Border Environment Cooperation Commission
Expansion of the Wastewater Collection System for the Unserved Area Ampliacion Lucio Blanco (Phase II)
Playas de Rosarito, BC

1. General Criteria

1.a Project Type

Project Name:	Expansion of the wastewater collection system for the unserved area Ampliacion Lucio Blanco (Phase II) in Playas de Rosarito, Baja California.
Project Sector:	Domestic Water and Wastewater Hookups

1.b Project Category

Category:	Community Environmental Infrastructure Project – Community-wide impact.

1.c Project Location and Community Profile

Community:	Municipality of Playas de Rosarito, Baja California, Mexico.
Location:	The project is located in the municipality of Playas de Rosarito, in the northwestern area of the State of Baja California, Mexico, approximately 20 km (12.5 miles) south of the US-Mexico border, adjacent to the Pacific Ocean. Playas de Rosarito is bordered by Tijuana to the north and east, Ensenada to the south and the Pacific Ocean to the west.
Location within the Border:	The project is located within the 100 km (62.5 mi) of the US-Mexico border area. The project area, named Ampliacion Lucio Blanco (Phase II), is located approximately 18 km (11.5 miles) south of the U.S-Mexico International Border in Playas de Rosarito, Baja California. Approximately at the following coordinates 32°22'34.45"N latitude and 117° 2'27.90"W longitude. The following figure shows the location of the municipality of Playas de Rosarito, Baja California.

Figure 1.1 Playas de Rosarito, Baja California, México.

Demographics	
Current Population:	90,668 residents
Growth Rate:	4 %
Reference:	INEGI[1] year: 2010
Economically Active Population:	38,424 residents
Reference:	INEGI year: 2010
Median per Capita Income:	$ 13,031 Dollars PPP
References:	The median per capita income was estimated by BECC using the XII General Population and Housing Census of 2000 by INEGI based on the ONU guidelines for the human development index.
Economic Activity:	Manufacturing industry, tourism, trade, and services
Marginalization Rate:	-1.90, Very low
Services	
Community:	Playas de Rosarito
Water System	
Water coverage[2]:	87%
Water supply source:	Colorado River, Abelardo Rodriguez Dam, and wells

[1] Mexico's National Institute of Statistics and Geography
[2] Source: CEA BC, June 2011

Number of hookups[3]: 30,580

Wastewater Collection System

Coverage[4]: 59 %

Number of connections:[5] 21,151

Wastewater Treatment

Coverage: 99%

Wastewater treatment plant (WWTP) and treatment technologies:

Plant	Type	Capacity
Rosarito Norte	Activated sludge	210 lps (4.8 MGD)
Rosarito I	"	60 lps (1.36 MGD)

Approximately 60% of the wastewater generated by Playas de Rosarito is collected by the existing sewer system and conveyed by gravity and lift stations to the Rosarito Norte and Rosarito I WWTPs which have capacities of 210 and 60 lps (4.8 and 1.36 MGD), respectively. Both plants discharge into the Pacific Ocean; Rosarito Norte via the Reforma creek, and Rosarito I via the Huahuatay creek through the Ocean Outfall. Currently, there is a project to expand the capacity of the Rosarito I WWTP to support new areas that are being connected to the wastewater collection system.

Solid Waste

Solid waste collection : 100%

Final disposal: Landfill

Street Paving

Street paving coverage: 67%

1.d Legal Authority

Project Sponsor: Comisión Estatal de Servicios Públicos de Tijuana (CESPT)

Legal Representative: Hernando Durán Cabrera

Legal Instrument: Decree No. 44, V Legislature of the State of Baja California

Date of Instrument: December 16, 1966

Compliance With Agreements:

- 1889 International Boundary Convention
- 1944 Water Treaty
- 1983 La Paz Agreement, or Border Environment

[3] Idem
[4] Idem
[5] Idem

	Agreement - 1990 Integrated Border Environmental Plan (IBEP) - 1994 North American Free Trade Agreement (NAFTA) - Border 2012 Program - Minute 283 (CILA/IBWC)

1.e. Project Summary

Project Description and Scope:	The project consists of the construction of wastewater collection infrastructure for the unserved areas Ampliación Lucio Blanco (Phase II) in Playas de Rosarito, Baja California. **<u>Wastewater Collection</u>** - Construction of sewer lines and sub-collectors Installation of approximately 8,743 meters (28,684 ft) of 8 inches diameter PVC pipelines, installation of 686 meters (2,251ft) of PVC pipelines of 12 inches diameter and installation of 301 meters (988 ft) of 15 inches pipeline. Installation of 5,490 m 6" pipeline to provide access for 915 household connections. Estimated wastewater to be generated in the project area (approximately 7.6 lps or 0.17 MGD) will be treated at the Rosarito I wastewater treatment plant that is being expanded to increase its treatment capacity. Treated effluent will be discharged into the Arroyo Huahuatay where the effluent is conveyed to the Pacific Ocean for final disposal through an ocean outfall which is located approximately 22 km (13.75 miles) south of the international border. The 150 lps (3.4 MGD) outfall has enough capacity to receive the flows from the treatment plant.
Population Served:	3,752 residents
Number of Connections Available:	915 households (BEIF-eligible build-out)
Project Cost:	US$ 1,725,512
Project Map:	Figure 1.2 shows the location of the unserved Ampliación Lucio Blanco in the municipality of Playas de Rosarito.

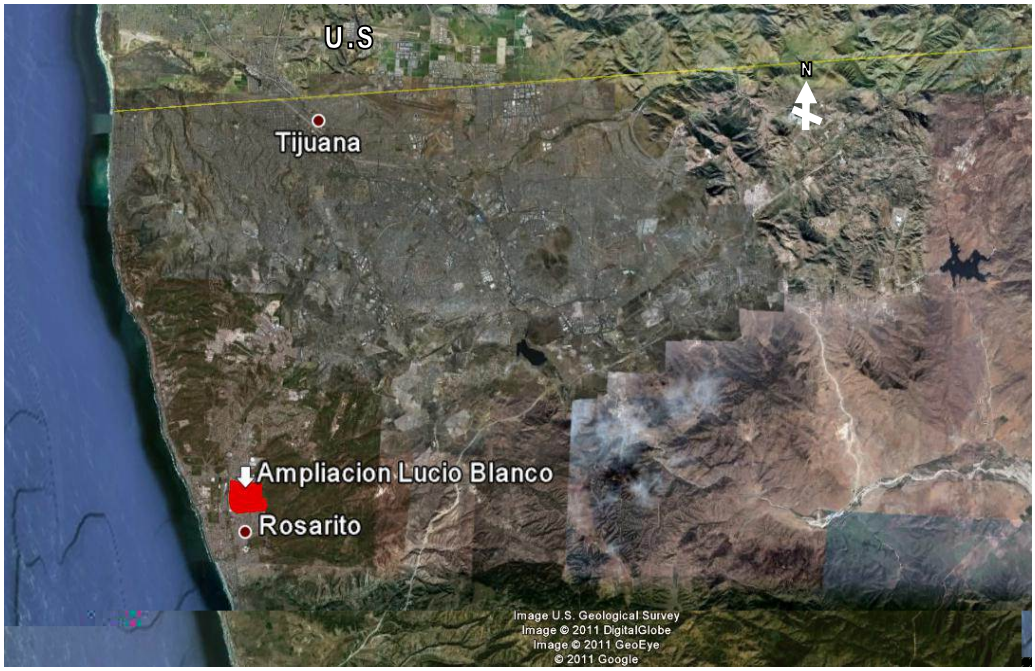

Figure 1.2 Ampliación Lucio Blanco in Playas de Rosarito, BC.

1.f Project Justification

Project Justification:

- Residents from the project area have already drinking water service and currently lack wastewater collection services therefore rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal. The implementation of the proposed project will provide access to appropriate wastewater collection and treatment services to approximately 3,752 residents. This action will reduce human contact with contaminated water as well as with vectors of waterborne diseases.

- The municipality of Playas de Rosarito has an estimated 40% wastewater collection deficiency. The project implementation will help reduce the backlog by installing infrastructure to support access to service for approximately 915 new sewer connections.

- Approximately 7.6 lps (0.17 MGD) of the wastewater flow anticipated to be generated in the project area will receive treatment prior to being discharged into the Pacific Ocean. By eliminating the use of latrines, septic tanks, and open drains, the proposed project will contribute to reduce the potential for groundwater and surface water contamination resulting from the inappropriate discharge of untreated wastewater.

Urgency of the Project or Consequences of No Action:

- The lack of this service jeopardizes the health of residents in the project area, since they are exposed to having contact with untreated wastewater and thus are at risk of acquiring

	associated diseases. According to morbidity statistics for Playas de Rosarito (see Table 2.1) intestinal diseases show the highest incidence among all types of diseases. - The inappropriate discharge of untreated wastewater in the project area results in wastewater runoff, a portion of which eventually reaches the Pacific Ocean, contributing to water contamination.
Prioritization Process category:	Category 1

Pending Issues:

None.

Criterion Summary:

The project falls within BECC priority sectors and meets basic general criteria.

2. Human Health and Environment

2.a Compliance with Applicable Environmental Laws and Regulations.

Environmental and Human Health Conditions Addressed by the Proposed Project:

- Appropriate wastewater collection and treatment. Residents in the project area currently lack wastewater collection service and discharge their wastewater to open drains or rely on latrines, septic tanks and cesspools.

- Reduce the risk for communicable waterborne diseases caused by human contact with raw wastewater runoff resulted from the lack of wastewater collection in the project area.

- Reduce soil and surface water contamination, since it has been estimated that a portion of the runoff resulting from inappropriate wastewater discharges in the project area will eventually discharge to the Pacific Ocean.

Human Health

As shown in the health statistics section below, there are an important number of cases per year of waterborne diseases in Playas de Rosarito, where the project area is located. The statistics registered a number of cases of intestinal diseases, helmintiasis, amebiasis, and scabiosis. It is expected that the project implementation will contribute to reduce the number of cases of the waterborne diseases mentioned above.

Environmental

Residents of the project area currently lack wastewater collection services and rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal.

Wastewater discharges in the project area, due to a lack of wastewater collection, is a potential source of disease-causing organisms and soil, surface and groundwater contamination.

The inappropriate disposal of untreated wastewater in the projects area results in wastewater runoff, a portion of which eventually reaches the Pacific Ocean, contributing to its contamination.

The environmental conditions addressed by the project are:

- Residential lots without access to wastewater collection: 915 (748 existing water accounts)
- Anticipated flow of uncollected wastewater discharges: 7.6 lps (0.17 MGD)

The Project Meets the Following Applicable Environmental Laws and Regulations:	- Discharges from the WWTP comply with the Official Mexican Standard NOM-001-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into national waters and territories. - The sewer system considered compliance with Official Mexican Standard NOM-002-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges to urban or municipal wastewater collection systems. - Discharges from the WWTP will comply with the Official Mexican Standard NOM-003-SEMARNAT-1997, which establishes the maximum permissible levels of contaminants for reclaimed water use for non-potable uses.
Environmental and human health benefits the project is expected to achieve:	
Human Health	According to the "World Health Organization Water, Sanitation and Hygiene Links to Health FACTS AND FIGURES – *updated November 2004", sanitation projects can have the following benefits to human health: - Improved sanitation reduces diarrhea morbidity by 32%. - Access to safe water and sanitation facilities and better hygiene practice can reduce morbidity from ascariasis by 29%. - Project implementation is expected to contribute with the reduction of the number of cases of waterborne diseases in the unserved area Ampliación Lucio Blanco in Playas de Rosarito.
Environmental	By eliminating the use of latrines, septic tanks, and open drains, the proposed project will contribute to reduce the potential for groundwater and surface water contamination resulting from the inappropriate disposal of untreated wastewater. The following are the expected project environmental benefits: - Wastewater connections with collection and treatment: 748 new connections (BEIF-eligible build-out 915 connections) - Capacity to collect and treat wastewater: 7.6 lps (0.17 MGD)

2.b Human Health and Environmental Impacts.

Human Health Impacts

Direct and Indirect Benefits:

- The project will help to reduce groundwater and surface water contamination.
- The project will reduce soil contamination.

Health Statistics:

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.

Supporting Figures:

The following table shows waterborne disease statistics for the city of Playas de Rosarito. As shown below, the number of cases has dropped throughout the years despite the population's growth. Projects to improve water services, such as the provision of wastewater collection and treatment services contribute to improve the communities' public health.

No. de Cases						
Enfermedad	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Intestinal diseases by other organisms	829	3166	1694	4708	2623	2785
Other Helmintiases	191	200	87	231	184	123
Intestinal Amoebiasis	147	73	60	135	132	135
Giardiasis	-	-	-	78	-	-
Scabiosis	125	-	41	-	25	-

Table 2.1 – Waterborne Disease Statistics for Playas de Rosarito, B.C.
Source: Secretariat of Health, Epidemiological Surveillance Coordinating Unit, General Morbidity, New Cases. Playas de Rosarito

Environmental Impacts

Direct and indirect benefits:

The construction of new wastewater collection systems in Playas de Rosarito will reduce health and environmental risks associated to inadequate wastewater collection and lack of wastewater treatment. The proposed project will allow CESPT to collect and treat wastewater generated in the area Ampliación Lucio Blanco in compliance with existing federal and state laws and regulations.

Environmental impacts:

The implementation of this project will help eliminate wastewater discharges to latrines or open drains, which may positively impact ground and surface water bodies, considering that wastewater produced in the project area will be collected

	and treated at the Rosarito I WWTP, decreasing risks of contamination to groundwater and surface waters, including the Pacific Ocean. Minor environmental impacts are anticipated from implementation of the different phases of these project, provided that the tasks are implemented in accordance with the specifications of Mexico's Environmental Impact Assessment Document, Manifestacion de Impacto Ambiental (MIA, for its initials in Spanish), and taking into account the mitigation measures established in it. Potential impacts include the following: <u>Construction Phase</u> - Fugitive dust emissions - Gas emissions from construction machinery - Temporary roadway blockages, presence of workers in the area
Mitigation measures:	Mitigation measures in the MIA include: - Application of treated wastewater to reduce fugitive dust emissions - Vehicle tune ups to reduce emissions - Placement of warning signs to prevent potentially hazardous situations
Impacts:	The environmental impact resulting from the project implementation will be positive overall, given that it increases wastewater collection coverage, reducing environmental contamination and improving the quality of life of area residents by curtailing potential health hazards.
Transboundary Impacts	
	Due to the proximity of Playas de Rosarito and Tijuana with various communities in the San Diego County in the United States, there are frequent border crossings between cities. The construction of new wastewater collection systems in currently unserved areas 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 these actions will reduce the risk of waterborne diseases caused by inappropriate wastewater management. Furthermore, the project will reduce human contact with raw wastewater. Additionally, the implementation of project will reduce the potential for contamination of local and shared water bodies, such as the Pacific Ocean. According to the transboundary environmental assessment significant impacts are not expected due to the project implementation.

Formal Environmental Clearance	
Environmental Clearance:	Pursuant to the provisions of Baja California's Law of Environmental Protection regarding the environmental impacts of the project, the Secretariat of Environmental Protection for the State of Baja California (SPA, for its initial in Spanish) required and Environmental Impact Assessment (MIA, by its initials in Spanish). This study was prepared and submitted to the SPA on January 30th, 2009. The project was authorized in the official document No. SPA-TIJ-939/09 5.3.019-MIA/09 issued on April 17, 2009 after a determination was made that the project complies with all the requirements of the Mexican environmental clearance process. Pursuant to the U.S. National Environmental Policy Act (NEPA), a transboundary environmental assessment was developed and submitted for consideration to the United States Environmental Protection Agency (EPA). A 30-day public review started on August 9th, 2010 to receive comments related to the environmental assessment and it's Finding of No Significant Impact (FNSI). By September 9th, 2010 the EPA issued the final FNSI establishing that the project will not result in significant environmental impacts that may affect the U.S. border area.
Results Measurement Project Matrix Summary	
Results Measurement	**Indicators and Targets**
1. Increase Access and Use of Wastewater Collection Services	Increase wastewater collection service (Target = 748 new connections*) *As of Mar 2012, CESPT reports 748 existing water accounts; final design considers BEIF-eligible build-out of 915 connections. **Baseline Value** Connections with wastewater collection service= 0
2. Reduction of uncollected WW discharges to water bodies or other (Protection of Natural Resources)	**Indicators and Targets** Capacity to eliminate uncollected wastewater discharges (target= 0.17 MGD) **Baseline Value** Capacity to collect wastewater discharges = 0

Pending Issues:

None.

Criterion Summary:

The project complies with BECC's Human Health and Environment criteria.

3. Technical Feasibility

3.a Technical Aspects

The project consists of the construction of wastewater collection infrastructure for the unserved areas Ampliación Lucio Blanco (Phase II) in Playas de Rosarito, Baja California.

Project Development Requirements

Design criteria:

The project final design was developed pursuant to the wastewater collection technical standards issued by Baja California's Secretariat of Infrastructure and Urban Development, and the technical specifications contained in the Water, Wastewater Collection and Treatment Manual prepared by CONAGUA. The design, also complies with Official Mexican Standard NOM-001-CNA-1995 "Sanitary Sewage System – Specifications for Insulation". Final designs were reviewed by BECC and NADB, and validated by CONAGUA.

The project includes the following elements:

Wastewater Collection

- Construction of sewer lines in unserved areas
  Total Length: 8,743 meters (28,684 ft)
  Diameter: 20cm (8")
  Material: PVC
- Construction of sub collector
  Total Length: 686 meters (2,251ft)
  Diameter: 30 cm (12")
  Material: PVC
- Total Length: 301 meters (988 ft)
  Diameter: 38 cm (15")
  Material: PVC
- Household connections
  Total Length: 5,490 meters (18,012 ft)
  Diameter: 15 cm (6")
  Material: PVC

The wastewater collection system in the project area consists of the installation of sewer lines and sub-collector that will discharge by gravity in an existing collector that will convey anticipated wastewater flows generated (approximately 7.6 lps or 0.17 MGD) to the Rosarito I wastewater treatment plant that is being expanded to increase its treatment capacity from 60 lps (1.36 MGD) to 120 lps (2.73MGD), the WWTP will have enough treatment capacity.

The Rosarito I WWTP is located approximately 13 (21 km) miles south of the US-Mexico border in Playas de Rosarito. The existing treatment process includes an Extended Aeration/Activated Sludge (EA/AS) treatment system. The plant discharges into the Arroyo Huahuatay where the effluent is conveyed to the Pacific Ocean for final disposal through an ocean outfall which is located

approximately 22 km (13.75 miles) south of the international border. The 150 lps (3.4 MGD) outfall has enough capacity to receive the flows.

The plant's expansion to 120 lps (2.73MGD) started in September 2011 in order to serve areas that are being connected to the wastewater collection system, including the proposed project. The plant's expansion is expected to be completed by September of 2012.

The treated effluent will comply with the Mexican Norms, NOM-001-SEMARNAT-1996 for discharges into the Ocean and NOM-003-SEMARNAT-1997 for reclaimed water use for non-potable uses

The sludge generated in the treatment plant will be managed, treated and disposed according to the norm NOM-004-SEMARNAT-2002.

The sludge (solids) generated by all treatment plants operated by CESPT, as well as the sludge generated at the South Bay International Treatment Plant in San Diego, are being treated and disposed of at a location called Punta Bandera, approximately 6.8 km (4.2 miles) south of the international border.

Punta Bandera facilities have a surface area of approximately 400,000 m^2 (478,396 yd^2), and include beds for additional sludge dewatering and 8 sludge disposal cells with a capacity of 23,726 m^3/year (31,032.4 yd^3/yr) (dry base), each.

The final design included the implementation of green building practices as part of the technical construction specifications. For example, the final design specifies the use of materials suitable for the project and that guarantee durability at a low cost; it also specifies the use of materials from the region to avoid transportation costs and emissions.

The final design specifications describe the availability of materials such as paint, plaster, pipes, packages etc, and its characteristics so the contractors have the option to make a selection with low toxicity. It also requires the use of equipment with low energy consumption, and sensors for lighting control.

It was requested to document any change in materials or actions that imply energy savings or improvements to the environment during project execution.

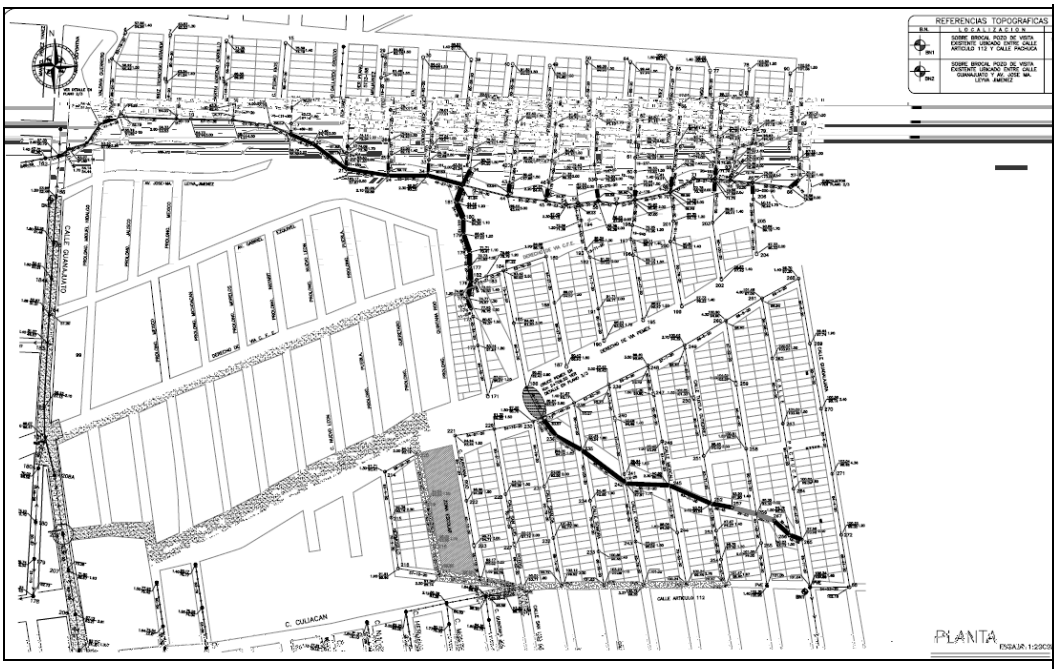

Figure 3.1 Ampliacion Lucio Blanco (Phase II) Wastewater Collection System Layout

Appropriate Technology

Assessment of Alternatives:

As part of the project development, various routing and materials alternatives were evaluated based on the following parameters:

- Capital and O & M Cost
- Material and Equipment Reliability
- Environmental Impact
- Social/Community Acceptance
- Topography

The analysis considered the use of pipe materials in compliance with norms and current regulations. High density polyethylene and PVC pipes were evaluated according to the soil type.

In order to reduce costs and make the best use of the project area topography, the shortest routes were considered for pipe alignments. Crossings through paved avenues were also minimized as well as crossing with drinking water pipes and telephone lines.

Pipe diameters were calculated using slopes and velocities accordingly to avoid silt and at the same time avoid over excavation and/or the use of lift stations that might increase costs. Maximum flow rate, full build-out in the project areas and treatment capacity was also considered for pipe diameter requirements in order to avoid oversized pipelines. Pipe layout was designed based on existing right of ways, according to urban land use plan.

Based on the design criteria mentioned above, an alternative was

selected and final design was developed, considering the environmental impacts and mitigation measures according to the specifications of the MIA, authorized by the state of Baja California.

Property and Right-of-Way Requirements

Requirements:

- All sewer lines and sub-collector would be laid on existing municipal rights of way and easements.
- The utility will request the corresponding permits and licenses to construct in the right of ways and for street closures at the startup of the construction process

Project Tasks and Timelines

Construction Calendar

No	Concept	2012											
		J	F	M	A	M	J	J	A	S	O	N	D
Wastewater Collection													
1	Ampliacion Lucio Blanco (Phase II)												

Bidding Process Construction

3.b Management and Operations

Project Management

Resources: Management, construction, and operation of the proposed project will be responsibilities of the project sponsor that has the necessary resources and staff available for these purposes.

Operation and Maintenance

Organization: CESPT serves approximately 500,000 water hook-ups and wastewater connections in the Tijuana and Playas de Rosarito metropolitan area, and has an appropriate Operation and Maintenance plan. The utility is organized in various departments, including: Planning, Wastewater Treatment, Operation and Maintenance, Construction, and Administration.

Pretreatment: The project sponsor has a pretreatment program to control industry and small businesses discharges in coordination with Baja California's Environmental Protection Agency. The pretreatment program complies with the BEIF program requirements.

Operation plan: The sponsor has an Operation and Maintenance manual that includes the primary tasks needed to ensure a proper operation of the system and to prevent breakdowns in the proposed infrastructure.

Permits, Licenses, and Other Regulatory Requirements:	The project sponsor has the following documentation available: - Wastewater discharge permit (CONAGUA) - Final Design validations (CONAGUA) - State Environmental Clearance
Reviewing agencies:	BECC, NADB, CONAGUA, EPA

Pending Issues:

None

Criterion Summary:

The project complies with BECC's Technical Feasibility criteria.

4. Financial Feasibility

4.a Verification of Financial Feasibility

Financial Conditions

Information Submitted: 2006-2010 financial statements from the Comisión Estatal de Servicios Públicos de Tijuana (CESPT).

Financial Analysis Results: Project to be fully funded through a combination of Mexican and Border Environment Infrastructure Fund (BEIF) grants.

Project Scope, Project Cost and Financial Structure

Item: The scope of the project is the "Expansion of the Wastewater Collection System for the Unserved Area Ampliación Lucio Blanco (Phase II) in Playas de Rosarito, B.C."

Final Cost: **US$ 1,725,512**

Financial Structure:

Source	Type	Amount (US)	%
Mexico	Grant	$862,756	50
NADB-BEIF Construction Assistance	Grant	$862,756	50
Total:		**$1,725,512**	**100%**

Dedicated Revenue Source

Source of Income: CESPT revenues sufficient to operate and maintain system and maintain reserve requirements.

4.b Legal Considerations

Project Management: The project will be managed directly by CESPT, which has the legal and technical capacity to implement the project.

Pending Issues:

None.

Criterion Summary:

The project complies with BECC/NADB Financial Feasibility Criterion.

5. Public Participation

5.a Community Environmental Infrastructure Projects – Community-wide impact

Local Steering Committee

Date of Establishment:

The Local Steering Committee was formally installed on October 10th, 2008 at a meeting held in CESPT facilities.

Local Steering Committee Members:

At this meeting, a Board of Directors was selected, and it is formed by the following individuals:

Chairperson:	José Luis Contreras Valenzuela,
Secretary:	Filiberto Enríquez Juárez,
Treasurer:	Alonso Vázquez Hernández
Members:	Manuel Becerra, Daniel Romero Mejía Karla Camacho, Gustavo Hernández

The steering committee has periodic participations to help the project sponsor to disseminate information regarding water and wastewater infrastructure projects. 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 as project gets close to be implemented in their communities such as the case of the Lucio Blanco project.

Date of Approval of Public Participation Plan:

The Comprehensive Community Participation Plan developed by the Local Steering Committee was approved by the BECC on October 11, 2008. The plan included the support and follow up of the Ampliacion Lucio Blanco wastewater collection system together with several, water and wastewater infrastructure works to be developed in the following years in Tijuana and Playas de Rosarito included in a loan authorization by NADB Board in July 2009 for up to 380 million pesos.

Public Access to Project Information

Public access to project information:

The project's technical and financial information was made available to the public for review. The Local Steering Committee, with assistance from the project sponsor, prepared the following:

- Flyers
- Power Point Presentation

The above was used to inform the community about the project.

Additional Outreach Activities:

- Development and dissemination of project fact sheet
- Project surveys to document the community's concerns or support for the project

Public Meeting:	The 1st Public Meeting notice was published in "El Mexicano," a local newspaper, on October 5th, 2008. The first meeting was used to inform the public about the technical aspects of the project. The meeting was held at 10:00 a.m on November 5th, 2008 at the CESPT facilities. Attendees included the Local Steering Committee, as well as CESPT, and BECC representatives. The meeting was attended by more than 200 residents of which 83 answered a project survey, a 99% percent of those surveyed said they were able to fully understand the project and explicitly expressed their support.
Second Public Meeting:	A second public meeting was held on February 27th 2012. During the meeting the community was informed of the project's financial components for the second phase of this project. The meeting was attended by more than 60 people that showed their support and expressed their interest in the implementation of this project.
Final Public Participation Report	
Final report:	The project sponsor prepared the Final Public Participation Report to demonstrate that the proposed objectives were fully met to BECC's satisfaction.
Post-Certification Public Participation Activities	
Post-Certification Activities:	The project sponsor provided a general description of public participation activities that may be carried out after the certification of the project to support their implementation and long-term feasibility.

Pending Issues:

None

Criterion Summary:

The project complies with BECC's Public Participation Criteria.

6. Sustainable Development

6.a Human and Institutional Capacity Building

Project Operation And Maintenance:

The project sponsor will be the agency responsible for operating and maintaining the system as it relates to:

- Wastewater treatment
- Water distribution
- Wastewater collection

The sponsor has the basic institutional and human capacity to operate and maintain the following:

- Proposed wastewater collection system
- Pretreatment program

Human and Institutional Capacity Building:

Actions within the scope of the project that contribute to institutional and human capacity building for the Tijuana Public Works State Commission (CESPT) include:

- Provide wastewater collection, and treatment services in a continuous, efficient, and cost-effective approach.
- Operate wastewater collection and treatment system that meet applicable local, state, and federal regulations.
- Provide training and continuing education to the utility's operating staff throughout its different areas, to offer essential services that meet the needs of the community and provide responsible maintenance of the new infrastructure.
- Optimize the use of scare water resources, and raise public awareness about the importance of water for the community development.

Additional Plans or Programs:

The sponsor currently manages an educational program called "Cultura del Agua", which aims to promote water conservation and the efficient use of the water resources among the community.

There is also a water reclamation program call "Proyecto Morado" this program includes the development of treated wastewater studies to find reuse alternatives and proper implementation.

Currently the sponsor uses some of the effluent from the Rosarito Norte WWTP for irrigation and landscaping purposes.

6.b Conformance to applicable Local, State, and Regional Regulations and Conservation and Development Plans.

Local and Regional Plans addressed by the project:

The proposed project conforms to applicable plans and actions described in the following documents:

- Master Plan for Improvements to Water, Wastewater and Collection Services
- State Development Plan
- Municipal Development Plan
- The Municipal Development Plan establishes the need to develop basic sanitary infrastructure in Playas de Rosarito, such as wastewater collection and treatment services.
- The implementation of the project will eliminate risks inherent to inappropriate wastewater management, and treated wastewater will be available for reuse. This will reduce the use of drinking water for landscaping purposes.
- From a regional planning standpoint, the project incorporates actions and tasks included in the National Hydraulic Program (*Programa Nacional Hidráulico*, PNH), such as the reduction of water contamination in a watershed deemed to be a priority to the PNH due to its bi-national condition since the Pacific Ocean is a shared waterbody with United States.
- The project adheres to the U.S.-Mexico Border 2012 Environmental Program by meeting Goal 1 (Reducing water contamination) and Objectives 1 (promoting an increase in the number of household connections to wastewater collection and treatment services) and 4 (promoting improve water utility efficiency). One of the program's guiding principles is to reduce major risks to public health and conserving and restoring the natural environment.

Laws and regulations met by the project:

The project meets applicable federal regulations pursuant to wastewater collection, treatment, and final disposal.

6.c Natural Resource Conservation

- The final design includes the implementation of green building practices as part of the technical construction specifications.
- The project contributes to reduce environmental deterioration by expanding existing wastewater collection lines and providing the necessary means to connect 100% of the project area to this service. Wastewater will be collected and conveyed to an existing WWTP to improve its quality, so as to reduce aquifer contamination and human health hazards resulting from the discharge of raw wastewater to streams or agricultural drains.

6.d Community Development

- The completion of this project is crucial for the development of the community. The tasks proposed by the project will contribute to the appropriate disposal of wastewater, which in turn will reduce the conditions that favor the proliferation of water-borne and arboviral diseases.
- The implementation of wastewater collection systems will promote community development, as it will reduce contamination in the city and improve the quality of life for local residents.
- Treated wastewater will be available for other uses, including agricultural and urban public purposes.
- The project will help the city achieve greater wastewater collection coverage, which in turn will enhance the development of the community, since it will reduce contamination on the streets caused by wastewater runoff. In addition, it supports the harmonious community development by promoting the development of other infrastructure such as street paving.

Pending Issues:

None.

Criterion Summary:

The project complies with the Sustainable Development Criteria.

Available Documents

- Final Design, Wastewater Collection systems for colonia Ampliación Lucio Blanco, 2009

- Datos Básicos de proyectos y datos demográficos Tijuana y Playas de Rosarito, CESPT 2011. (Basic Information and Demographic data)

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