



CERTIFICATION PROPOSAL

REHABILITATION OF THE COLLECTOR ORIENTE IN TIJUANA, BAJA CALIFORNIA

Submitted: July 27, 2020



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EXECUTIVE SUMMARY

REHABILITATION OF THE COLLECTOR ORIENTE IN TIJUANA, BAJA CALIFORNIA

- Project:** The proposed project will replace 1,346 linear meters (4,416 ft) of deteriorated section of the sewer main known as the Collector Oriente located in Tijuana, Baja California (the “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, and thus reduce water pollution and the risk of waterborne diseases.
- Expected Outcomes:** The Project is expected to generate environmental and human health benefits related to the following outcomes:
- Improve wastewater collection infrastructure and services for up to 41,435 existing residential connections, benefitting approximately 154,000 residents.¹
 - Reduce the risk of pipeline failures resulting in untreated or inadequately treated wastewater discharges to the Tijuana River, which would prevent:
 - Approximately 312 liters per second (lps) or 7.1 million gallons per day (mgd) of uncontrolled wastewater discharges.²
 - Transboundary wastewater flows to the U.S.
- Population to Benefit:** 154,000 residents in Tijuana, Baja California.³
- Sponsor:** Local water utility, *Comisión Estatal de Servicios Públicos de Tijuana* (CESPT).

¹ Source: Local water utility (CESPT), Assistant Office of Construction, *Habitantes Beneficiados del Proyecto de Rehabilitación del Colector Oriente* [Residents Benefitted by Rehabilitation of the Oriente Collector Project], June 2020.

² Source: The flow volume was calculated based on the 41,435 wastewater connections served by the section of the collector to be rehabilitated, with 176 liters (46.5 gallons) of wastewater generated per person a day as indicated by the Government of Baja California in the 2019 Technical Standards for Water and Sanitary Sewer System Projects [*Normas técnicas para proyecto de sistemas de agua potable y alcantarillado sanitario, actualización 2019*] and 3.7 persons per household as reported by the Mexican national institute of statistics (INEGI).

³ The estimated population benefitted is calculated based on 3.7 persons per household, as reported by the Mexican national institute of statistics (INEGI) and rounded to the nearest 1,000 persons.

Estimated Project Cost: US\$1,790,576.

NADB Funding: US\$895,129 grant from the Border Environment Infrastructure Fund (BEIF) funded by the U.S. Environmental Protection Agency (EPA).

**Uses and Sources of Funds:
(US\$)**

Uses	Amount	%
Construction	\$ 1,593,323	89.0
Supervision and contingency	197,253	11.0
TOTAL	\$ 1,790,576	100.0
Sources	Amount	%
Mexican federal funds	\$ 268,634	15.0
Mexican state & local funds	626,813	35.0
NADB-BEIF (EPA grant)	895,129	50.0
TOTAL	\$ 1,790,576	100.0

Project Status:

Key Milestones	Status
Environmental clearance – U.S.	Complete
Environmental clearance – Mexico	Complete
Final design	Complete
Procurement for BEIF grant components	Anticipated in 3rd quarter of 2020
Construction period with BEIF grant	Estimated period of 12 months

CERTIFICATION PROPOSAL

REHABILITATION OF THE COLLECTOR ORIENTE IN TIJUANA, BAJA CALIFORNIA

1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES

The proposed project will replace 1,346 linear meters (4,416 ft) of a deteriorated section of the sewer main known as the Collector Oriente, located in Tijuana, Baja California (the “Project”). The purpose of the Project is to improve wastewater collection infrastructure and services for up to 41,435 existing residential wastewater connections, which will reduce the risk of pipeline failures and prevent approximately 312 liters per second (lps) or 7.1 million gallons per day (mgd) of untreated or inadequately treated wastewater discharges, thereby helping reduce water pollution and the risk of waterborne diseases, as well as transboundary wastewater flows into the United States.

2. ELIGIBILITY

2.1. Project Type

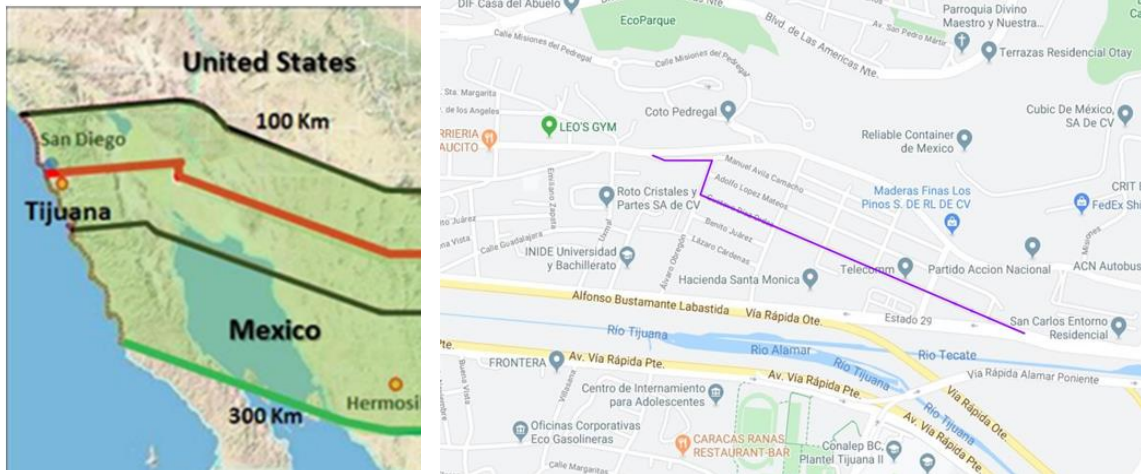
The Project falls within the eligible sector of wastewater.

2.2. Project Location

The Project will be implemented in the city of Tijuana, Baja California, which is adjacent to the U.S.-Mexico border. Tijuana is in the northwest region of the state of Baja California, approximately 16 miles south of the city of San Diego, California.

The Collector Oriente runs parallel to the Tijuana River for about 10 miles, conveying wastewater north to the International Collector, which runs parallel to the U.S.-Mexico border. The Buena Vista Section of the collector runs mainly along Gustavo Diaz Ordaz Avenue, with two smaller sections on Ojeda Robles Street, for a total length of approximately 1.35 km (0.84 miles). The Project is located approximately two miles south of the border and is roughly centered at the following coordinates: Latitude 32.31° north and longitude 116.58° west. Figure 1 shows the location of Tijuana and the Collector Oriente.

Figure 1
PROJECT LOCATION MAP



2.3. Project Sponsor and Legal Authority

The Project sponsor is the local water utility in Tijuana, *Comisión Estatal de Servicios Públicos de Tijuana* (CESPT or the “Sponsor”), a decentralized public entity, with its own legal capacity and assets, established by Decree No. 44 of the V Legislature of the State of Baja California, which was published on December 16, 1966. The utility was created to provide water and wastewater services to the municipalities of Tijuana and Playas de Rosarito, Baja California.⁴

3. CERTIFICATION CRITERIA

3.1. Technical Criteria

3.1.1. General Community Profile

The Project is expected to benefit residents in the community of Tijuana, Baja California. As reported by the Mexican national statistical institute, INEGI, the population of Tijuana was 1,641,570 in 2015, which represented approximately 50% of the state population. According to the projections of the Mexican national population council, CONAPO, Tijuana grew at an average annual rate of 2.4% from 2010 to 2015 and is expected to grow at an average annual rate of 1.3% from 2016 to 2030, which is close to the national growth rate of 1.8%.⁵

The section of the collector that will be rehabilitated under the Project receives wastewater flows from four areas of the Tijuana River watershed, which are identified as Mesa de Otay, Murua,

⁴ In Mexico, a “*municipio*” or municipality has a jurisdiction similar to a county in the United States.

⁵ Source: Mexican national population council, *Consejo Nacional de Población* (CONAPO).

Alamos and Industrial. There are 41,435 residential wastewater connections in these four areas, representing a population of nearly 154,000 people.⁶

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

Table 1
BASIC PUBLIC SERVICES AND INFRASTRUCTURE IN TIJUANA*

Water System			
Coverage	99.2%		
Supply source	Colorado River, Rodriguez Dam and local wells		
Number of connections	588,150		
Wastewater Collection			
Coverage	90.0%		
Number of connections	533,598		
Wastewater Treatment			
Coverage	96.2% of collected wastewater**		
Treatment facilities	Plant	Type	Capacity
	San Antonio de los Buenos (SAB)	Oxidation ponds	1,100 lps (25 mgd)
	South Bay International	Activated sludge	1,100 lps (25 mgd)
	La Morita	Activated sludge	254 lps (5.8 mgd)
	Arturo Herrera	Activated sludge	460 lps (10.5 mgd)

*Source: CESPT, December 2019.

**The SAB WWTP is currently not in operation, and untreated wastewater discharged to the Pacific Ocean does not comply with the discharge permit. However, a series of studies are under development by the Project Sponsor to determine an appropriate solution for the absence of treatment at this facility.

lps = liters per second; mgd = millions of gallons a day

Local Wastewater System Profile

CESPT operates the water and wastewater systems for Tijuana and Playas de Rosarito, Baja California. Approximately 98% of the water supply for the two communities comes from the Colorado River, and the remaining 2% comes from groundwater wells located in the Tijuana and Playas de Rosarito aquifers or occasionally from the Rodriguez Dam. Surface water from the Colorado River is conveyed through a 125-km (78-mile) aqueduct with a capacity of up to 5.3 cubic meters per second or 120 million gallons a day (mgd), which serves several other communities, including Tecate, before reaching Tijuana and Playas de Rosarito. Raw water is delivered and stored at the El Carrizo Dam, treated at the El Florido Water Treatment Plant and then distributed to the Tijuana and Rosarito urban areas.⁷

The wastewater system currently serves more than 533,000 connections with coverage reaching approximately 90% of households in Tijuana. CESPT operates three major wastewater treatment plants (WWTP): San Antonio de los Buenos (SAB) WWTP, La Morita WWTP and Arturo Herrera WWTP. The South Bay International Wastewater Treatment Plant (SBIWTP), located in the United States and operated by the U.S. Section of the International Boundary and Water Commission

⁶ The estimated population benefitted is calculated based on 3.7 persons per household, as reported by INEGI, and rounded to the nearest 1,000 persons.

⁷ Source: Baja California State Water Commission (CEABC)

(IBWC), treats approximately 1,100 lps (25 mgd) of wastewater from the city of Tijuana. With the addition of other small treatment facilities, the utility has a maximum treatment capacity of more than 3,280 liters per second (lps) or nearly 75 mgd to serve Tijuana. The effluent from all wastewater treatment facilities serving Tijuana is eventually discharged into the Pacific Ocean. In the case of the SAB WWTP, the effluent quality does not comply with the current discharge permit.

CESPT regularly conducts video inspections of its wastewater collection infrastructure and has identified aging and deteriorated wastewater collection lines requiring rehabilitation to prevent failures that could result in wastewater discharges to the Tijuana River. All the wastewater collection lines identified for rehabilitation show evidence of damage, usually in the form of breaks and collapses.

Heavy rainfall during the 2016-2019 winter seasons, along with aged and deteriorated infrastructure in the wastewater collection system, caused several sections of pipeline to collapse spilling untreated wastewater into the Tijuana River, where it eventually flowed into the United States. This situation generated a formal complaint from the U.S. Government. To address this issue, the State of Baja California instructed CESPT to develop a Comprehensive Wastewater Treatment and Reuse Plan with the following objectives: reduce untreated wastewater discharges to the Pacific Ocean, improve the management of treated wastewater discharges to the Tijuana River basin, increase the use of treated water through groundwater replenishment, address sludge disposal, prioritize infrastructure development and establish a financial strategy.

Immediate actions proposed under the plan include improvements to the San Antonio de los Buenos (SAB) WWTP and the rehabilitation of critical sewer mains. CESPT has initiated the development of the feasibility studies for the SAB WWTP and is close to completing rehabilitation of the last segment of the Collector Poniente, which will reduce the risk of discharges to the Tijuana River.⁸ The proposed Project will further support the same objective by rehabilitating the Buena Vista section of the Collector Oriente. CESPT has requested EPA funds for several other projects related to eliminating untreated discharges to the river, two of which are adjacent to the border and are currently under development for certification. In addition, CESPT continues to provide emergency maintenance for collapsed lines but unfortunately the wastewater discharges have been diverted to the Tijuana River and ultimately reach the United States.

The Project will replace 1,346 meters (about 4,416 ft) of a deteriorated section of Collector Oriente, referred to as the Buena Vista Section, which currently conveys an average of about 312 lps (7.1 mgd) of wastewater within the Project area. The Project is needed to protect public health and the environment on both sides of the border by minimizing the risk of line breaks that can cause sewage overflows onto local streets and into the Tijuana River. For these reasons, the Project was prioritized for funding through the U.S.-Mexico Border Water Infrastructure Program of the U.S. Environmental Protection Agency (EPA).

⁸ Rehabilitation of segments 1B, 2 and 3 of Colector Poniente was certified in November 2017, and construction was completed in June 2019. Rehabilitation of segment 1A of Colector Poniente was certified in May 2019, and construction was approximately 84% complete in March 2020.

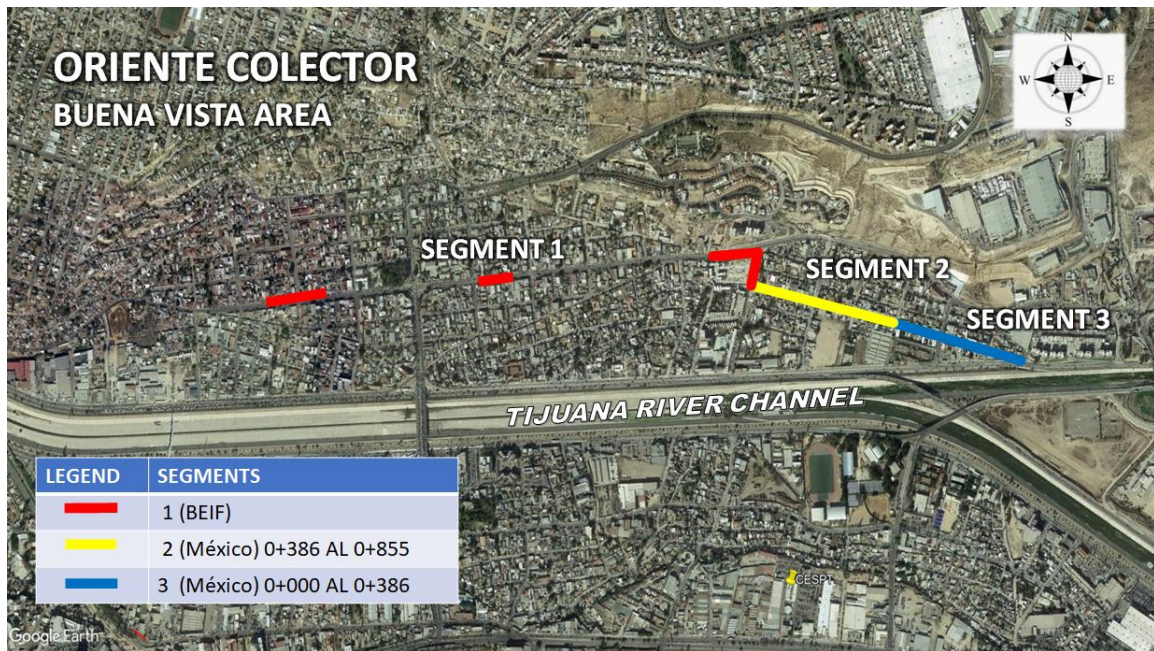
3.1.2. Project Scope

The Project consists of the rehabilitation of approximately 1,346 linear meters (4,416 ft) of the Collector Oriente. The Project has been designed in three segments, as follows:

- Segment 1: 491 meters (1,611 ft) of 42-inch polyvinyl chloride (PVC) pipe;
- Segment 2: 469 meters (1,539 ft) of 42-inch PVC pipe; and
- Segment 3: 386 meters (1,266 ft) of 42-inch PVC pipe.

The general layout of the Project is shown in Figure 2.

Figure 2
LOCATION OF COLLECTOR ORIENTE COMPONENTS



To prevent untreated wastewater discharges from flowing into the Tijuana River during construction, wastewater flows will be pumped to an existing manhole downstream, as needed.

3.1.3. Technical Feasibility

The final designs of the proposed infrastructure works were completed in accordance with the recommendations provided in the Water and Wastewater Manuals developed by the Mexican National Water Commission (CONAGUA) and include green building practices as part of the construction specifications. The final design documents were reviewed by CONAGUA and NADB. The Project received technical validation from the regional offices of CONAGUA in the State of Baja California through official correspondence dated January 31, 2020 (BOO.807.06/057).

During the hydraulic modeling and final design process, technical options for pipe diameter, material and alignment were evaluated. To identify the most appropriate technology, the evaluation considered the following technical factors:

- Proposed layout of the collector and related sub-collectors;
- Constructability;
- Capital cost;
- Operation and maintenance cost;
- Materials 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.

The current condition of the pipeline was assessed through closed-circuit television (CCTV) inspections and incident reports of problems with the lines, such as breaks, leaks or odors. The decision to rehabilitate or replace a segment using an open trench or pipe bursting method was based on the feasibility of each option. Specific factors considered included the condition of the existing line; the location of the line in relation to traffic, buildings and trees; and the presence or absence of scale and/or deflection that could affect the suitability for pipe bursting. Other constructability criteria that were used to screen alternatives or locations included extended closure of major roadways in the city or prohibitive costs.

Pipe diameters were selected using appropriate slopes and velocities to prevent silting, clogging, and septic conditions in the pipes, as well as over-excavation or the need for pumping facilities that could increase both capital and operation and maintenance (O&M) costs. Peak and maximum instantaneous flow rates were taken into consideration to determine the necessary capacity and pipe diameter. The analysis also considered using various pipe materials in compliance with applicable standards and regulations. High-density polyethylene, PVC and asbestos-cement pipes were evaluated, taking into consideration their characteristics and suitability for the soil type in the Project area. While asbestos-cement pipes may have a longer life cycle, PVC is typically more cost-effective and offers more flexibility for septic conditions and the seismic activity common to the area. For the proposed Project, an open-trench process and PVC pipes were selected, which have proven to be reliable and are frequently used in the Tijuana wastewater collection system.

3.1.4. Land Acquisition and Right-of-Way Requirements

All the infrastructure will be installed within existing municipal easements and rights-of-way. No additional land or rights of way acquisition will be required.

3.1.5. Project Milestones

Once the Notice to Proceed is issued for rehabilitation of Collector Oriente, the construction of each procured segment is expected to take approximately 12 months to complete. Potential factors that could affect the Project completion timeline, such as issues with traffic control, weather or the delivery of the materials, were considered in estimating the construction period.

Construction permits will be the responsibility of the contractor and are considered a construction task.

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

Table 2
PROJECT MILESTONES

Key Milestones	Status
Environmental clearance – U.S.	Completed on March 4, 2020
Environmental clearance – Mexico	Completed on April 16, 2020
Final design	Completed on January 31, 2020
Procurement for BEIF grant component	Anticipated in the third quarter of 2020
Construction period with BEIF grant	Estimated period of 12 months

3.1.6. Management and Operation

Management and operation of the proposed Project will be the responsibility of CESPT. Over the past 20 years, CESPT has focused significant investment efforts on expanding wastewater collection infrastructure to eliminate unsanitary conditions related to direct discharges or inadequate on-site disposal practices. Nevertheless, more significant efforts to properly maintain and modernize aged infrastructure are critical.

The utility currently serves 588,150 water hookups and 533,598 wastewater connections in Tijuana. In 2019, the utility treated 2,652 lps (60.5 mgd) of wastewater from the urban area. CESPT is organized in various departments, including: Water Treatment, Wastewater Treatment, Operation and Maintenance, Construction, and Management. The utility has an operation and maintenance (O&M) manual that includes routine tasks to ensure proper operation of the system, as well as procedures to address unexpected conditions, including mobile back-up pumps that are intended to prevent temporary discharges related to aged pipes. Capital investments to extend service or replace deteriorated infrastructure is a priority for CESPT, which has successfully implemented previous projects certified and funded by NADB.

The current demands on CESPT's financial resources to address critical wastewater infrastructure improvements are significant and will require funding with its own resources, loan financing, federal and state grants, and private investment. Recently, CESPT has increased its efforts to improve commercial efficiency and implement cost control measures. Although new revenue sources will not be created by the proposed Project, investments to rehabilitate aged wastewater

infrastructure are expected to result in lower operation and maintenance costs, and those savings can be reinvested for improvements throughout the system.

Additionally, NADB, in coordination with CESPT, carried out a rate study which indicates that rate adjustments are needed to generate sufficient annual revenue to provide adequate cash flows to properly operate and maintain the system, improve or install infrastructure necessary to eliminate untreated discharges, cover debt service, and achieve and maintain the required coverage ratio and reserves. NADB continues to work with all the state utilities to consider appropriate changes to user rates and O&M practices.

As an important sustainable management practice, CESPT has implemented a pretreatment program to control the quality of wastewater discharges from industrial and small business customers into its wastewater collection system, in coordination with the Baja California Ministry of Environmental Protection (SPA). Wastewater quality must comply with Official Mexican Standard NOM-002-SEMARNAT-1996, which regulates the quality of wastewater discharged into municipal wastewater collection systems. The pretreatment program also complies with BEIF program requirements and the covenants established in BEIF grant agreements for projects previously funded in Tijuana.

3.2. Environmental Criteria

3.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

Deteriorated wastewater lines increase the potential for breaks and leaks, resulting in raw sewage spills, which in turn increases the risks of water contamination, exposure to raw sewage and the vulnerability of residents to waterborne diseases.

Waterborne diseases may be caused by protozoan, viruses, bacteria and intestinal parasites. 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 diseases statistics for the city of Tijuana, B.C. for the period 2014-2019.

Table 3
WATERBORNE DISEASE STATISTICS FOR TIJUANA, B.C.

Disease	No. of Cases					
	2014	2015	2016	2017	2018	2019
Intestinal diseases other organisms	64,036	52,397	43,613	94,329	81,605	68,403

Source: Ministry of Health, National Epidemiological Monitoring System (SINAVE), General Morbidity, New Cases in Tijuana.

Due to its proximity to the Tijuana River, wastewater spills onto local streets in the Project area are likely to flow into the river. In 2019 and early 2020, the utility had to address major breaks in the wastewater collection system, which resulted in discharges to the river. At any given time, the river may contain storm water flows, effluent from wastewater treatment plants located in Mexico, “fugitive” untreated wastewater discharges and other unidentified sources, which may impair its water quality. Since the Tijuana River flows from Mexico into the U.S. and empties into the Pacific Ocean through the Tijuana River Estuary, the poor quality of the river flows reaching the ocean in the U.S. may lead to beach closures in San Diego County, California.

B. Project Impacts

Rehabilitation of the Buena Vista section of the Collector Oriente will improve system reliability by preventing leaks and spills and thus significantly reduce the risk of exposure to untreated wastewater and the potential contamination of surface and groundwater. Specifically, the Project is expected to generate environmental and human health benefits related to the following Project outcomes:

- Improve wastewater collection infrastructure for up to 41,435 existing residential wastewater connections, benefitting approximately 154,000 residents.
- Reduce the risk of pipeline failure resulting in untreated or inadequately treated wastewater discharges to the Tijuana River, which would prevent:
 - Approximately 312 liters per second (lps) or 7.1 million gallons per day (mgd) of uncontrolled wastewater discharges.⁹
 - Transboundary wastewater flows to the U.S.

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 a specific focus on energy efficiency and optimal operational performance.

C. Transboundary Impacts

The proposed Project is expected to have an overall positive impact on the Tijuana River, which is a transboundary water body flowing from Mexico into the United States. Implementation of the Project is intended to prevent future breaks and spills from the Collector Oriente, and thus contamination of the river water, which will help protect water resources and the beaches in California.

Moreover, according to the transboundary environmental assessment, no significant negative impacts are expected as a result of Project implementation.

⁹ Source: The flow volume was calculated based on the 41,435 wastewater connections served by the section of the collector to be rehabilitated, with 176 liters (46.5 gallons) of wastewater generated per person a day as indicated by the Government of Baja California in the 2019 Technical Standards for Water and Sanitary Sewer System Projects [*Normas Técnicas para Proyecto de Sistemas de Agua Potable y Alcantarillado – 2019*], and 3.70 persons per household as reported by INEGI.

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-001-CONAGUA-2011, which establishes the 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 levels of contaminants in wastewater discharges to national waters and resources.
- Official Mexican Standard NOM-002-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants in wastewater discharges to urban or municipal wastewater collection systems.

A. Environmental Clearance

Pursuant to state regulations, the Baja California State Sustainable Economy and Tourism Ministry (SEST), through the Sustainable Development Agency, determined that a Preventive Environmental Impact Assessment Report was required.¹⁰ The report was prepared and submitted to SEST on April 13, 2020, and the Project was authorized by SEST through Official Letter No. SEST-SDS-TIJ-1569/2020 issued on April 16, 2020.

Moreover, 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 consideration. The EID presented 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;

¹⁰ In November 2019, the new state government of Baja California established SEST to replace the Ministry of Environmental Protection (SPA).

- Utilities and service systems; and
- Environmental justice.

Based on the findings and conclusions of the EID, EPA Region 9 found that the proposed Project conforms to the category of actions eligible for exclusion from a detailed environmental review and will not involve any extraordinary circumstances. On March 4, 2020, EPA issued a Categorical Exclusion (CATEX), which establishes that the proposed Project will not result in any significant impacts to the environment that may negatively impact the U.S.-Mexico border area, because all construction, including the rehabilitation and/or replacement of existing wastewater lines, will be restricted to previously disturbed urban areas.

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 construction and operation of the Project. As described in the SEST authorization, potential impacts include:

- Wastewater discharges resulting from the rehabilitation of pipelines.
- The local air basin may be temporarily impacted by carbon monoxide, nitrogen oxides 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 particulate matter 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 construction debris, used oil, etc.—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:

- To avoid pollution of the Tijuana River, wastewater discharges resulting from construction shall be pumped to the closest manhole.
- Construction debris resulting from demolition or removal of concrete pipes must be disposed of in the municipal landfill.
- 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 disturbance 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 nesting periods 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 best management practices as described in the official letter from SEST authorizing the Project, 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 SEST and must comply with any water quality requirements, authorization procedures or recommendations that the Ministry 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 US\$1,790,576, which includes construction, supervision, contingencies and taxes. The Sponsor requested a BEIF grant to support implementation of the Project. Based on a thorough analysis of both the Project and the Sponsor, NADB has determined that the Project meets all BEIF program criteria and is recommending that EPA approve a BEIF grant of up to US\$895,129 for its construction. Table 4 presents a breakdown of the sources of funding for the Project.

Table 4
USES AND SOURCES OF FUNDS
 (US\$)

Uses	Amount	%
Construction	\$ 1,593,323	89
Supervision and contingency	197,253	11
TOTAL	\$ 1,790,576	100
Sources	Amount	%
Mexican federal funds	\$ 268,634	15
Mexican state & local funds	626,813	35
NADB-BEIF (EPA grant)	895,129	50
TOTAL	\$ 1,790,576	100

The BEIF grant is expected to support the construction of segment 1 of the Project. In the case of Mexican projects, EPA requires that every grant dollar be matched with funding from other sources. As indicated in the above table, total funding from Mexican sources for this Project is estimated at nearly US\$895,500 and will cover 50% of the project costs.

4. PUBLIC ACCESS TO INFORMATION

4.1. Public Consultation

NADB published the draft certification proposal for a 30-day public comment period beginning June 26, 2020. The following Project documentation is available upon request:

- Final design for Rehabilitation of the Buena Vista Section of Collector Oriente, 2019-2020.
- Preventive Environmental Impact Assessment Authorization No. SEST-SDS-TIJ-1569/2020 issued by the Baja California Sustainable Economy and Tourism Ministry on April 20, 2020.
- Categorical Exclusion issued by EPA on March 4, 2020.
- Technical validation BOO.807.06/057 issued by CONAGUA on January 31, 2020.
- Tijuana Comprehensive Wastewater Treatment and Reuse System Plan developed by CESPT in April 2017.
- Public Participation Report, including public meeting minutes, pictures, articles and related materials.

The 30-day public comment period ended on July 25, 2020, with no comments received.

4.2. Outreach Activities

CESPT conducted extensive outreach efforts to publicize the characteristics of the Project, including costs 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.

The Local Steering Committee was established on February 6, 2020, 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 CESPT disseminate information regarding the Project. The Steering Committee, with assistance from the Project Sponsor, prepared a fact sheet and a PowerPoint presentation about the Project. The Project information was made available to the community at the first public meeting held on March 10, 2020, in the meeting room of the Arturo Herrera Wastewater Treatment Plant in Tijuana, Baja California. Approximately 70 residents attended the meeting. During the meeting, technical

information about the Project was provided. A survey conducted during the event indicated that 100% of the attendees fully supported the Project.

A second public meeting to present the proposed Project and its financial structure was not possible due to public health concerns and protocols prohibiting large gatherings of people. To provide an update to the affected population regarding the Project and its financial impact, CESPT will distribute a fact sheet with the final Project scope, proposed financial structure and implementation timeline to Tijuana residents.

A media search was conducted to gauge public awareness of the Project, as well as to detect any possible opposition from the community concerning the proposed investment. While several articles specifically mention the Project, media attention over the past two years has documented recurring conditions related to untreated discharges to the Tijuana River and transboundary flows affecting the beaches and communities along the coast of Southern California. During the past year, heavy rainfall exacerbated the problems with aged and deteriorated infrastructure in the collection system, such as the Collector Oriente. A summary of some of the articles found is presented below.

- *Noticias Tijuana* (March 10, 2020) “*Consulta pública sobre proceso de certificación de la rehabilitación del colector oriente de la colonia Buena Vista*” [Public consultation regarding the certification process of the Collector Oriente in the Buena Vista subdivision]. The article highlights the project promoted by CESPT for the rehabilitation of the Colonia Buena Vista-Guadalupe Victoria section of the Collector Oriente.
<http://www.tijuanainformativo.info/index.php/noticias-de-tijuana/item/103538-consulta-publica-sobre-proceso-de-certificacion-de-la-rehabilitacion-del-colector-oriente-de-la-colonia-buena-vista?tmpl=component&print=1>
- *Los Angeles Times* (February 12, 2020) “*Newsletter: Solving a problem like the Tijuana River.*” The article highlights the signing of the United States-Mexico-Canada Agreement (USMCA) by the U.S. president last month, and the provision that authorizes hundreds of millions of dollars to be spent tackling cross-border sewage flows from the Tijuana River.
<https://www.latimes.com/california/story/2020-02-11/tijuana-river-california-newsletter>
- *UniRadio Informa* (February 12, 2020) “*Agua residuales de Tijuana afectan territorio de Estados Unidos*” [Wastewater from Tijuana affecting U.S. territory]. U.S. authorities report an increase in wastewater discharges from Tijuana reaching the U.S. and affecting the work of the U.S. Border Patrol, as well as causing environmental problems.
<https://www.uniradioinforma.com/noticias/sandiego/592205/aguas-residuales-de-tijuana-afectan-territorio-de-estados-unidos.html>

- *Fox News* (October 9, 2019) “*Feinstein secures \$20M to prevent Tijuana’s sewage water from reaching US.*” Article announcing that Sen. Dianne Feinstein has secured nearly \$20 million to fund measures to help California prevent millions of gallons of Tijuana’s raw sewage from flowing into San Diego.
<https://www.foxnews.com/politics/dianne-feinstein-secures-20m-tijuana-sewage-water-us>
- *ABC 10 News San Diego (KGTV)* (October 1, 2019) “*Ruptured pipe sends untreated sewage from Mexico into the U.S.*” A broken water line in Tijuana is sending a mix of potable water and untreated sewage across the U.S.-Mexico border.
<https://www.10news.com/news/local-news/south-bay-news/ruptured-pipe-sends-untreated-sewage-from-mexico-into-the-u-s>
- *Coronado Times* (October 1, 2019) “*San Diego Mayoral Delegation Meets with DC Officials Regarding the Tijuana River Valley Sewage Crisis.*” The article reports on a delegation of San Diego mayors and the San Diego Port chairman attending an important meeting in Washington D.C. to discuss the Tijuana River Valley toxic sewage pollution crisis.
<https://coronadotimes.com/news/2019/10/01/san-diego-mayoral-delegation-meets-with-dc-officials-regarding-the-tijuana-river-valley-sewage-crisis/>
- *El Sol de Tijuana* (January 15, 2019) – “*Realiza Cespt obras de reposición para aguas residuales*” [CESPT replaces wastewater infrastructure]. CESPT is carrying out complementary connection works to reinforce wastewater conveyance in the Collector Poniente, which will help prevent mishaps from breaks while 2 km of the pipeline is being completely replaced.
<https://www.elsoldetijuana.com.mx/local/realiza-cespt-obras-de-reposicion-para-aguas-residuales-2927122.html>

The activities carried out by the Project Sponsor and the articles identified above demonstrate that the public has received updates related to the infrastructure problems and need for wastewater collection system improvements. The Project Sponsor informed NADB that no comments expressing concern about the Project were received during the public outreach process, and no opposition to the Project was detected in the media search.

The proposed Project is one of many investment efforts currently under development to resolve uncontrolled discharges to the Tijuana River and will help to address the main concerns identified by residents in the Tijuana-San Diego region.

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 July 25, 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 is expected to be approved by EPA to receive a BEIF grant for up to US\$895,129 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.