the economic opportunities for both communities.

The following table summarizes the status of basic public services and infrastructure in Ojinaga.

Table 1
BASIC PUBLIC SERVICES AND INFRASTRUCTURE IN OJINAGA*

Drinking water	
Coverage:	98%
Water supply source:	Groundwater wells
Number of hookups:	11,836
Wastewater Collection	
Coverage:	85%
Number of residential connections:	9,994
Wastewater Treatment	
Coverage:	100%
Treatment facilities:	Ojinaga WWTP with installed capacity of 140 l/s (3.2 MGD).

* Information provided by JMAS on February 12, 2019.

Local Water and Wastewater System

JMAS operates the water and wastewater systems serving the community of Ojinaga. The water supply for the system is extracted through groundwater wells and provides drinking water service to approximately 98% of the homes, or 11,389 residential connections. The drinking water system provides adequate disinfection and the distributed water meets the quality requirements established in the Mexican Standard NOM-127-SSA-1994.

The local wastewater collection system operates by gravity; however, to provide the necessary hydraulic load for wastewater treatment, the city relies on a lift station to convey the wastewater flows to the treatment facility. The lift station is working properly and will not require improvements during the Project. Wastewater generated and collected is conveyed to the Ojinaga Wastewater Treatment Plant to receive treatment through a system of stabilization lagoons.

JMAS reports that approximately 85% of the homes in the urban area are connected to the wastewater collection system. Those homes not connected to the centralized system are sparsely located south of the city, where extension of service may not be feasible. The existing connections

[4] A person is in a situation of poverty when he has at least one social deprivation and does not have enough income to meet his needs. Source: CONEVAL (2018)
[5] Economic Activity and Occupation in 2015, accessed on 9/23/2015 at:
https://www.gob.mx/cms/uploads/attachment/file/239933/11-cuadro-07.pdf

generate approximately 2.0 MGD (87.6 l/s) of wastewater. The city's wastewater treatment plant has an installed capacity of 3.2 MGD (140 l/s), which is sufficient to treat the current wastewater flows as well as additional flows reaching the plant that may result from the improvements planned with the proposed Project. The treated effluent is discharged to the Rio Grande and a portion of the treated wastewater is reclaimed for agricultural irrigation. The WWTP produces an effluent that complies with the requirements of Official Mexican Standard NOM-001-SEMARNAT-1996. [6]

Currently, a large portion of the collection system has exceeded its useful life and shows signs of deterioration and experiences leaks and overflows at several manholes. This situation is prevalent throughout the downtown area and causes recurring problems that result in leaks and overflow of untreated wastewater, resulting in contamination to surface water and the West Texas Bolson Aquifer, which is a shared water supply source with Presidio, Texas. Both the groundwater and surface water pollution have a potential impact on the Rio Grande, a shared binational water body and drinking water source for U.S. communities downstream of Presidio.

Because of these conditions, coupled with the risk to residents of direct contact with raw sewage resulting from sewer system failures, the Project was selected to receive grant funding from the Project Development Assistance Program (PDAP) and Border Environmental Infrastructure Fund (BEIF), which are both funded by the U.S. Environmental Protection Agency (EPA) and managed by NADB.

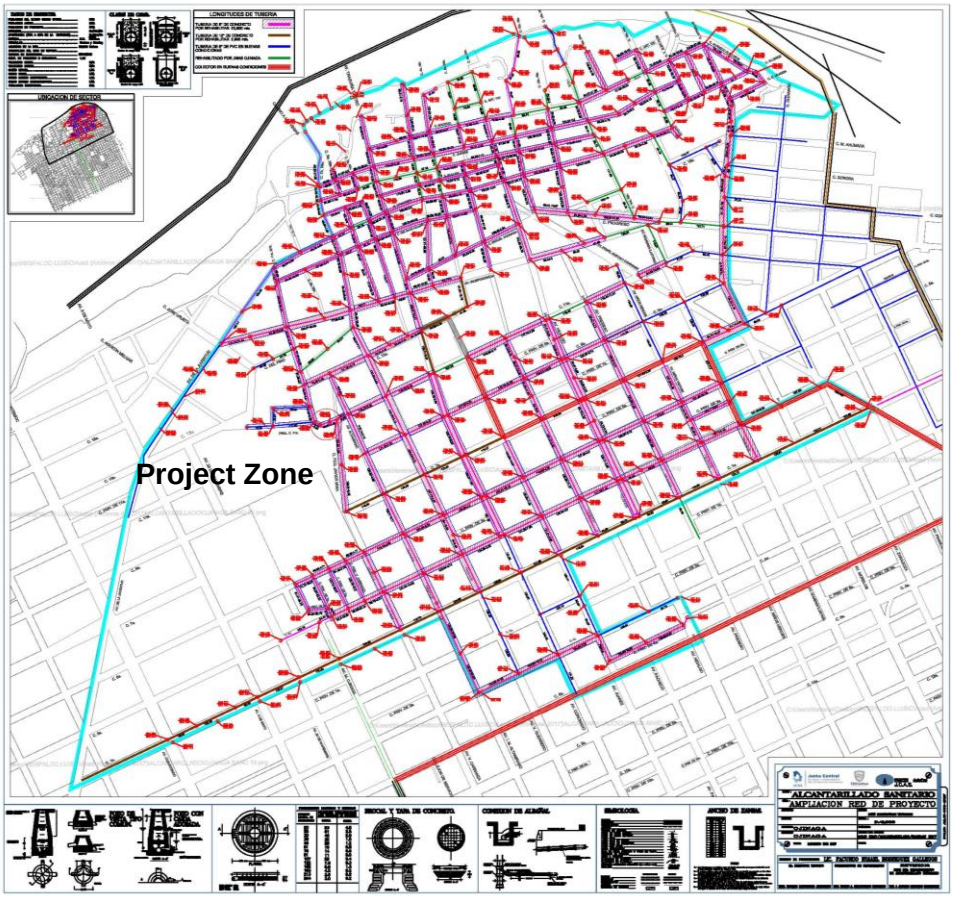
3.1.2. Project Scope

The Project consists of the improvements to the existing wastewater collection infrastructure in the downtown area, including the replacement of approximately 27,688 meters (90,840 feet) of 8-12" PVC pipe, construction of 239 manholes and rehabilitation of service connections to 1,700 residential connections.

Figure 2 provides a schematic layout of the collection system infrastructure to be rehabilitated.

[6] Wastewater collected in the Project area will be treated at the Ojinaga WWTP, which has a current discharge permit (Memorandum BOO.E.22-1051, issued by the Chihuahua State Management Office on October 15, 2002) and sufficient installed capacity to treat the wastewater collected in the project area. Effluent quality reports dated May 18, 2020 show that the WWTP complies with applicable regulations.

Figure 2
WASTEWATER SYSTEM REHABILITATION PROJECT IN OJINAGA



Source: JCAS (2019) Project for Improvements to the Wastewater Collection System in the Central Area of Ojinaga, Chih

BEIF funds will be used for rehabilitation of the wastewater collection system as well as supervision services for all construction activities. Mexican funds will be used for similar works and are expected to be invested just slightly ahead of the BEIF resources. The overall construction of the Project will be segregated into three, similar in size, bidding packages, two of which will be paid for with Mexican funds allocated over two fiscal years and the third package will be supported by BEIF resources.

3.1.3. Technical Feasibility

As part of the development of the Project, planning documents were completed, which included an analysis of alternatives to select the appropriate technology, process, or materials for the Project components. The analysis considered the No Action alternative, two alternatives with different pipes and diameters, and one alternative rehabilitating pipeline using trenchless technology. The alternatives reviewed considered using the current layout of the existing lines and installing connections to the wastewater system at existing connection points.

The no-action alternative was rejected since it fails to address the contamination and health risks created by aging and failing wastewater collection infrastructure.

Once the No Action alternative was eliminated, collection system alternatives were evaluated taking into consideration the following factors:

- Constructability;
- Capital cost;
- Operation and maintenance (O&M) cost;
- Material and equipment reliability;
- Environmental impact;
- Social/community acceptance;
- Topography;
- System reliability;
- Rights of way and easement requirements;
- Pavement removal and replacement; and
- Technology and sustainable practices.

Considering that the Project consists of the rehabilitation of the existing wastewater collection system and the current layout of the lines will be maintained, sewer pipe diameters were calculated using slopes and velocities aimed at preventing silting, septic conditions and over-excavation, ensuring that the wastewater collection system in the Project area remains a gravity-based system. As part of the hydraulic review of the system to be rehabilitated, current and future operating costs were examined. Pipe material options reviewed included HDPE and PVC. PVC was selected as the most suitable material to rehabilitate the wastewater collection lines.

Final designs for the Rehabilitation of the Wastewater Collection System were completed in accordance with the technical specifications established in the Water and Wastewater Manuals developed by CONAGUA and include consideration of green building practices as part of the construction specifications. The final design was developed by the state utility, *Junta Central de Agua y Saneamiento del Estado de Chihuahua (JCAS)* and was reviewed by CONAGUA and NADB. The Local Directorate of CONAGUA in Chihuahua validated the Project´s technical record through Memorandum No. BOO.906.03-076, issued in Chihuahua, Chihuahua, on August 20, 2019. JCAS will assist the local utility to procure and implement the proposed works.

3.1.4. Land Acquisition and Right-of-Way Requirements

All sewer lines and collectors included in the Project scope will be rehabilitated within public easements and rights-of-way. No additional land or rights-of-way need to be acquired for the Project.

3.1.5. Project Milestones

Based on the nature of the Project, where all works were expected to be implemented within existing rights-of-way and for the replacement of existing pipe, a consultation process with the Ministry of Urban Development and Ecology of the State of Chihuahua resulted in a decision, which would not require additional environmental studies or clearance activities. The development of a brief evaluation of alternatives to resolve the deteriorated pipe conditions was considered in the Project's Environmental Information Document (EID), to meet the U.S. environmental clearance process, was completed for the Project in August 2019. EPA issued a Categorical Exclusion on September 17, 2019. Final design was completed by the Project sponsor in August 2019.

Bidding of construction for the first portion of the collection system funded by CONAGUA/JCAS is expected to be begin in the fourth quarter of 2020. The portion of the Project to be implemented with the BEIF grant is expected to be procured in the second quarter of 2021. The construction of the entire project is expected to take approximately 24 months from the first procurement process, with each of the three contracts requiring no more than 12 months to complete the construction activities. Issues that could affect the construction schedule are related to procurement, weather and delivery of construction materials, as well as the timing of the availability of Mexican funding.

Table 2 provides a summary of the Project milestones and their respective status.

Table 2
PROJECT MILESTONES

Key Milestones	Status
Environmental clearance – U.S.	Completed on September 17, 2019
Environmental clearance – Mexico	Completed on February 9, 2017
Final Design	Completed in 2019
Procurement-Mexican funds	Anticipated in 4th quarter of 2020
Procurement-BEIF	Anticipated in 2nd quarter of 2021
Construction period	Estimated period of 24 months

3.1.6. Management and Operation

The management and operation of the proposed Project will be the responsibility of JMAS; however, JCAS will assist the local utility with procurement and contract management for the Project, as an effort to enhance institutional capacity for this activity. JMAS currently serves a total of 11,836 water hookups and 9,994 wastewater connections within the city. The Utility is organized in various departments, including Operation, Maintenance and Management. The utility's manager has worked at the utility under the previous two local administrations, providing consistency to operations and overall performance.

As part of the Project evaluation process for BEIF resources, NADB performed an analysis of the Sponsor's financial statements to determine its general financial health. Over the analyzed period, the Sponsor steadily improved its operating performance with the rate of increase for system revenues exceeding a relatively stable level of expenses. The impact of the proposed Project on the O&M budget and procedures was reviewed and based on the results, the budget appears to be financially viable and should result in decreased expenses related to the continuous maintenance required for the deteriorated infrastructure to be replaced by the Project. To ensure that the proposed Project does not weaken this current position, the Sponsor will be required to fund two reserve accounts, one for operation and maintenance and the other for repair and replacement of the project's components.

The utility has an Operation and Maintenance (O&M) Manual that includes routine tasks, as well as procedures to address unexpected conditions and ensure the proper operation of the system. JMAS' staff has the necessary experience to operate the wastewater collection system and receives training on annual basis. The utility operates in a four-crew structure and owns maintenance equipment, such as backhoe, vacuum truck and a truck mounted with a probing rod for sewer inspections. The utility has access additional equipment for maintenance purposes from JCAS.

JMAS wastewater system includes a WWTP with capacity of 3.2 MGD (140 l/s) and currently treats approximately 2.0 MGD (87.6 l/s). The plant has sufficient capacity to handle all existing and potential flows collected with the implementation of the project. Additionally, JMAS has been successful in maintaining wastewater discharges that comply with Official Mexican Standard NOM-002-SEMARNAT-1996, which regulates the quality of non-residential wastewater that enters the collection system.

3.2. Environmental Criteria

3.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

Wastewater collection coverage in Ojinaga is approximately 85%. Residents of areas that lack wastewater collection and treatment services dispose of their wastewater by using substandard septic tanks, latrines and cesspools that do not comply with applicable regulations; however, the sparse location of these homes does not support a feasible strategy to extend centralized service. Because these homes are located south of the urban area, there are no effects expected to the binational water body due to the current on-site disposal method.

In the city´s downtown area, a large part of the wastewater collection system has exceeded its useful life and shows signs of deterioration throughout the system. The current conditions result in continuous leaks or seepage and, typically, the utility needs to address more significant pipe breaks once a month and, in some areas, must perform weekly maintenance, including treatment of overflow discharges. The poor condition of the existing wastewater collection infrastructure in the Project area could result in significant health and safety hazards for the public.

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. The Project is expected to reduce the health risks associated with exposure to untreated wastewater resulting from damaged/collapsed collection system. Table 3 waterborne disease statistics for Ojinaga, Chihuahua.

Table 3
WATERBORNE DISEASE STATISTICS FOR OJINAGA, CHIHUAHUA

Disease	Number of Cases per Year				
	2015	2016	2017	2018	2019
Intestinal infections by other organisms and the ill-defined	1,906	2,531	2,103	2,131	1,777
Other Salmonellosis	119	–	–	–	–

Source: Local Epidemiologist.

B. Project Impacts

The Project will improve the wastewater collection system and help prevent any contamination to the ground and surface water by replacing pipelines that have reached their useful lives. No wetlands will be impacted by construction, as no construction activities will take place within these established areas.

Wastewater will be collected and conveyed to the WWTP, where it will be treated prior to discharge to reduce the risk of contamination and health hazards. Additionally, the WWTP effluent can be reused for agricultural purposes, which will reduce the demand for water in this sector.

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

- Improve wastewater collection services for 1,700 existing residential connections located in the city´s downtown area, benefitting approximately 6,242 residents.
- Reduce the risk of pipe failure and eliminate discharges of approximately 281,000 gallons per day (gpd) of untreated wastewater.[7]

[7] Source: JCAS, Final design of the Wastewater Collection System Improvements for Ojinaga, Chihuahua by JCAS (2019). Estimate based on a population density of 3.6 persons per household, the generation of 288 liters (63.4 gallons) of wastewater per person per day and a total of 9,994 connections, resulting in 99.9 liters per second (lps) or 2.28 million gallons a day (mgd), less the 87.6 lps (2.0 mgd) currently received and treated at the treatment plant, for total discharges of 12.3 lps (0.28 mgd) from the deteriorated infrastructure.

To enhance the benefits of the Project, the final design included a review of green building practices as part of the technical construction specifications, as defined by the EPA Border Water Infrastructure Program. Given the Project scope, the primary opportunity for incorporating green building methods is related to maintaining low energy demands during the operation of the infrastructure. Sewer pipe diameters were calculated using slopes and velocities aimed at preventing silting, septic conditions, and over-excavation, ensuring that the wastewater collection system in the Project area remains a gravity-based system.

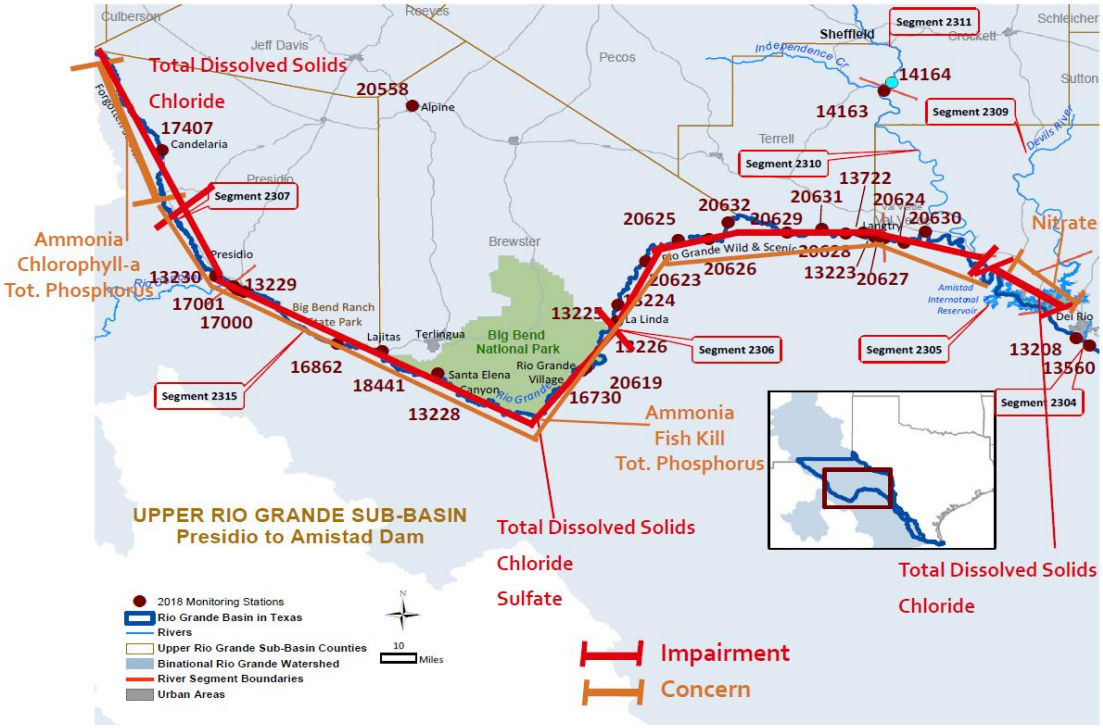
C. Transboundary Impacts

Implementation of the proposed Project will reduce the potential for contamination of shared waterbodies, including the Rio Grande. Additionally, due to the proximity of Ojinaga to Presidio, Texas, there are frequent border crossings between these two communities. The rehabilitation of wastewater collection infrastructure will have a positive impact on the health of residents in this neighboring city and surrounding communities, since these actions will help reduce the risk for waterborne diseases deriving from exposure to untreated wastewater.

According to the Texas Surface Water Quality Standards for the Rio Grande Basin, the segment 2306 RG above Amistad International Reservoir is classified as Use for Primary Contact Recreation, High Aquatic Life and Public Water Supply. As reported in the 2018 Basin Summary Report for the Rio Grande Basin in Texas[8], Assessment Unit (AU) 2306_08, from Alamito Creek confluence upstream to the Rio Conchos confluence, is impaired for chloride, sulfate, and total dissolved solids, and has water quality concerns for chlorophyll-a and fish kill reports. This AU is monitored by Stations 13229, 17000, and 17001; as shown in Figure 3.

[8] 2018 Basin Summary Report for the Rio Grande Basin in Texas, published by the International Boundary and Water Commission, U.S. Section, which is one of 15 partner agencies that collaborate with the Texas Commission on Environmental Quality (TCEQ) to administer the Texas Clean Rivers Program (CRP).

Figure 3
RIO GRANDE WATER QUALITY IN SEGMENT 2306 RG
(UPSTREAM OF THE AMISTAD RESERVOIR)



3.2.2. Compliance with Applicable Environmental Laws and Regulations

The Project will comply with the following official Mexican standards and regulations:

- *Official Mexican Standard NOM-002-SEMARNAT-1996*, which establishes the maximum permissible levels of contaminants for wastewater discharges into urban or municipal wastewater collection systems.
- *Official Mexican Standard NOM-001-CONAGUA-2011*, which establishes specifications for hermeticity in water distribution systems, residential water connections and wastewater collection systems, as well as methods for testing hermeticity.
- *Official Mexican Standard NOM-001-SEMARNAT-1996*, which establishes the maximum permissible level+++s of contaminants for wastewater discharges to national waters and resources.

A. Environmental Clearance

Pursuant to the provisions of the General Law of Ecological Balance and Environmental Protection of the State of Chihuahua, the Wastewater System Rehabilitation Project to be implemented in the downtown and central areas of Ojinaga, Chihuahua, does not require the development of an Environmental Impact Statement, as the tasks will be carried out in an urban area. The foregoing

was determined by the Ministry of Urban Development and Ecology of the State of Chihuahua, which issued Memorandum No. DOEIA.IA.236/2017 on February 9, 2017, stating that the Project does not require any environmental authorization.

To be eligible for a BEIF grant supported by federal appropriations to EPA's U.S.-Mexico Border Water Infrastructure Program, the transboundary impacts of the Project must be examined in compliance with the U.S. National Environmental Policy Act (NEPA). To meet this requirement, a Transboundary Environmental Information Document (EID) was developed and submitted to EPA for its review and ruling.

The EID addresses environment impacts resulting from the implementation of the project, specific concerns addressed in the NEPA process include:

- Air quality, odors, and greenhouse gas emissions;
- Noise impacts;
- Water quality, hydrology, and floodplain impacts;
- Impacts to biological resources and wetlands;
- Impacts to cultural and historical resources;
- Impacts to the geology and soils;
- Impacts to municipal and public services;
- Public health, hazards, and waste management;
- Socioeconomic conditions;
- Land use and planning;
- Transportation and circulation;
- Utilities and service systems; and
- Environmental justice.

The EID reviewed the quality of several segments of the Rio Grande, including the impact of the discharge of the Ojinaga WWTP into segments downstream of this receiving body. Based on the results and conclusions of the EID, the EPA Region 6 Office determined that the proposed Project qualifies for the categorical exclusion set forth under 40 CFR §602.4(a)(l)(ii) as it involves minor upgrading and expansion of existing infrastructure systems and system components. In addition, the Project does not involve new or relocated discharges to surface or ground water; will not result in the substantial increase in the volume or the loading of pollutant to the receiving water; will not provide capacity to serve a population of 30% greater than the existing population; and will not directly or indirectly involve upgrading or extending infrastructure systems for the purpose of future development. The proposed construction activity will take place in previously disturbed utility corridor and no new land disturbance would be required. On September 17, 2019, the EPA issued the Categorical Exclusion.

B. Mitigation Measures

The agencies that evaluated the Project considered that its implementation will not result in any significant negative impacts to the environment, therefore, no mitigation measures were

established to address the negative environmental impacts that could be generated during the construction and operation of the Project. However, JMAS has considered addressing potential temporary and minor environmental impacts that may arise, including the following:

- The local air basin may be temporarily impacted by carbon monoxide, nitrous oxide and sulfur dioxide emissions released by vehicles and equipment used during construction.
- Noise levels may be elevated during construction activities; however, this impact is short term and will be concentrated in the work area. Potential impacts also include temporary roadway blockages, as well as the presence of workers in the area.
- A temporary increase in dust emissions may be experienced due to the construction.
- Hazardous waste—such as used oil—may be generated during the construction phase.
- Surface water resources could be temporarily impacted by storm water runoff during the construction phase.

Typical mitigation measures to be implemented include:

- Application of water to reduce the emission of dust particles and soil erosion;
- Construction to be scheduled between 8 a.m. and 5 p.m. to prevent extended disturbances from noise;
- Vehicle tune-ups to reduce emissions;
- Placement of warning signs to prevent potentially hazardous situations; and
- Hay bales or silt fences may be placed along rights of way to avoid contaminants to surface water resources.

By following Best Management Practices, the temporary impacts due to construction will be minimized. Moreover, the long-term results from the implementation of the proposed Project will be positive overall. In addition, JMAS will be responsible for maintaining continuous coordination with the applicable environmental protection agencies and must comply with any water quality requirements, authorization procedures or recommendations that the agencies may issue throughout the life of the Project.

C. Pending Environmental Tasks and Authorizations

There are no environmental authorizations pending.

3.3. Financial Criteria

The total estimated cost of the Project is $2,540,500, which includes construction and value-added taxes (VAT), as well as the cost for supervision and contingencies. The Sponsor requested a BEIF grant to support implementation of the Project. Based on a thorough analysis of both the Project and Sponsor, NADB has determined that the Project meets all BEIF program criteria and

is recommending that EPA approve a BEIF grant of up to $1,019,450 for its construction. Table 4 presents a breakdown of total Project costs, as well as the sources of funding.

Table 4
USES AND SOURCES OF FUNDS
(US dollars)

Uses	Amount	%
Construction*	$ 2,540,500	100.0
TOTAL	**$ 2,540,500**	**100.0**
Sources	**Amount**	**%**
Federal Mexican funds	$ 760,525	30.0
State and local Mexican funds	760,525	30.0
NADB-BEIF (EPA grant)	1,019,450	40.0
TOTAL	**$ 2,540,500**	**100.0**

* Estimated Project costs include 16% value-added tax (VAT), supervision and contingencies.

The EPA requires that every grant dollar awarded to projects in Mexico through BEIF, be matched with funding from Mexican sources. As indicated in the above table, total funding from Mexican sources for this Project is estimated at US $1,521,050 and will cover approximately 60% of the Project cost.

4. PUBLIC ACCESS TO INFORMATION

4.1. Public Consultation

NADB published the draft certification proposal for a 30-day public comment period beginning on October 9, 2020. The following Project documentation is available upon request:

- Final Design for the Project for Rehabilitation of the Wastewater Collection System in the Central Area of Ojinaga, Chihuahua, September 2019;
- Transboundary Environmental Information Document for the Project for Rehabilitation of the Wastewater Collection System in the Central Area of Ojinaga, Chihuahua, September 2019;
- Categorical Exclusion for the Rehabilitation of the Wastewater Collection System in the Central Area of Ojinaga, Chihuahua, Mexico, issued by EPA on September 17, 2019; and
- Memorandum No. DOEIA.IA.246/2017, dated February 9, 2017, issued by the Secretary of Urban Development and Ecology of the State of Chihuahua.

The 30-day public comment period ended on November 8, 2020, with no comments received.

4.2. Outreach Activities

JMAS conducted extensive outreach efforts to publicize the characteristics of the Project, including cost and fees, and to obtain the support of residents for the Project. In accordance with the requirements of the BEIF program, outreach activities included the establishment of a local steering committee, public meetings, and access to relevant Project information, as described in the Public Participation Plan.

The Local Steering Committee was established in January 2018 and included members of the community, civic organizations, and JMAS staff. The steering committee developed the Public Participation Plan and periodically met with the Project team to help the Sponsor disseminate information regarding the Project. The technical and financial information about the Project was made available to the public for review. The Local Steering Committee, with the assistance of JMAS staff, prepared a Project fact sheet and presentations.

The notice for the first public meeting was published on February 7-8, 2018 in the local newspaper, "Semanario la Frontera". The meeting was held on March 19, 2019 at the "Meson de Juan" event hall in Ojinaga, Chih. Based on the sign-in sheet, more than 37 people attended the meeting and showed interest in the implementation of the proposed Project. This meeting was used to inform residents of the Project characteristics and potential funding sources. Support for the Project was documented through a survey conducted during the event, in which 100% of the attendees indicated they were in favor of the Project.

A second public meeting was held on February 6, 2020 to inform the community of the proposed funding structure and potential environmental impacts of the Project, 17 people attended the meeting and showed interest in the implementation of the proposed Project. Support for the Project was documented through a survey conducted during the event, in which 100% of the attendees indicated they were in favor of the Project.

NADB performed a media search to identify any media coverage and to gauge public opinion about the Project. The search found three references to the Project, as follows:

- *El Dictamen de Ojinaga* (March 20, 2019) "*Realizan reunión informativa sobre el proyecto de rehabilitación de alcantarillado sanitario de la zona centro de Ojinaga*" [Public Meeting held regarding wastewater system rehabilitation project in downtown Ojinaga]. Retrieved from: https://eldictamendeojinaga.com.mx/principales/realizan-reunion-informativa-sobre-el-proyecto-de-rehabilitacion-de-alcantarillado-sanitario-de-la-zona-centro-de-ojinaga/

- *Grupo BM Radio* (March 20, 2019) "*Se celebró reunión pública para presentar proyecto de rehabilitación de alcantarillado de la Zona Centro"* [Public meeting held to present the wastewater system rehabilitation project in downtown Ojinaga]. Retrieved from https://www.gbmradio.com/noticia/88445

- *Juárez a Diario* (June 2, 2020) "*Se realiza la segunda reunión pública para presentar proyecto de rehabilitación del drenaje sanitario de la zona centro de Ojinaga*" [Second

public meeting held to present the wastewater system rehabilitation project in downtown Ojinaga] Retrieved from: https://www.juarezadiario.com/estado/se-realiza-la-segunda-reunion-publica-para-presentar-proyecto-de-rehabilitacion-del-drenaje-sanitario-de-la-zona-centro-de-ojinaga/

The activities carried out by JMAS and the media coverage identified above demonstrate that the public has received updates related to the Project, including its technical aspects, environmental effects, funding structure and financial impacts to residents. The Project Sponsor informed NADB that no comments expressing concern about the Project have been received during the public outreach process. To date, no opposition to the Project has been identified.

5. RECOMMENDATION

Certification Criteria Compliance

The Project falls within the eligible sector of wastewater and is located in the border region, as required under NADB Charter. The 30-day public comment period ended on November 8, 2020, with no comments received. 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

The Project Sponsor applied for funding through the U.S.-Mexico Border Program prioritization process and was selected for technical assistance through the Project Development Assistance Program (PDAP) and construction assistance through the Border Environment Infrastructure Fund (BEIF). The Project meets all BEIF program criteria, and the U.S. Environmental Protection Agency (EPA) is expected to approve a BEIF grant for up to US$1,019,450 for its construction.

Accordingly, based on the foregoing conclusions as supported and presented in detail in this certification proposal, NADB hereby recommends the certification of the Project.