CERTIFICATION PROPOSAL

WASTEWATER COLLECTION AND TREATMENT PROJECT IN CAMARGO, TAMAULIPAS

CONTENTS

EXECUTIVE SUMMARY

WASTEWATER COLLECTION AND TREATMENT PROJECT IN CAMARGO, TAMAULIPAS

The proposed project consists of the construction of a wastewater collection system in the unserved areas of La Mision and El Sauz, including the installation of yard-line connections from the home to the wastewater collection system and decommissioning of existing on-site wastewater disposal systems; the replacement of a lift station, collector and sewer main; and the construction of a wastewater treatment plant (WWTP) with a capacity of 25 liters per second (lps) or 0.57 million gallons per day (mgd) ("the Project").

The purpose of the project is to provide first-time access and connect households in unserved areas to the wastewater system, eliminate untreated or inadequately treated wastewater discharges and improve the quality of effluent discharges to receiving water bodies, contributing to the reduction of water pollution and the risk of waterborne disease.

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

- Provide first-time access to wastewater collection and treatment services for 347 existing homes in La Mision and El Sauz, including the installation of all household connections;[1]
- Prevent the risk of groundwater contamination by decommissioning 347 on-site wastewater disposal systems;
- Improve wastewater collection and treatment services to 100% of existing wastewater connections or 2,247 homes;[2]
- Provide 25 lps or 0.57 mgd of wastewater treatment capacity with a system for methane capture and conversion;
- Eliminate approximately 22 lps or 0.50 mgd of untreated or inadequately treated wastewater discharges.

[1] A household connection is the yard-line pipe extending from the sewer collection infrastructure to the home. The connection activities will also include the decommissioning of all on-site wastewater disposal systems.

[2] Estimated number of connections in the project area, considering 3.4 persons per household, according to the 2010 Census conducted by the Mexican National Institute of Statistics and Geography (INEGI).

8,819 residents of Camargo, Tamaulipas.[3]

(COMAPA).

US$3,428,333.[4]

US$2,531,363 grant from the Border Environment Infrastructure Fund (BEIF) funded by the U.S. Environmental Protection Agency (EPA).

Construction*	$ 3,428,333	100.0

Mexican funds (federal, state & local)	$ 896,970	26.2
NADB-BEIF (EPA grant)	2,531,363	73.8

* Estimated costs include 16% value-added tax (VAT), 10% for supervision and 10% for contingencies on BEIF funded components

Environmental clearance – U.S.	Complete
Environmental clearance – Mexico	Complete
Final Design	Complete
Construction with Mexico funds	Complete
Procurement for BEIF grant components	Anticipated in 3rd quarter of 2018
Construction period with BEIF grant	Estimated period of 18 months
Discharge permit	Pending – prior to operation

[3] Source: Updated Final Design for the Wastewater Collection and Treatment Project in Camargo, Tamaulipas, January 2017.

[4] All U.S. dollar figures for BEIF and BEIF funded components are quoted at an exchange rate of $18.0 pesos to the dollar, based on the average exchange rate set by Banco de Mexico to pay obligations entered into in U.S. dollars payable in México (FIX) for the last two years.

CERTIFICATION PROPOSAL

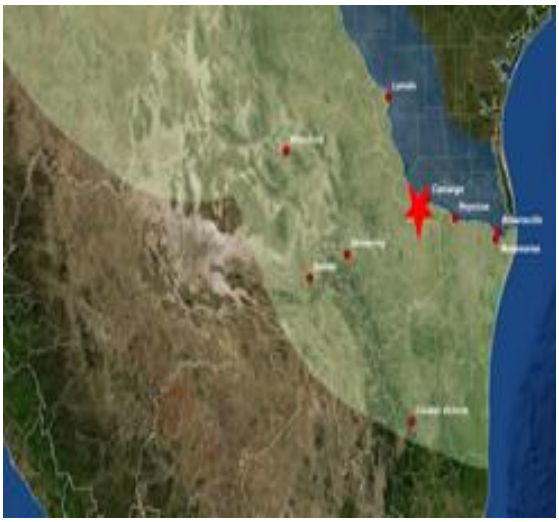
WASTEWATER COLLECTION AND TREATMENT PROJECT IN CAMARGO, TAMAULIPAS

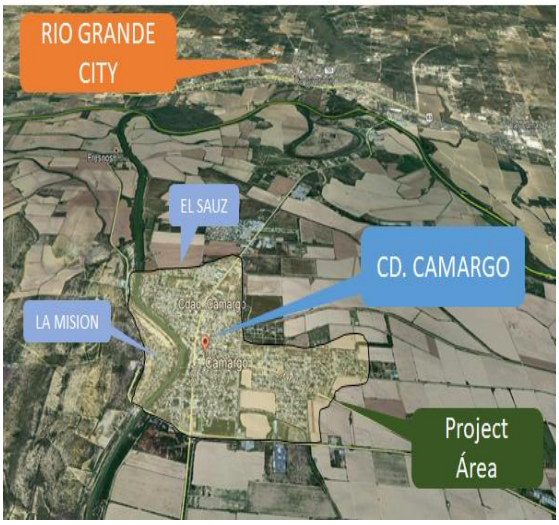
The purpose of the project is to provide first-time access to, and use of, wastewater services to 347 homes in the unserved areas of La Mision and El Sauz, as well as improved service to the 2,247 homes already connected to the wastewater collection system, in the city of Camargo, Tamaulipas. The new infrastructure will eliminate 22 liters per second (lps) or 0.50 million gallons a day (mgd) of untreated or inadequately treated wastewater discharges and improve the quality of the effluent discharged to receiving water bodies by increasing wastewater treatment capacity, thereby contributing to the reduction of water pollution and the risk of waterborne disease.

The Project falls within the eligible category of wastewater collection and treatment.

The proposed project consists of the construction of a wastewater collection system in the unserved areas of La Mision and El Sauz, including the installation of yard-line connections from the home to the wastewater collection system and the decommissioning of on-site wastewater disposal systems. Additionally, the Project will improve wastewater conveyance and treatment infrastructure by replacing a lift station, collector and sewer main, as well as constructing a new wastewater treatment plant (WWTP) with a capacity of 25 lps or 0.57 mgd (the “Project”).

The Project will be implemented in an area that includes the city of Camargo and adjacent subdivisions, such as El Sauz and La Mision, in the state of Tamaulipas (the “Project Area”). It is located approximately six kilometers or less than four miles from the U.S.-Mexico border at the geographical coordinates: 26º 18’ 33” latitude north and 98º 50’ 08” longitude west, at 68 m (223 ft) above mean sea level, and across the border from Rio Grande City, Texas. The Project is in the border region, which in Mexico is defined as the area within 300 km (187.5 miles) of the U.S.-Mexico international border. Figure 1 shows the approximate location of the Project.





The public-sector Project sponsor is the local water and wastewater utility, ("COMAPA" or "the Utility"). The legal authority of COMAPA is established in Decree No. 250 of the 58th Constitutional Legislature of the Free and Sovereign State of Tamaulipas, published on March 26, 2003, which provides for the establishment of a municipal public utility with legal authority and capital assets, for the purpose of providing water and wastewater services to the Municipality of Camargo, Tamaulipas.[5]

Due to its geographic location, Camargo has a border crossing into Rio Grande City in Starr County, Texas. Border crossing entry data maintained by the U.S. Bureau of Transportation Statistics shows that in March 2018, more than 5,000 pedestrians and 27,600 personal vehicles used the Rio Grande City-Camargo port of entry. The economy of Camargo is based primarily on agricultural, livestock, fishing and commercial activities. The city is also home to a handful of (twin manufacturing plants), which are an important source of employment in the community.

[5] In Mexico, a " " or municipality has a similar jurisdiction to a county in the United States.

According to data from the 2010 Population and Housing Census published by the Mexican National Institute of Statistics and Geography (INEGI), the municipality of Camargo had 14,933 residents, of which 37.7% were part of the labor force.[6] Based on the population projections developed by the National Population Council (CONAPO), in 2018, the Project Area has an estimated 8,819 residents.[7] In 2010, 44.3% of residents in the municipality of Camargo were living below poverty level.[8]

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

[2]	
Coverage:	95 %
Water supply source:	Rio Grande
Number of hookups:	2,594
[2]	
Coverage:	87 %
Number of residential connections:	2,247
Coverage:[3]	0 % (Once the Project is operational, coverage will be 100%).
Treatment facilities:	None[4]
Solid waste collection:	90 %
Final disposal:	Landfill
Coverage:	60% (estimated)

[1] This table includes only the Project Area related to the planned wastewater collection system improvements and treatment plant to be implemented under the proposed Project.
[2] Source: Data provided by COMAPA, March 2018.
[3] Service coverage for wastewater treatment equals the percentage of discharges collected through the centralized collection system and treated by a centralized wastewater treatment facility.
[4] Although a lagoon to receive collected sewage discharges is available in the community, the unlined pond provides no treatment and allows untreated wastewater to infiltrate into the soil and nearby waterways.
[5] Source: Estimates from the Department of Public Works of Camargo.

[6] Source: INEGI, [2010 Population and Housing Census], accessed via Internet on April 12, 2017.
[7] Source: Updated Final Design for the Wastewater Collection and Treatment Project in Camargo, Tamaulipas., January 2017.
[8] Source: [National Council for Evaluation of Social Development Policy (CONEVAL)], " [Annual Report on the Poverty Conditions and Social Needs in Camargo, Tamaulipas], accessed via Internet on April 12, 2017 (https://www.gob.mx/cms/uploads/attachment/file/46827/Tamaulipas_007.pdf).

Local Wastewater System Profile

Built in the 1970's, the unlined wastewater lagoon system in Camargo does not provide treatment and simply operates as infiltration/evaporation ponds with the inherent risk of groundwater contamination. Moreover, the wastewater collection and conveyance system in Camargo has several deficiencies, including:

- The sewer main to the lift station is undersized and experiences frequent leaks and spills; and
- The lift station and force main to the lagoon system have exceeded their useful life and experience leaks and recurrent problems that result in open-air, raw sewage discharges that eventually flow into the San Juan River.

Additionally, areas such as La Mision and El Sauz, within the municipality, lack wastewater collection services.

Approximately 22 lps (0.50 mgd) of wastewater is currently generated by the community, including the unserved areas of La Mision and El Sauz. The untreated or inadequately treated flows are filtrating into the ground and water table within the vicinity of the San Juan River, a tributary to the Rio Grande. This condition, coupled with the risk to residents of direct contact with raw sewage resulting from sewer system failures, were the reason why the U.S. Environmental Protection Agency (EPA) selected the Project to receive funding from the Border Environmental Infrastructure Fund (BEIF).

The proposed Project will extend service to the unserved areas and rehabilitate the main lift station and force main, so that wastewater can be safely conveyed to the proposed wastewater treatment facilities with less risk of leaks and spills. Additionally, the Project will provide a reliable wastewater treatment system for Camargo residents. In 2011, as part of this Project, the Mexican National Water Commission (CONAGUA), in coordination with the State Water Commission (CEAT), initiated improvements to address some of these issues, including expansion of wastewater collection coverage to unserved areas and installation of a new sewer main.

This Project will reduce the risk of exposure to raw wastewater for Camargo residents and will prevent the contamination of major bodies of water, such as the Rio Grande and San Juan rivers. The Project will benefit approximately 2,594 households or an estimated 8,819 residents.

The drinking water system in the city of Camargo is operating properly and provides adequate disinfection, in compliance with the quality standards established under Official Mexican Standard NOM-127-SSA-1994.

The Project consists of improvements to the wastewater collection and treatment infrastructure in Camargo, and will result in 100% wastewater treatment coverage for the Project Area.

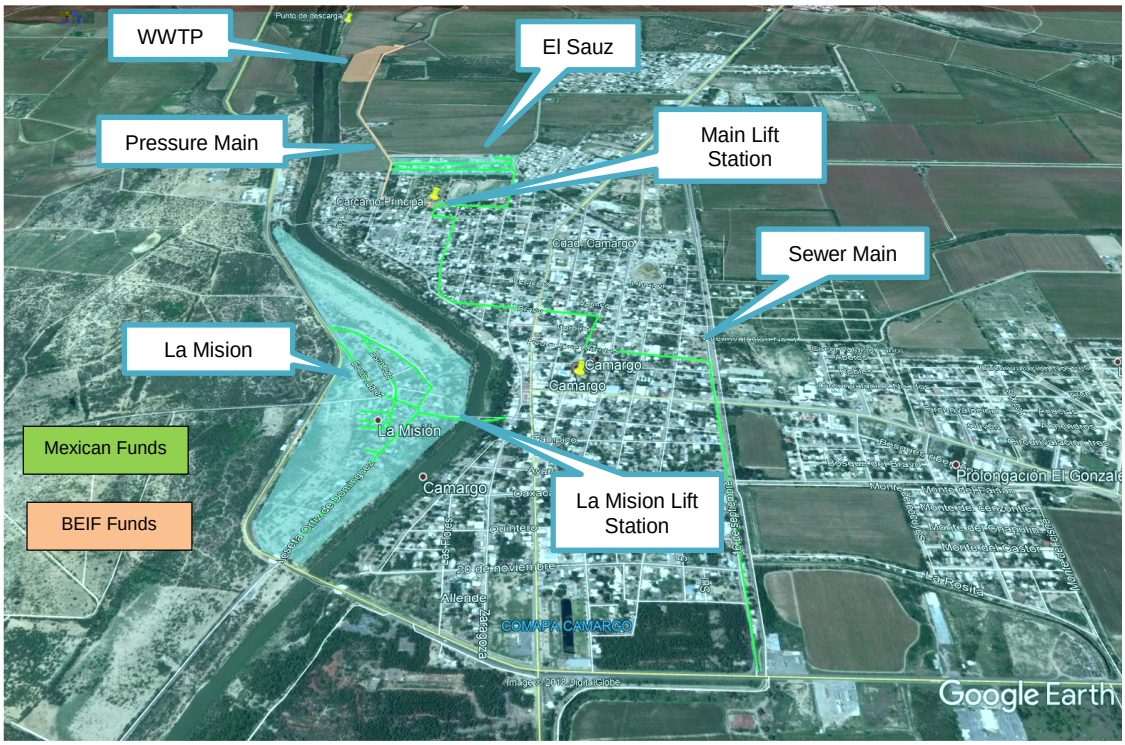
The Project includes the following components:[9]

- _____, including the installation of approximately 2,600 m (8,530 ft) of 20 cm (8") diameter PVC sewer lines, 35 manholes, a lift station with an average capacity of 1.25 lps (0.03 mgd) capacity, 253 m (830 ft) of 10 cm (4") diameter galvanized steel force main and 161 residential connections. [10]
- _____, including the installation of approximately 2,000 m (6,562 ft) of 20 cm (8") diameter PVC sewer lines, 21 manholes and 186 residential connections.
- _____, including the installation of approximately 2,670 m (8,760 ft) of 45 cm (18") diameter PVC sewer lines and 36 manholes.
- _____ with an average flow rate 23.7 lps (0.54 mgd), a mechanical screening system, three 20-HP pumps and a 12-HP pump.
- _____, with the capacity to handle a peak flow rate of 105.8 lps (2.41 mgd) and consisting of 1,818 m (5,965 ft) of 25 cm (10") diameter high-density polyethylene (HDPE) pipe.
- _____ consisting of a lagoon system with an anaerobic lagoon, two facultative ponds and two maturation ponds with the capacity to treat 25 lps (0.57 mgd). The facility will include a system to capture methane emissions and convey them to a burner for conversion to carbon dioxide.

The final design has been completed for the construction of the WWTP. The treated effluent will be conveyed to the San Juan River, which flows into the Rio Grande. On August 23, 2017, COMAPA sent CONAGUA a request to modify the WWTP discharge parameters for biochemical oxygen demand (BOD) to 75 parts per million (ppm) and total suspended solids (TSS) to 75 ppm. Figure 2 shows the Project components.

[9] The first three components have been completed with funds from Mexico.

[10] Galvanized steel was the preferred material for this component because the pipe will be installed above ground, and attached to an existing bridge, where it will be exposed to sun and other harsh elements.



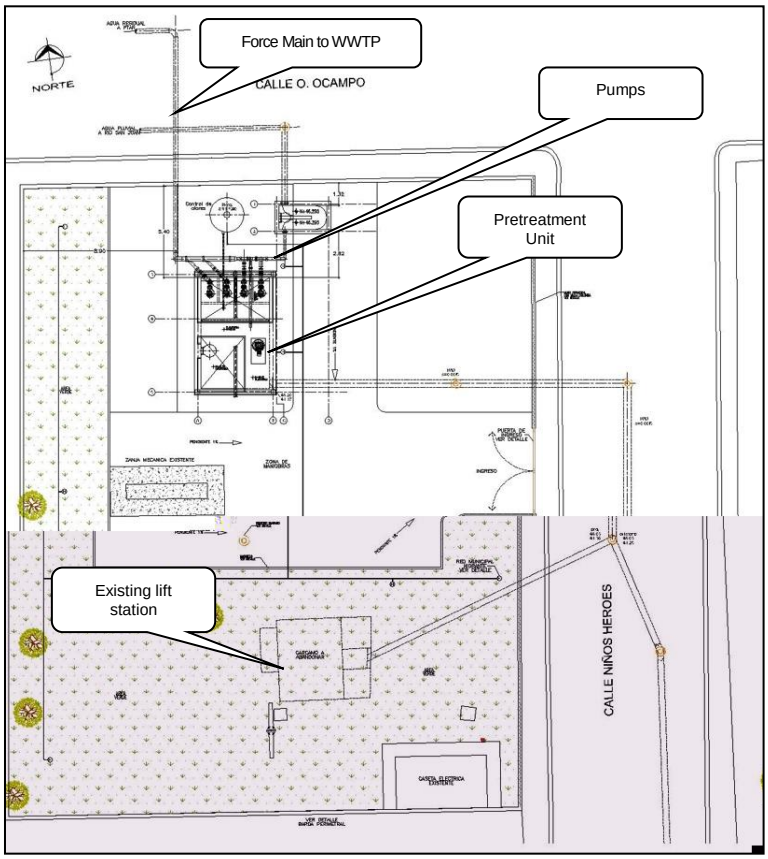
WWTP = Wastewater Treatment Plant

Funding provided by Mexico was used to complete the following Project components:

- Wastewater collection system in El Sauz and La Mision subdivisions;
- Installation of 186 residential connections in the El Sauz subdivision;
- Lift station in La Mision, with the corresponding force main; and
- Replacement of the 45 cm (18") PVC sewer main.

The Project sponsor proposes using BEIF funds to complete the construction of the WWTP, the main lift station, the force main at the WWTP lift station and approximately 161 residential connections in La Mision, including the decommission of existing septic tanks.

The main lift station was designed with an average flow rate of 23.7 lps (0.54 mgd) and a peak rate of 105.8 lps (2.41 mgd). It will also have a mechanical screening system, three 20-HP pumps and a 12-HP pump. Figure 3 shows the general layout of the main lift station.



WWTP = Wastewater Treatment Plant

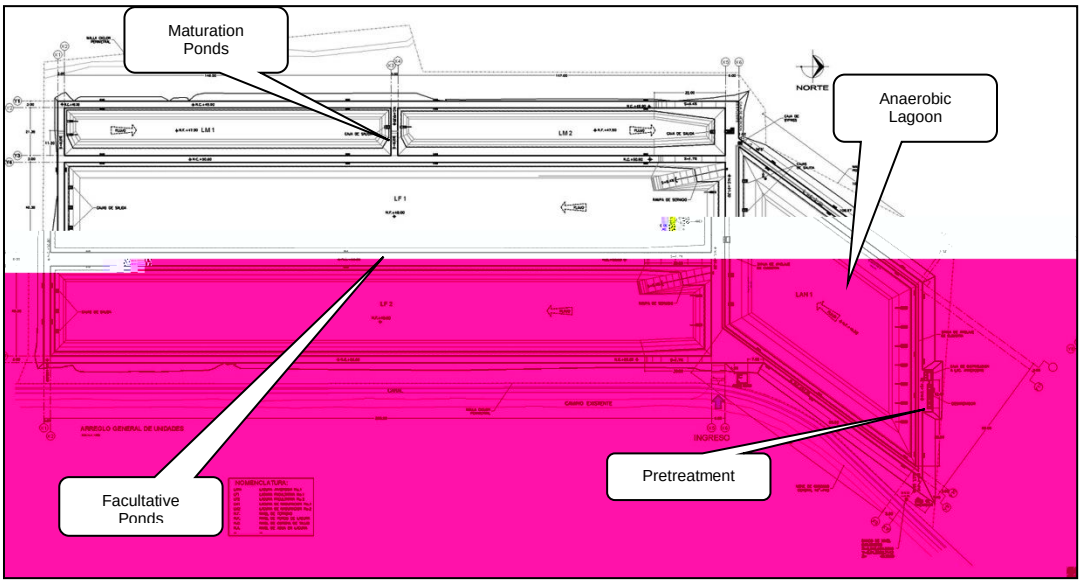
The WWTP will consist of the following components:

- A conventional grit removal pretreatment system;
- A 90 m x 51 m x 4 m (295 ft x 167 ft x 13 ft) anaerobic pond, lined and covered with HDPE membranes, with the cover serving to contain methane emissions, which will be conveyed to a burner for conversion to carbon dioxide;
- Two 290 m x 33 m x 2 m (951 ft x 108 ft x 7 ft) facultative ponds, lined with a HDPE membrane;
- Two 140 m x 14.5 m x 1.5 m (459 ft x 48 ft x 5 ft) maturation ponds, lined with a HDPE membrane; and
- Outfall to the San Juan River.

The conversion of methane to carbon dioxide is 21 times less polluting than methane with respect to its impact as a greenhouse gas. Additionally, the bottom of the treatment units will be lined with a high-density polyethylene membrane to prevent seepage to groundwater. Once the WWTP is fully operational, Camargo will have 25 lps (0.57 mgd) of wastewater treatment capacity, which

will be sufficient to treat 100% of the wastewater flows collected by the local sewer system, which are estimated to be 22 lps (0.50 mgd).[11]

The sludge generated by the WWTP will be stored and stabilized within the ponds. Under normal circumstances, the lagoon system is designed to manage sludge storage for the life of the facility or approximately 20 years. The sludge typically remains at the bottom of the ponds, where it will break down over time and eventually mineralize. However, should the lagoon capacity be affected by silt or other non-decomposable elements, either the life of the facility will be shortened, or sludge removal methods could be considered. If the removal of sludge is viable, final disposal would be at the municipal landfill. However, if the applicable analyses are favorable, the sludge could be used as an agricultural soil enhancer. Figure No. 4 shows the general layout of the Wastewater Treatment Plant.



As part of the development of the Project, facility plans were completed during the planning phase, which included an analysis of alternatives in order to select the appropriate technology for the Project. The analysis considered the No Action alternative, four wastewater treatment alternatives and two other alternatives based on the selection of materials for the wastewater collection system and force mains.

[11] Source:
[Updated Final Design of the Wastewater Collection and Treatment Project for Ciudad Camargo, Tamaulipas]. January 2017.

The no-action alternative was immediately eliminated, since without project implementation, COMAPA would continue to operate in violation of existing regulations regarding wastewater discharges into receiving bodies and the discharge of untreated or inadequately treated wastewater would continue to have an effect on water quality and public health.

Once the no action alternative was eliminated, wastewater treatment and 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.

In order to reduce costs and energy consumption, as well as make the best use of the natural topography of the site, the shortest possible routes were reviewed for installing the force main and wastewater collectors. Sewer pipe diameters were calculated using slopes and velocities aimed at preventing silting, septic conditions and over excavation, as well as to minimize the use of lift stations that might increase Project costs. The maximum flow rate, full build-out in the Project Area and treatment capacity were also taken into consideration to determine pipe diameter requirements. Pipe material options reviewed included HDPE, PVC, and reinforced concrete. PVC was selected as the best material for the wastewater collection lines, and HDPE for the force mains.

With respect to the WWTP, based on the discharge quality requirements established by CONAGUA, the availability of land and the climate in the region, several lagoon system options were analyzed:

- _____ – Anaerobic lagoon followed by two facultative ponds and finally two maturation ponds;
- _____ – Facultative pond followed by a maturation pond;
- _____ – Two facultative ponds in sequence and a final maturation pond; and
- _____ – Aerated lagoon followed by a settling pond and final disinfection by UV radiation.

Alternative 1 was selected as the preferred option due to the reliability of its operation, ease of maintenance and lower operating cost compared to Alternative 4. Additionally, the utility has suitable land available for this type of facility.

Final designs for the wastewater collection system, lift stations and WWTP in Camargo 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. An extensive effort was made to achieve optimal energy efficiency and operational performance. The final designs were reviewed by CONAGUA, NADB, and CEAT. CONAGUA issued technical validation of the various Project components as follows:

- Validation of the design criteria for the Camargo wastewater collection, conveyance and treatment infrastructure, through Official Letter No. BOO.07.04-102 dated June 4, 2015; and
- Validation of the final design for the WWTP and main lift station through Official Letter No. BOO.07.04-006 dated January 18, 2017.

COMAPA currently serves a total of 2,594 water hookups and 2,247 wastewater connections within the Project Area. The Utility is organized in various departments, including Operation, Maintenance and Management. The impact of the proposed Project on the O&M budget and procedures was reviewed. Based on results of the review, the budget appears sustainable and will be supported by a rate increase for wastewater service. Both O&M and repair and replacement reserves will also be established for the Project.

Management and operation of the proposed Project will be the responsibility of the Utility, which 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. The manual will be updated and delivered to the Utility upon completion of the Project. COMAPA staff will receive training related to the processes of the new WWTP to ensure its correct operation.

Additionally, COMAPA will ensure that wastewater discharges to the collection system comply with Official Mexican Standard NOM-002-SEMARNAT-1997, which regulates the quality of the wastewater that enters the collection system and is conveyed to the treatment facility.

COMAPA acquired the property for construction of the WWTP and the lift station by purchasing it from private landowners. The corresponding titles have been duly authenticated, and all properties have been legally recorded in the Public Registry of Property.

All sewer mains and conveyance systems will be installed within existing municipal easements and rights-of-way.

The development of the Project required just over six years. This extended period was influenced by several factors, including issues with security for field activities, such as water sampling and surveying; the need to register acquired land titles properly; and the implementation of match investments by Mexico funded in 2012, 2014 and 2016. Completion of these investments coincided with the conclusion of the final designs of the components to be funded with BEIF in 2017. Finally, negotiation of the discharge permit requirements was conducted over the past year with the expectation that the permit will be received in sufficient time to initiate operations when construction is complete on the WWTP.

Once the Notice to Proceed is received for the construction of the lift station, force main and wastewater treatment infrastructure, the work is expected to take approximately 12 months to complete. Potential factors affecting the Project completion timeline, such as issues with weather or the delivery of the materials, were considered in estimating the anticipated construction duration. After completion of the WWTP, the installation of hookups and the decommissioning of the on-site wastewater disposal systems are estimated to take six additional months to complete.

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

Environmental clearance – U.S.	Completed December 20, 2013
Environmental clearance - Mexico	Not required (Official Letter No. SGPARN/03-2242/13 dated December 19, 2013)
Final design	Completed in January 2017
Construction with Mexican funds	Completed between April 2012 and February 2017
Procurement for BEIF grant components	Pending - Anticipated in the third quarter of 2018
Construction period with BEIF grant	Pending - Estimated period of 18 months
Discharge permit	Pending – Prior to operation

i) Existing Conditions

At present, Camargo does not have the capacity to treat the wastewater flows generated by its residents. Wastewater flows collected from areas currently connected to the sewer system are diverted to an old lagoon-based treatment facility that has exceeded its useful life, where the raw wastewater flows seep into the ground and water table near the San Juan River, a tributary to the Rio Grande River. As a result, Camargo is not in compliance with Official Mexican Norm NOM-001-

SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into national waters and territories.

Additionally, wastewater collection coverage in the municipality of Camargo is approximately 87%. Residents in the La Mision and El Sauz subdivisions, which are located within or adjacent to the city, dispose of their wastewater in substandard septic tanks, latrines and cesspools. Moreover, the sewer main has exceeded its useful life, is showing signs of deterioration throughout its entire length and no longer has sufficient capacity to handle current wastewater flows, causing leaks and overflows at several manholes. Due to these conditions, residents are at risk of exposure to untreated wastewater discharges, while surface and groundwater resources are vulnerable to contamination.

ii) Project Impacts

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

- Provide first-time access to wastewater collection and treatment services for 347 existing homes in La Mision and El Sauz, including the installation of all household connections;[12]
- Prevent the risk of groundwater contamination by decommissioning 347 on-site wastewater disposal systems;
- Improve wastewater collection and treatment services to 100% of existing wastewater connections or 2,247 homes;[13]
- Provide 25 lps or 0.57 mgd of wastewater treatment capacity with a system for methane capture and conversion; and
- Eliminate approximately 22 lps or 0.50 mgd of untreated or inadequately treated wastewater discharges.

The Project will reduce environmental deterioration by providing wastewater collection and treatment services. Wastewater will be collected and conveyed to the WWTP, where its quality will be improved to reduce the risk of aquifer contamination and the health hazards resulting from the discharge of raw wastewater into local bodies of water. Using a high-density polyethylene membrane to line the lagoons will prevent seepage into the ground and aquifer. Additionally, the treated effluent from the WWTP may be reused for agricultural purposes, reducing the demand for fresh water in this sector. A reuse study was conducted as part of the design process and found that sufficient agricultural land exists in the area to consume 100% of the treated effluent during the growing season.

To enhance the benefits of the Project, the final designs include the implementation of green building practices as part of the technical construction specifications, with an extensive effort

[12] A household connection is the yard-line pipe from the sewer collection infrastructure to the home. The connection activities will also include the decommissioning of all on-site wastewater disposal systems.

[13] Estimated number of connections in the project area, considering 3.4 persons per household, according to the 2010 Census conducted by INEGI.

made to achieve optimal energy efficiency and operational performance. For example, to reduce harmful emissions from the operation of the plant, methane generated by the anaerobic process will be captured and burned, converting the more harmful methane gas into carbon dioxide.

The no-action alternative was not considered viable for the Project, since the poor condition of the existing wastewater collection infrastructure and the lack of wastewater treatment 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. Table 3 shows waterborne disease statistics for Camargo, Tamaulipas.

Intestinal infections by other organisms	626	799	837	487
Other helminthiasis	10	6	12	26
Intestinal amoebiasis	43	47	34	49
Paratyphoid fever and other salmonellosis	77	21	34	83

Source: Automated Epidemiological Monitoring System, 2017.

Through the Project, infrastructure will be constructed that greatly reduces the risk of untreated wastewater discharges into the environment, thereby helping to prevent related health risks and problems. Moreover, the Project will bring COMAPA into compliance with current wastewater regulations regarding discharges into receiving bodies.

iii) Transboundary Impacts

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

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

- Official Mexican Norm NOM-002-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into urban or municipal wastewater collection systems;

- Official Mexican Norm NOM-001-CNA-1995, which establishes the specifications for hermeticity in sanitary sewer systems;
- Official Mexican Norm NOM-001-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into national waters and territories; and
- Official Mexican Norm NOM-004-SEMARNAT-2002, which establishes the maximum permissible levels of contaminants for reuse and final disposal.

i) Environmental Clearance

The Project is subject to environmental authorization by the Mexican Ministry of Environment and Natural Resources (SEMARNAT) pursuant to the provisions of the General Law of Ecological Balance and Environmental Protection. Through its Federal Delegation in Tamaulipas, SEMARNAT issued Official Letter No. SGPARN/03-2242/13 on December 19, 2013, stating that an Environmental Impact Statement was not required for the Project. Additionally, the Federal Delegation of the National Institute of Anthropology and History issued Official Letter No. 164/2014 on February 28, 2014, stating that the Project can begin construction.

However, due to potential grant funding from the NADB Border Environment Infrastructure Fund (BEIF), which is funded by EPA, the transboundary impact of the Project must be assessed pursuant to the U.S. National Environmental Policy Act (NEPA). To satisfy this requirement, a Transboundary Environmental Information Document (EID) was developed and submitted to EPA for consideration. The document presents an assessment of the Project alternatives with respect to the following environmental factors:

- 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.

Based on the findings and conclusions of the EID, EPA Region 6 prepared an Environmental Assessment and a Finding of No Significant Impact (FONSI). A 30-day public comment period for the environmental study began on November 13, 2013. On December 20, 2013, EPA issued a FONSI resolution, which establishes that the Project will not result in any significant impacts to the environment that may negatively impact the U.S.-Mexico border area.

ii) 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. As described in the Environmental Assessment, potential impacts include:

- The local air basin may be temporarily impacted by carbon monoxide, nitrous oxide and sulfur dioxide emissions due to 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 soil erosion and dust emissions may be experienced due to construction.
- Surface water resources could be temporarily impacted by storm water runoff during the construction phase.
- Hazardous waste—such as used oil—may be generated during the construction and operation phases.
- Potential loss of vegetation, which may be a habitat during bird migration or nesting.

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 and noise effects;
- Placement of warning signs to prevent potentially hazardous situations;
- Hay bales or silt fences to be placed along rights of way to prevent erosion and contamination of surface water resources;
- Construction that disturbs vegetation will be avoided during the general nesting period from March through August. A qualified biologist will conduct a preconstruction survey within the Project area to identify any sensitive species in the area; and
- All construction personnel will attend a briefing to familiarize workers with potential construction impacts and mitigation measures.

By following the best management practices described in the Environmental Assessment, the temporary impacts due to construction will be minimized. Therefore, the results deriving from implementation of the proposed Project will be positive overall. In addition, the Utility will be responsible for maintaining continuous coordination with SEMARNAT and must comply with any water quality requirements, authorization procedures or recommendations that the Ministry may issue throughout the life of the Project.

iii) Pending Environmental Tasks and Authorizations

There are no environmental authorizations pending.

The total estimated cost of the Project is US$3,428,333, which includes construction, supervision, value-added taxes (VAT) and contingencies.[14] 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 $2,531,363 for its construction. Table 4 presents a breakdown of total Project costs, as well as the sources of funding.

Construction*	$ 3,428,333	100.0
Mexican funds (federal, state & local)	$ 896,970	26.2
NADB-BEIF (EPA grant)	2,531,363	73.8

* Estimated costs include 16% value-added tax (VAT), 10% for supervision and 10% for contingencies on BEIF funded components.

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$896,970. Although not part of this certification proposal, similar infrastructure works for Guardados de Abajo and Rancherías in the municipality of Camargo were completed with Mexican investments totaling more than $600,000. Those infrastructure works were supported by technical assistance from the NADB Project Development Assistance Program (PDAP) and have been accepted by EPA as an additional match to the BEIF investment for this Project. Additionally, water infrastructure investments completed within the State of Tamaulipas, in partnership with the BEIF program, represent an overall match greater than 1:1.

[14] All U.S. dollar figures are quoted at an exchange rate of $18.0 pesos to the dollar, based on the average FIX exchange rate of Banco de Mexico for the last two years.

NADB published the draft certification proposal for a 30-day public comment period beginning May 17, 2018. The following Project documentation is available upon request:

- Updated Final Design for the Wastewater Collection and Treatment Project in Camargo, Tamaulipas, AyMA, January 2017;
- Transboundary Environmental Impact Statement for the Wastewater Collection and Treatment Systems Improvement Project in Camargo, Ninjo and Moore, August 2009;
- Updated Transboundary Environmental Information Document for the Wastewater Collection and Treatment Systems Improvement Project in Camargo, Huitt Zollars Inc, April 2013;
- Environmental Assessment and FONSI for the Wastewater Collection and Treatment Systems Improvement Project in Camargo, Tamaulipas, Mexico, issued December 20, 2013;
- Wastewater Discharge Model for Camargo, Tamaulipas, Mexico in Subsegment 2302 of the Rio Grande, Huitt Zollars Inc, April 2013;
- Official Letter No. SGPARN/03-2242/13 dated December 19, 2013, issued by the Federal Delegation of SEMARNAT in Tamaulipas;
- Public Participation Report, including public meeting minutes, pictures, articles, and related materials.

The public comment period ended on June 16, 2018, with no comments received.

In addition to publication of the NADB certification proposal, the Project included a 30-day public comment period beginning on November 13, 2013, as part of the U.S. environmental clearance process. Only one public comment was received in favor of the proposed Project and the respective environmental impacts identified.

The Utility conducted extensive outreach efforts to publicize the characteristics of the Project, including cost and fees, and to obtain the support of residents in the Project Area. In accordance with the requirements of the BEIF program, outreach activities included the establishment of a local steering committee, public meetings and access to appropriate project information, as described in the Public Participation Plan. A summary of the outreach activities carried out for the Project is provided below.

The Local Steering Committee was established on August 17, 2009 and included members of the community, civic organizations and Utility staff. The steering committee developed the Public

Participation Plan and periodically met with the Project team to help the Utility 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 COMAPA staff, prepared a Project fact sheet and presentation. Information on the Project was presented to the community at two public meetings.

The notice for the first public meeting was published on September 28, 2009, in the local newspaper, . The meeting was held on October 28, 2009 at the local Lions Club (Cueva del Club de Leones) located at Calle Libertad y 20 de noviembre in Camargo. Based on the sign-in sheet, more than 130 people attended the meeting and showed interest in the implementation of the proposed Project. This meeting was used to inform local residents of the Project characteristics and potential funding sources. Support for the Project was documented through a survey conducted during the event, in which 98% of the attendees indicated they were in favor of the Project.

A second public meeting held on April 24, 2018 was attended by 51 residents. During the meeting, the community was informed of the proposed funding structure and potential environmental impacts of the Project. The meeting served as a discussion forum for attendees, who showed their support of and interest in having the Project implemented. A survey conducted during the event indicated that 98% of the attendees understood the Project and were in favor of its implementation.

NADB conducted a media search to identify potential public opinion about the Project. The articles found in the media explained the need for wastewater services in the area but did not contain any input from residents. No negative comments were posted by readers. No opposition to the Project was identified in the media search.

References to the Project were found on the websites listed below:

- _____ (April 24, 2018), [Second public meeting held in Camargo, Tamaulipas]. The article describes the proposed project, its funding sources and expected benefits and reported comments from residents.
  http://www.despertardetamaulipas.com/sitio/?q=node/58146

- _____ (April 26, 2018) " " [New sewer system discussed in meeting]. This article reported on the second public meeting, briefly describing the project, its cost and potential EPA funding.
  https://www.elmanana.com/ventilan-sesion-nuevo-alcantarillado-camargo-camara-comercio-alcantarillado/4388346

- _____ (October 21, 2016), " [BECC and NADB follow up on $50-million-peso project in Camargo]. The article reports on a working meeting with local officials and Utility staff to discuss the status of project development.
  http://www.elchilito.com.mx/nota.cgi?id=10216

The activities carried out by the Project Sponsor and the articles identified above demonstrate that the public received updates related to the Project, including its technical aspects, environmental effects, funding structure and financial impacts to residents deriving from implementation of the wastewater collection and treatment system improvements. The Project Sponsor informed NADB that no comments expressing concern about the Project were received during the public outreach process.