



CERTIFICATION PROPOSAL

REHABILITATION OF WASTEWATER COLLECTION MAIN LINES AND RESIDENTIAL WASTEWATER CONNECTIONS TIJUANA, BAJA CALIFORNIA

Revised: November 24, 2014

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EXECUTIVE SUMMARY

REHABILITATION OF WASTEWATER COLLECTION MAIN LINES AND RESIDENTIAL WASTEWATER CONNECTIONS TIJUANA, BAJA CALIFORNIA

Project:	The proposed project consists of the rehabilitation of wastewater collection main lines and the installation of residential wastewater connections in Tijuana, Baja California (the “Project”).
Project Objective:	The purpose of the Project is to increase access and use to basic wastewater services in unserved areas and to eliminate exposure to untreated or inadequately treated wastewater discharges associated with deteriorated wastewater infrastructure, thus contributing to the reduction of pollution and the risk of waterborne diseases.
Expected Project Outcomes:	<p>The Project is expected to generate environmental and human health benefits related to the following Project outcomes:</p> <ul style="list-style-type: none">• Improve wastewater collection and conveyance infrastructure for up to 141,342 existing residential wastewater connections.• Increase use of wastewater collection service for up to 525 new residential wastewater connections.• Eliminate 3.95 liters per second (lps) or 0.09 million gallons a day (MGD) of untreated or inadequately treated wastewater discharges to open drains.¹
Population Benefitted:	524,908 residents of Tijuana, Baja California
Sponsor:	Tijuana, Baja California Municipal Utility, <i>Comisión Estatal de Servicios Públicos de Tijuana</i> (CESPT)
Project Cost:	US\$7,045,723 million dollars (93,105,002 pesos MXN). ²
NADB Grant:	US\$3,002,470 from EPA’s Border Environmental Infrastructure Program (BEIF)

¹ The flow calculation is based on the potential of 525 new wastewater connections. Approximately 3.95 lps (0.09 MGD) based on 176 liters per person per day of WW and 3.70 persons per household (Source: *Normas Técnicas para Proyecto de Sistemas de Agua Potable y Alcantarillado – 2012, Gobierno del Estado de Baja California*).

² Exchange rate of MX\$13.2144 pesos per dollar, based on Banco de Mexico’s FIX exchange rate published in *Diario de la Federación* on September 12, 2014.

**Uses & Sources of
 Funds:
 (U.S. dollars)**

Uses	Amount	%
Construction, contingencies, supervision and taxes	\$7,045,723	100.0
TOTAL	\$7,045,723	100.0
Sources	Amount	%
Mexico (Grant)	\$3,003,842	43.0
NADB-BEIF (Grant)	3,002,470	42.0
NADB (Loan)	1,039,411	15.0
TOTAL	\$7,045,723	100.0

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1. ELIGIBILITY

Project Type

The Project falls within the eligible sector of wastewater.

Project Location

The Project is located in the city of Tijuana in the state of Baja California, which is adjacent to the city of San Diego, California.

Project Sponsor and Legal Authority

The public-sector Project sponsor is Tijuana's water utility, *Comisión Estatal de Servicios Públicos de Tijuana* (CESPT, or the "Sponsor"), a public entity legally constituted by decree No. 44 of the V Legislature of the State of Baja California. The decree published on December 16, 1966, established the creation of a public entity (CESPT) independent of the state, with legal authority and assets, whose purpose was to provide water and wastewater collection and treatment services to the cities of Tijuana and Playas de Rosarito.

2. CERTIFICATION CRITERIA

2.1 TECHNICAL CRITERIA

2.1.1. Project Description

Geographic Location

The city of Tijuana is located in the northwest region of the state of Baja California and borders with the City of San Diego, California. Figure 1 shows the location of Tijuana.

Figure 1
PROJECT LOCATION MAP



General Community Profile

According to the INEGI 2010 census, the municipality of Tijuana has a population of 1,559,683, which represents 50% of the total population of the state with an average annual growth rate of 2.6% in the past ten years. Current estimates have the city's population at 1,696,430 residents.³

The municipality's economic activities are based primarily on manufacturing, commerce and tourism. And according to the 2010 Census (INEGI), the economically active population is estimated to be 696,906 inhabitants.

The status of public services in Tijuana is described in Table 1.

³ Consejo Nacional de Población (CONAPO), projected population 2010-2030.

Table 1
BASIC PUBLIC SERVICES AND INFRASTRUCTURE

Water System*			
Coverage:	98.7%		
Supply source:	Colorado River, Rodriguez Dam and Local Wells		
Number of connections:	525,385		
Wastewater Collection*			
Coverage:	90%		
Number of connections:	479,939		
Wastewater Treatment*			
Coverage:	99.7%		
Treatment facilities:	Plant	Type	Capacity
	San Antonio de los Buenos	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)
Solid Waste**			
Collection coverage	100%		
Final disposal	Municipal landfill		
Street Paving***			
Street paving coverage	71.3%		

* Source: CESPT, December 2013.

** Source: <http://www.tijuana.gob.mx/PlanMpal2011-2013/servicios.asp>.

*** Source: Plan municipal de desarrollo 2014-2016 de Tijuana. <http://www.tijuana.gob.mx/pmd/index2.aspx>.

Local Wastewater System

CESPT operates the water and wastewater systems for Tijuana and Playas de Rosarito. The wastewater system infrastructure currently serves nearly 480,000 connections with coverage reaching approximately 90% of the municipalities' households. Areas without service utilize cesspools and latrines for on-site wastewater disposal. CESPT also operates four existing wastewater treatment plants: the San Antonio de los Buenos WWTP, the South Bay International Wastewater Treatment Plant (SBIWTP), the La Morita WWTP, and the Arturo Herrera WWTP with final discharge to the Pacific Ocean. The Project will replace 32,914 linear feet (10,032 meters) of deteriorated sanitary sewer collection main lines and it is estimated that 100% of the WW flows collected are treated in one of these WW treatment facilities.

CESPT regularly inspects its older wastewater collection mains at manholes with a camera and have identified aged and deteriorated wastewater collection lines requiring major rehabilitation investments to prevent consequences for the environment of Tijuana, including damages to the Tijuana River. Further, the Project is needed to protect public health by minimizing and

eliminating pipe ruptures that can cause untreated sewage to flow onto local streets in the area. The Project will address the following existing conditions:

- Deteriorated condition of existing major sewer collector lines;
- Public health and water quality concerns related to discharge of raw sewage to streets;
- Public safety concerns related to failure and potential collapse of major sewer collectors and manholes;

All of the collection lines identified for rehabilitation have shown evidence of damage, often in the form of leaks and collapses. Manholes that are spaced too far apart also result in inadequate line maintenance, which causes odors and concrete deterioration from hydrogen sulfide (H₂S) gas.

In addition to the rehabilitation efforts proposed by this Project, CESPT has proposed to complete residential wastewater connections related to collection system infrastructure previously built within the Tijuana River Basin. The Project will add 525 new residential connections to the 1,775 connections already completed for the areas of Maclovio Rojas, Ojo de Agua and Lomas del Valle, completed in 2010. Approximately 3.95 lps (0.09 MGD) of WW generated in the Project area will be collected and treated at La Morita WWTP which currently has an influent flow of 168 lps (3.8 MGD) and has an available capacity of 88 lps (2.0 MGD) to treat the additional flows generated by the Project.

Project Scope and Design

The Project consists of the rehabilitation of main WWC lines and the installation of residential wastewater connections, as follows:

- Industrial Collector: 730 m (2,395 ft.) of 76 cm (30") diameter HDPE pipe.
- Las Américas Collector:
 - Colonia 20 de Noviembre
 - 255 m (837 ft.) of 20 cm (8") diameter PVC pipe
 - Colonia Buena Vista:
 - 319 m (1,048 ft.) of 20 cm (8") diameter PVC pipe.
 - 623 m (2,044 ft.) of 25 cm (10") diameter HDPE pipe.
 - 112 m (367 ft.) of 36 cm (14") diameter HDPE pipe.
 - Colonia Lomas de Agua Caliente:
 - 35 m (115 ft.) of 20 cm (8") diameter PVC pipe.
 - 823 m (2,700 ft.) of 20 cm (8") diameter HDPE pipe.
 - 172 m (564 ft.) of 46 cm (18") diameter HDPE pipe.
- Techite Collector or Líneas Gemelas: Construction of 39 manholes.

- INV Collector or Artículo 123:
 - 1,024 m (3,360 ft.) of 46 cm (18") diameter HDPE pipe.
 - 55 m (180 ft.) of 20 cm (8") diameter PVC pipe.
 - 133 m (436 ft.) of 25 cm (10") diameter PVC pipe.
 - 212 m (695 ft.) of 30 cm (12") diameter PVC pipe.

- Sanchez Taboada Collector:
 - Alignment change in pipeline between Ave. Negrete and Zona Centro:
 - 93 m (306 ft.) of 20 cm (8") diameter PVC pipe.
 - 25 m (82 ft.) of 46 cm (18") diameter PVC pipe.
 - 5 m (16 ft.) of 53 cm (21") diameter PVC pipe.
 - 252 m (827 ft.) of 107 cm (42") diameter HDPE pipe.

 - Rehabilitation in Sanchez Taboada Boulevard:
 - 493 m (1,617 ft.) of 20 cm (8") diameter PVC pipe.
 - 179 m (587 ft.) of 30 cm (12") diameter PVC pipe.
 - 118 m (387 ft.) of 53 cm (21") diameter PVC pipe.
 - 17 m (56 ft.) of 61 cm (24") diameter PVC pipe.
 - 880 m (2,887 ft.) of 91 cm (36") diameter PVC pipe.
 - 2,877 m (9,439 ft.) of 107 cm (42") diameter PVC pipe.
 - 232 m (761 ft.) of 30 cm (12") diameter HDPE pipe.
 - 52 m (171 ft.) of 46 cm (18") diameter HDPE pipe.
 - 316 m (1,037 ft.) of 51 cm (20") diameter HDPE pipe.

- Residential Connections: 525 residential connections
 - 417 connections in the Maclovio Rojas area.
 - 84 connections in the Ojo de Agua area.
 - 24 connections in the Lomas del Valle area.

The Project will benefit just over 524,900 residents with the vast majority benefited by the rehabilitation project and nearly 2,000 residents directly benefitted from new WW connections. Figure 2 shows the location of the Main Lines Rehabilitation components of the Project in Tijuana, Baja California.

Figure 2
LOCATION OF REHABILITATION COMPONENTS



Figure 3 shows the location of the Project areas of Maclovio Rojas, Ojo de Agua and Lomas de Valle in Tijuana, where new WW connections will be installed.

Figure 3
DOMESTIC CONNECTIONS

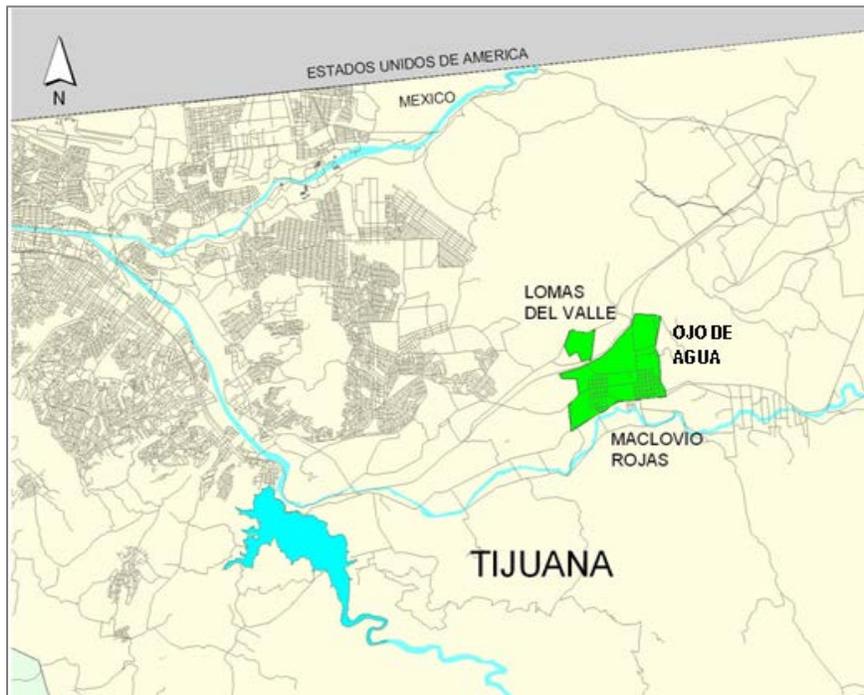


Table 2 shows the proposed schedule for Project implementation milestones.

Table 2
PROJECT MILESTONES

Key Milestones	Status
Procurement	Anticipated: 1 st quarter 2015
Construction Period	Eighteen months from construction initiation

2.1.2. Technical Feasibility

Design Criteria

The final design of the proposed works was completed in accordance with the technical specifications of the Water, Wastewater Collection, and Treatment Manual developed by the Mexican federal water agency, CONAGUA. CONAGUA issued technical validations for the Project through official correspondence BOO.00.R02.05.1-083/240, October 17, 2013; BOO.00.R02.05.1-085/242, October 18, 2013 and BOO.00.R02.05.1-048/169, June 4, 2014.

Selected Technology

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

- Proposed layout of the sewer lines
- Required connection points for the system components
- Investment cost
- Operation and maintenance cost
- Materials and equipment reliability
- Sustainable practices

In the case of the rehabilitation component, potential collector lines were assessed based on closed circuit television (CCTV) inspections and incidental reports of problems with the lines such as collapses, leaks, or odors. The determination to rehabilitate or replace a particular facility was based on the feasibility of each option. Specific factors taken into account 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.

Rehabilitation or replacement using open cut construction or the pipe bursting method was selected based on constructability. The condition of the existing line was taken into account, including the presence or absence of scale and/or deflection that could affect the suitability for introduction of a new pipe into the existing pipe. On the ground, traffic conditions, buildings, and trees were considered in determining feasibility of parallel line replacement. Other constructability criteria that were used to screen alternatives or locations included those that

would require extended closures of the City's most important roads or that would be prohibitively expensive.

The pipe diameters were selected using appropriate slopes and velocities to prevent pipe silting and clogging, septic conditions, over-excavation or the need for pumping facilities that could increase project costs. Peak flow rates and maximum instantaneous flow rates were taken into consideration in order to avoid overflows. 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, and their characteristics and suitability for the soil type were reviewed. For the proposed Project, PVC and HDPE were the selected materials, which have proven to be reliable.

2.1.3. Land Acquisition and Right-of-way Requirements

All the construction tasks of the proposed Project will take place within existing municipal rights-of-way. No additional land or rights-of-way acquisition will be required.

CESPT will obtain the necessary easements to implement residential connections.

2.1.4. Management and Operations

Management, construction, and operation of the proposed Project will be the responsibility of the Project Sponsor, CESPT. The utility has demonstrated that the necessary resources and staff are available for these purposes including procurement and construction supervision during Project implementation. CESPT has successfully completed several projects in coordination with BECC and NADB as well as with funding program sources such as US EPA and CONAGUA.

CESPT has an O&M manual that includes the primary tasks necessary to ensure proper operation of the new infrastructure. The utility serves 525,385 water hookups and 479,939 wastewater connections, and provides treatment to approximately 2,442 liters per second (55.7 MGD) of wastewater.

The Project sponsor has a pretreatment program to control industry and small businesses discharges in coordination with the Secretariat of Environmental Protection (SPA). The pretreatment program complies with the BEIF program requirements.

2.2 ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

The Project is subject to an environmental clearance authorization in accordance with the Regulations of the state of Baja California and the General Law on Ecological Balance and

Environmental Protection regarding Environmental Impact Assessment, as determined through the SPA. Additionally, to be able to receive grant funds from the Border Environment Infrastructure Fund (BEIF), supported by federal appropriations to the U.S.-Mexico Border Water Infrastructure Program of the U.S. Environmental Protection Agency (EPA), the Project requires that the transboundary impacts be examined in compliance with the U.S. National Environmental Policy Act (NEPA).

In addition the Project complies with the 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.

Environmental Studies and Compliance Activities

Pursuant to the regulations of the SPA, through official letter No. SPA-TIJ-3513/13, it was determined that the environmental impact assessment (MIA) was required. The report was prepared and submitted to the SPA on May 2, 2014 and the project was authorized by SPA through official document SPA-TIJ-1969/14 4.3.063-MIA/14 issued on July 25, 2014.

In accordance with the NEPA process, EPA finalized a Supplemental Environmental Assessment (SEA) of the Effect on San Diego, California by the proposed construction of the Project and issued a public notice reaffirming that no significant impacts to the environment would result from the implementation of rehabilitation of the wastewater collection main lines and residential connections in Tijuana, Baja California. The comment period for the public notice closed without comments and a Finding of No Significant Impact (FONSI) was issued on March 14, 2014 for the rehabilitation component. And a reaffirmation of the FONSI for the connection component was issued on September 16, 2014.

Since the Project will be implemented in already disturbed areas, the consultation with the National Anthropology and History Institute (INAH) is not required. No cultural or historical resources are expected to be disturbed

Pending Environmental Tasks and Authorizations

There are no formal environmental authorizations pending.

Compliance Documentation

The following formal authorizations have been obtained for the Project:

- Official letter No. SPA-TIJ-1969/14 4.3.063-MIA/14
- FONSI issued by EPA on March 14, 2014
- FONSI reaffirmation issued by EPA on September 16, 2014

2.2.2. Environmental Effects/Impacts

Existing Conditions and Project Impact – Environment

Wastewater overflows reported in the Project area resulted in a potential exposure to untreated discharges and a risk to the environment as a potential source of groundwater contamination in Mexico and the US through the Tijuana River. The Project will implement reliable infrastructure to convey the untreated WW to the South Bay International Wastewater Treatment Plant (SBIWTP) and to San Antonio de los Buenos Wastewater Treatment Plant (SABWTP).

In addition, irregular settlements grew in the outskirts of city of Tijuana and currently have limited access to wastewater services. Thus, untreated WW is disposed into cesspools and latrines, which increases the risk of waterborne diseases and contaminate superficial and underground water bodies. The Project will implement new connections and convey the corresponding WW to the SBIWTP and SABWTP. The Project is expected to generate the following environmental and human health benefits:

- Improve wastewater collection and conveyance infrastructure for up to 141,342 existing residential wastewater connections.
- Increase use of wastewater collection service for up to 525 new residential wastewater connections.
- Eliminate the risk untreated or inadequately treated wastewater discharges to open drains, which could be as much as 3.95 liters per second (lps) or 0.09 million gallons a day (MGD).

The environmental impact resulting from Project implementation will be positive overall, given that it will prevent possible groundwater contamination and increase the reliability of wastewater collection service.

Mitigation of Risks

Only minor environmental impacts are anticipated during construction of the Project, provided that the tasks are implemented in accordance with best management practices. Potential impacts may be present during the construction phase and include the following:

- Emission of dust particles;
- Combustion gas emissions from construction machinery; and
- Temporary roadway blockages and the presence of workers in the area.

Typical mitigation measures to be practiced include:

- Application of water to reduce the emission of dust particles;
- Vehicle tune-ups to reduce emissions; and
- Placement of warning signs to prevent potentially hazardous situations.

Natural Resource Conservation

The Final Design includes the implementation of green building practices as part of the technical construction specifications, with a special focus in energy efficiency and optimal operational performance. The Project contributes to reduce environmental deterioration by installing new wastewater collection lines and providing the necessary means to collect and convey these flows to the existing WWT plants. Also, the Project contributes to the protection of natural resources by reducing the risks of soil and water contamination.

No Action Alternative

The no-action alternative was not considered viable since failing to expand the collection system would result in possible groundwater contamination and a significant health risks for residents. If no work is performed, the lines or manholes could collapse, which could cause certain streets to sink or break.

Existing Conditions and Project Impact – Health

The deteriorated wastewater main lines are experiencing frequent collapses. This results in discharge of untreated wastewater and a potential exposure and environmental risk from infiltration in the existing groundwater resources and nearby storm water system, eventually crossing into the US through the Tijuana River.

Project implementation of new connection is expected to eliminate the use of latrines, septic tanks, and discharges to open drains and surface water contributing to the reduction of risks for exposure to untreated discharges and a reduction in the number of cases of waterborne diseases in the unserved areas.

Waterborne diseases are caused by pathogenic microorganisms that are directly transmitted as a result of inadequate wastewater disposal practices and unsafe water supplies. 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 statistics diseases for the city of Tijuana, BC for the period 2008-2013.

Table 3
WATERBORNE DISEASE STATISTICS FOR TIJUANA, B.C. 2008-2013

No. of Cases						
Disease	2008	2009	2010	2011	2012	2013
Intestinal diseases other organisms	34354	33966	34312	40080	45774	47047
Other Helmintiases	1679	1586	1802	2082	2434	2017
Intestinal Amoebiasis	1179	1178	1006	1042	798	860
Scabiosis	1105	840	938	1463	1664	1675

Source: Secretariat of Health, Epidemiological Surveillance Coordinating Unit, General Morbidity, New Cases. Tijuana

There is a risk of exposure to untreated wastewater, which increases the vulnerability of area residents to waterborne diseases. The infrastructure improvements to be implemented under this Project will reduce this risk and thus prevent potential health threats. According to the World Health Organization (WHO), access to safe water and sanitation facilities, as well as better hygiene practices, can reduce ascariasis-related morbidity by 29% and diarrhea-related morbidity by 32%.

Transboundary Effects

Due to the proximity of Tijuana with various communities in San Diego County, there are frequent border crossings between cities. The installation of wastewater connections in currently unserved areas as well as the improvements to the wastewater collection main lines will have a positive impact on the health of residents of cities such as San Ysidro and San Diego, California and the entire region, since the Project will help reduce the risk of waterborne diseases caused by aging/collapsing infrastructure and the lack of sewer connections.

Additionally, the implementation of the proposed Project will reduce the potential for contamination of local shared water bodies, such as the Tijuana River and eventually, the Pacific Ocean. According to the transboundary environmental assessment, significant impacts are not expected as a result of the Project implementation.

2.3. FINANCIAL CRITERIA

The total estimated cost of the Project is US\$7,045,723 which includes the funding for construction, supervision, contingencies and taxes. The Project meets all BEIF program criteria. EPA has approved a BEIF grant of up to US\$3,002,470 for the rehabilitation of the wastewater collection main lines and the new residential connections of the Project. The Project will include a portion of a previously Board approved BECC/NADB loan of up to \$380 million pesos which was certified on July 21, 2009. The remaining loan funds to be disbursed are approximately \$86 million pesos (approximately \$6.6 million USD).

Table 4 presents a breakdown of total Project costs, as well as the sources of funds.

Table 4
USES AND SOURCES OF FUNDS
 (U.S. Dollars)

Uses	Amount	%
Construction: including contingencies, supervision, and taxes.	\$7,045,723	100.0
TOTAL	\$7,045,723	100.0
Sources	Amount	%
Mexico (grant)	\$3,003,842	43.0
NADB-BEIF	3,002,470	42.0
NADB-Loan	1,039,411	15.0
TOTAL	\$7,045,723	100.0

3. PUBLIC ACCESS TO INFORMATION

3.1 PUBLIC CONSULTATION

BECC released the Draft Project Certification Proposal for a 30-day public comment period beginning October 24, 2014. The following Project documentation is available upon request:

- Final Design, Rehabilitation of the Wastewater Collection Main Lines, 2013-2014
- Final Design, New wastewater connections in Maclovio Rojas, Ojo de Agua and Lomas del Valle.
- Official letter No. SPA-TIJ-1969/14 4.3.063-MIA/14
- FONSI for wastewater main lines rehabilitation issued by EPA on March 14, 2014.
- FONSI reaffirmation for the connections component issued by EPA on September 16, 2014
- CONAGUA technical validations: BOO.00.R02.05.1-083/240, October 17, 2013; BOO.00.R02.05.1-085/242, October 18, 2013 and BOO.00.R02.05.1-048/169, June 4, 2014.

The 30-day public comment period ended on November 23, 2014, with no comments received.

3.2. OUTREACH ACTIVITIES

In accordance with the standard operating procedures for the PDAP/BEIF grant program, a broad public outreach effort was conducted for the Project, including activities such as the use of a local steering committee, meetings with local organizations, surveys, and public meetings. Below is a summary of the outreach activities carried out for the Project.

The Local Steering Committee was formally created on December 16, 2013, at a meeting held at CESPT general offices. At this meeting the Board of Directors for the committee was selected.

The steering committee convenes periodically to help the Project sponsor disseminate information regarding water and wastewater infrastructure works. The committee includes members of civil engineering and economic development associations, as well as city council members. In addition, residents from the benefited areas participate directly with this group as the Project gets closer to being implemented in their specific communities. The Comprehensive Community Participation Plan developed by the Local Steering Committee was approved by the BECC on December 19, 2013.

The Project's technical and financial information has been made available to the public for review. The Steering Committee, with assistance from the Project sponsor, prepared a fact sheet and a power point presentation for the Project. Additionally, a survey was disseminated to document the community's concerns or support for the Project.

Project information was presented to the community at two public meetings:

- *First Public Meeting*. The First Public Meeting was published in the local newspaper “Frontera de Tijuana” on December 19, 2013, and was held on January 31, 2014 at the meeting room of the Arturo Herrera Wastewater Treatment Plant in the city of Tijuana, Baja California. The meeting was attended by more than 70 local residents who answered a Project survey. Of these, 100 % said they were able to fully understand the Project and explicitly expressed their support.
- *Second Public Meeting*. A second public meeting was held on October 13, 2014 at the meeting room of the Arturo Herrera Wastewater Treatment Plant in the city of Tijuana, Baja California. During the meeting, the community was informed of the Project’s financial components. The meeting was attended by 75 residents. The Project survey received responses from 100 % of the attendees with full support for the Project.

The steering committee carried out several meeting with social and professional organization to provide project information. Activities conducted by the Project sponsor and Steering Committee demonstrate that the public outreach requirements for the funding programs have been met.

BECC conducted a media search to identify potential public opinion about the Project. No articles related to the project were identified and no opposition to the Project was detected in the media search.

ANNEXES

REHABILITATION OF WASTEWATER COLLECTION MAIN LINES AND RESIDENTIAL WASTEWATER CONNECTIONS TIJUANA, BAJA CALIFORNIA

ANNEX A RESULTS MATRIX

REHABILITATION OF WASTEWATER COLLECTION MAIN LINES AND RESIDENTIAL WASTEWATER CONNECTIONS TIJUANA, BAJA CALIFORNIA

Project Objective:			
The purpose of the Project is to increase access to basic wastewater services in unserved areas and to eliminate exposure to untreated or inadequately treated wastewater discharges associated with deteriorated wastewater infrastructure, thus contributing to the reduction of pollution and the risk of waterborne diseases.			
Results Measurement	Indicators and Targets	Baseline Value	Measurement Methodology
Outcomes: Access to, use of, and satisfaction with goods and services provided, building evidence of the achievement of the project objective. These should be directly attributable to the project and should describe an improvement in existing conditions related, whenever possible, to environmental and human health, financial, and sustainable development.			
1 Increase access and use of wastewater collection services	Increase use of wastewater collection service (Target = up to 525 new residential ww connections)	[2014] 479,939 existing residential ww connections	Reviewed by BECC/NADB during project closeout process. Measurement supported by available information provided by project sponsor.
2 Eliminate untreated or inadequately treated wastewater discharges. (Protection of natural resources)	Reduce uncollected wastewater discharges related to 525 new connections (Target = 90,325 GPD) Improve wastewater collection and conveyance service (Target = 141,342 existing residential ww connections) *The capacity at the La Morita WWTP is 5.8 MGD with current flows of 3.8 MGD.	90,325 GPD based on design assumption of 46.5 gpcc 479,939 existing residential ww connections	Reviewed by BECC/NADB during project closeout process. Measurement supported by available information provided by project sponsor.
3 Improved financial self-sustainability	Sufficiency of annual revenues to provide adequate cashflow to properly operate and maintain the system and maintain reserve requirements (Target Net Cash Flow > = US\$0) Maintain appropriate reserve levels for O&M and repair and replacement (Target >=MX\$1,023,953)	NA NA	Reviewed by NADB on an annual basis, during the BEIF project with the financial statements report. Reviewed by NADB on an annual basis, during the BEIF time period with the bank account statement of each reserve.
4 Strengthen institutional capacity	Full compliance with all applicable laws, rules and regulations	Out of Compliance	Reviewed by BECC at project closeout. Measurement supported by available information by project sponsor of regulatory compliance.
Outputs: Goods and services that the project will deliver			
<p>Technical*: Domestic wastewater connection (eligible) up to 525 new connections Wastewater collection main lines approximately 32,914 linear ft *subject to construction implementation results</p> <p>Financial: Annual reserves account balance statement MX\$1,023,953 Utility annual financial statement Net Cash Flow ≥ MX\$0</p>			

Implementation			
Inputs and Activities:			
Technical:			
<i>NADB Implementation Activities</i>			
Procurement process	March - June 2015		
Construction	Eighteen Months from notice to proceed		
Project Financial close-out	One-year after construction completion		
Project close-out	One-year after construction completion		
Financial:			
Inputs			
NADB-BEIF construction assistance	Main collectors rehabilitation	\$ 6,464,798	
	Residential WW connections	<u>580,925</u>	
		\$ 7,045,723	Dollars
Activities			
Execution of grant agreement			
NADB/CESPT			
Compliance with disbursement conditions			
NADB Auditing - covenants compliance review			
Public Participation:			
Outreach activities - construction updates; education / awareness			