

Border Environment Cooperation Commission

Expansion of the Rosarito I Wastewater Treatment Plant in Playas de Rosarito, B.C.

1. General Criteria

1.a Project Type

| | |
|------------------------|--|
| Project Name: | Expansion of the Rosarito I Wastewater Treatment Plant in Playas de Rosarito, B.C. |
| Project Sector: | Wastewater Treatment |

1.b Project Category

| | |
|------------------|--|
| Category: | Community Environmental Infrastructure Project – Community-wide impact |
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1.c Project Location and Community Profile

| | |
|------------------------------------|---|
| Community: | Municipality of Playas de Rosarito, Baja California, México. |
| Location: | The project is located in the municipality of Playas de Rosarito, in the northwestern side of the State of Baja California, Mexico, approximately 20 km (12.5 miles) south of the US-Mexico border, adjacent to the Pacific Ocean. The city is also adjacent to Tijuana, which borders the United States-San Diego Metropolitan Area to the north. Playas de Rosarito borders Tijuana to the north and east, Ensenada to the south and the Pacific Ocean to the west. |
| Location within the border: | <p>The project is located within the 100 km (62.5 mi) of the US-Mexico border area.</p> <p>The Rosarito I wastewater treatment plant (WWTP) is located approximately 20 Km (12.5 miles) southwest of the US-Mexico International Border in Playas de Rosarito Baja California.</p> |
| Figure: | The following figure shows the location of the municipality of Playas de Rosarito. |



Figure 1.1 Playas de Rosarito, Baja California, México.

Demographics

| | |
|--|--|
| Current population: | 87,530 residents |
| Growth rate: | 4.91 % |
| Reference: | INEGI year: 2005, CONAPO 2009 |
| Economically active population: | 20,376 residents |
| Reference: | INEGI Year: 2000 |
| Median per capita income: | \$ 2,375 Pesos |
| References: | COCEF estimation based on statistics by INEGI and the National Commission on Minimum Wages |
| Economic activity: | Manufacturing industry, tourism, trade, and services |
| Marginalization rate: | -1.90, Very low |

Services

Community: Playas de Rosarito

Water System

| | |
|--|----------------|
| Water coverage ¹ : | 94.4% |
| Water supply source: | Colorado River |
| Number of water hookups ² : | 28,006 |

¹ Source: CESPT, as of December 2008

² Source: CESPT as of December 2008

Wastewater Collection System

Wastewater collection coverage³: 61.4 %
 Number of sewer connections:⁴ 18,197

Wastewater Treatment

Wastewater treatment coverage: 100%⁵
 Wastewater Treatment Plant (WWTP) and treatment technologies:

| Plant | Type | Capacity |
|----------------|------------------|-------------------------------|
| Rosarito Norte | Activated Sludge | 210 lps ⁶ (4.8MGD) |
| Rosarito I | “ | 60 lps (1.4MGD) |
| Puerto Nuevo | “ | 2 lps (0.045MGD) |

Approximately 61% 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 1.4 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.

Solid Waste

Solid waste collection coverage: 100%
 Final disposal: Landfill

Street Paving

Street paving coverage: 67%

1.d Legal Authority

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

Legal representative: Hernando Durán Cabrera

Legal instrument to demonstrate legal authority: Decree No. 44, V Legislature of the State of Baja California

Date of instrument: December 16, 1966

³ Source: CESPT, as of December 2008

⁴ Source: CESPT, as of December 2008

⁵ Currently 100% of the collected wastewater in Playas de Rosarito, receives wastewater treatment, however additional capacity is required as new areas are being connected to the wastewater collection system. These areas did not have wastewater collection infrastructures previously.

⁶ lps = liters per second

Compliance with agreements:

- 1889 International Boundary Convention
- 1944 Water Treaty
- 1983 La Paz Agreement, or Border Environment 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 expansion of the Rosarito I WWTP, located in Playas de Rosarito Baja California, in order to increase treatment capacity from 60 to 120 lps (1.4-2.8 MGD).

The existing Rosarito I WWTP provides secondary treatment consisting of an Extended Aeration/Activated Sludge (EA/AS) treatment system, which includes: a pre-treatment unit, two aerated lagoons, secondary clarifier, sludge digester and sludge drying unit. The plant provides a total treatment capacity of 60 lps (1.4 MGD).

The proposed project includes the installation of a pretreatment unit for discharges from septic tanks service trucks and another unit for municipal wastewater from wastewater collection system. It also includes the construction of an aeration tank for incoming wastewater (aerobic reactor, oxidation ditch type), a secondary clarifier, UV light disinfection and a sludge digester.

Currently, the plant's treated effluent complies with the Mexican Norm NOM-001-SEMARNAT-1996 and is discharged into the Arroyo Huahuatay where it is then conveyed to the Pacific Ocean for final disposal through an ocean outfall located approximately 22 km (13.75 miles) south of the international border. The outfall has a capacity of 150 lps (3.4 MGD) and extends 500 m (1,640 ft) offshore.

Treated effluent discharges would continue through the Arroyo Huahuatay for final disposal in the Pacific Ocean. The project sponsor will reuse a portion of the treated wastewater for landscape irrigation in the "Gran Parque de la Ciudad."

The expected effluent quality for the Rosarito I WWTP would be in compliance with the Mexican Norms, NOM-001-SEMARNAT-1996 for discharges into the Ocean and NOM-003-SEMARNAT-1997 for reclaimed water use for public services.

The sludge generated at the treatment plant will be transported, treated and disposed pursuant to NOM-004-SEMARNAT-2002. The stabilized and dehydrated sludge will be disposed at a location assigned by the CESPT and authorized by the Secretaria de Proteccion al Ambiente (Environment State Department).

Benefited Population: 21,802 residents

Number of connections served: 5,292

Project cost: US\$ 4,526,481

Project map: The following figure shows the location of the Rosarito I WWTP

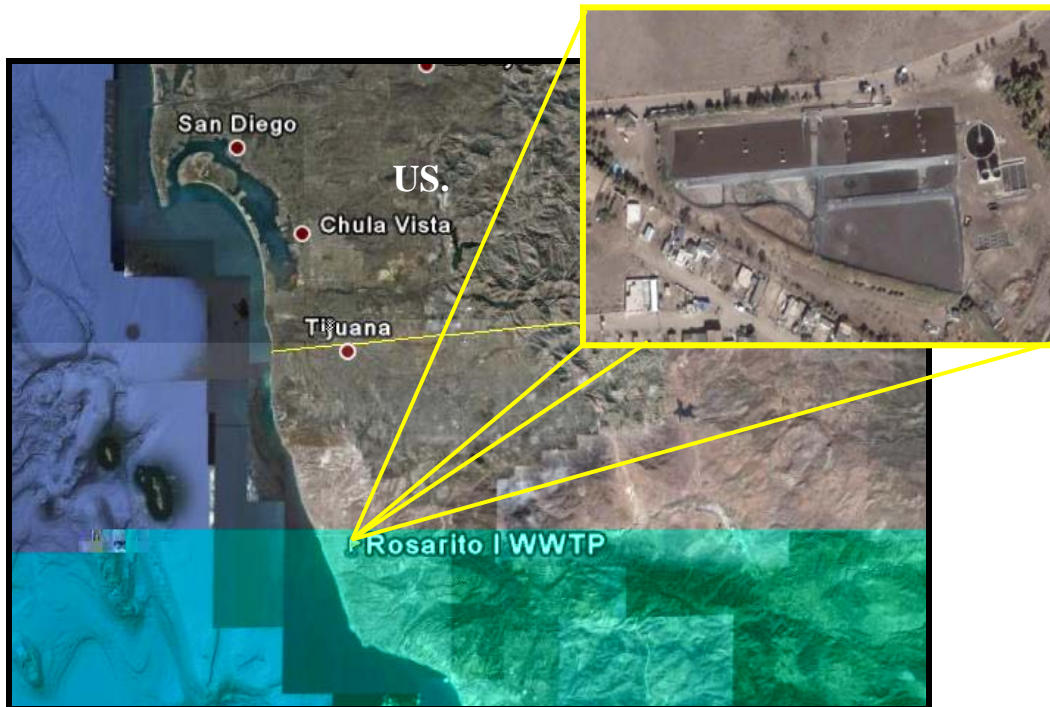


Figure 1.2 WWTP Rosarito I in Playas de Rosarito, BC.

1.f Project Justification

Project justification:

- The Rosarito I WWTP with capacity of 60 lps (1.4 MGD) serves nearly 34,500 residents (8,370 connections) and it is currently working over capacity, since it receives an average inflow of 68 lps (1.6 MGD). As a result, the WWTP is unable to serve new areas that are being connected to the wastewater collection system.
- Approximately 5,292 connections are being installed to service 21,802 residents; these connections will generate a total estimated wastewater flow of 44 lps (0.8 MGD) that needs to be treated at the Rosarito I WWTP. According to CESPT's calculations, an additional capacity of at least 44 lps (1 MGD) will be required to accommodate the existing and upcoming flows.
- The proposed expansion of the existing Rosarito I WWTP will address environmental and public health risks by providing adequate wastewater collection, treatment and discharge conditions and eliminating untreated sewage discharges in areas of Rosarito that are not currently served nor connected to a wastewater treatment facility.
- The proposed project will significantly reduce or eliminate inappropriate wastewater disposal, resulting in improved environmental and sanitation conditions. It also will reduce human contact with contaminated water as well as with vectors of waterborne diseases.
- With the proposed action, wastewater treatment capacity in Playas de Rosarito would be available for the short and long term. The wastewater would be treated by the proposed methods instead of being directly disposed into the streets and water bodies that could eventually reach the Pacific Ocean. The project will reduce potential surface water and groundwater contamination by eliminating raw wastewater discharges in open ditches and existing creeks in the area.

Urgency of the project or consequences of no action:

- The lack of wastewater treatment jeopardizes public health in the project areas, inasmuch as they are exposed to having contact with 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 Public Health needs addressed by the proposed project:

- Appropriate wastewater treatment. Currently the Rosarito I WWTP does not have sufficient capacity. The rehabilitation and expansion of the treatment system will reduce contamination in the Huahuatay creek. The project will promote reclaimed water reuse for public services in order to reduce drinking water consumption.
- Reduce the risk for communicable waterborne diseases caused by human contact with raw wastewater runoff as a result of the lack of wastewater collection and treatment in the different areas of Playas de Rosarito.
- Reduce soil and surface water contamination, inasmuch as 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.

The project meets the following applicable environmental laws and regulations:

- Official Mexican Standard NOM-001-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into national waters and territories.
- Official Mexican Standard NOM-003-SEMARNAT-1997, which establishes the maximum permissible levels of contaminants for reclaimed water use for non-potable uses.
- Official Mexican Standard NOM-004-SEMARNAT-2002, which establishes the maximum permissible levels of contaminants for biosolids reuse and final disposal.

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.

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.

Waterborne diseases may be caused by protozoan, viruses, bacteria, and intestinal parasites.

Supporting figures:

The following figure 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. of Cases | | | | | |
|--|------|------|------|------|------|
| Disease | 2002 | 2003 | 2004 | 2005 | 2007 |
| Intestinal diseases by other organisms | 2112 | 578 | 829 | 3166 | 1694 |
| Other Helmintiasis | 266 | 177 | 191 | 200 | 87 |
| Intestinal Amoebiasis | - | - | 147 | 73 | 60 |
| 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 expansion of the Rosarito I WWTP will reduce health and environmental risks associated to inadequate wastewater collection and lack of wastewater treatment. The proposed project will allow CESPT to treat wastewater generated in the project areas in compliance with existing federal and state laws and regulations.

Environmental impacts:

The project implementation will allow that the wastewater generated in the East part of Playas de Rosarito could be collected and treated at the Rosarito I WWTP improving the quality of the water in rivers and creeks in the area, and ultimately in the Pacific Ocean.

Minor environmental impacts are anticipated from implementation of the different project phases, provided that the project tasks are implemented in accordance with the specifications of Mexico's Environmental Impact Assessment Document called Manifestacion de Impacto Ambiental (MIA by its initials in Spanish) and taking into account the mitigation measures established in it.

Construction Phase

- Fugitive dust emissions.
- Gas emissions from construction machinery.
- Temporary roadway blockages, presence of workers in the area
- Special Handling Solid Waste generation.

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 signage to prevent potentially hazardous situations.
- Separate Management for urban and special solid waste and disposal according to the existing Mexican norms and the Estate regulations.

Impacts:

The environmental impact resulting from the project implementation will be positive overall, given that the project increases wastewater treatment coverage for the short, medium and long term, reducing environmental contamination and improving the quality of life of residents in the project areas by curtailing potential health hazards.

Transboundary Impacts

Due to the proximity of Playas de Rosarito with various communities in the San Diego County in the United States, there are frequent border crossings between cities. The proposed project 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 to reduce the risk of waterborne diseases caused by the lack of wastewater treatment or inappropriate wastewater management. Furthermore, the project will reduce human contact with raw wastewater.

Additionally, the project implementation 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 the Mexico's General Law on Environmental Equilibrium and Protection (LGEEPA, by its initials in Spanish) regarding the environmental impacts of the project, the Mexico's Secretariat of the Environmental and Natural Resources (SEMARNAT, by its initial in Spanish) established, that the project required a *MIA*, an Environmental Impact Statement in the Particular Modality. The *MIA* was prepared and submitted to the SEMARNAT on September 01, 2005, and it was authorized in the official document DFBC/SGPA/UGA/DIRA/I3468/05 issued on February 14, 2006 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 March 31, 2009 to receive comments related to the environmental assessment and its Finding of No Significant Impact (FNSI). By May 22, 2009 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.

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 expansion of the Rosarito I Wastewater Treatment Plant (WWTP), located in Playas de Rosarito Baja California, in order to increase treatment capacity from 60 to 120 lps (1.4-2.8 MGD).

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 designs, also comply with Official Mexican Standard NOM-001-CNA-1995 "Sanitary Sewage System – "Specifications for Hermeticity". Final design was reviewed by BECC and NADB, and validated by CONAGUA.

The existing Rosarito I WWTP provides secondary treatment consisting of an Extended Aeration/Activated Sludge (EA/AS) treatment system, which includes: a pre-treatment unit, two aerated lagoons, secondary clarifier, sludge digester and sludge drying unit. The plant provides a total treatment capacity of 60 lps (1.4 MGD).

Currently, the plant's treated effluent complies with the Mexican Norm NOM-001-SEMARNAT-1996 and is discharged into the Arroyo Huahuatay where it is then conveyed to the Pacific Ocean for final disposal through an ocean outfall located approximately 22 km (13.75 miles) south of the international border. The outfall has a capacity of 150 lps (3.4 MGD) and extends 500 m (1,640 ft) offshore.

The project will include the following components:

- **Pretreatment unit for discharges from septic tanks service trucks.** It includes the installation of coarse screens (bar racks) for solids removal and the construction of a sedimentation tank, and a sludge processing system that comprises; a wet well and a sludge pump station, a storage tank, dewatering by centrifugation and odor control system.
- **Pretreatment unit for municipal discharges from wastewater collection system.** Headworks include the installation of coarse screens, fine screens and a vortex type grit chamber.

- **Aerobic Reactor.** Consists of the construction of an oxidation ditch type aeration tank (biological reactor) with low speed mechanical aerators for incoming flows.
- **Clarifier.** Consists of the construction of a concrete circular tank with a mechanical system (sludge scraper arm), a surface skimmer for floating solids removal and a sludge pumping system.
- **UV Disinfection.** Consists of the construction of a UV lights disinfection chamber.
- **Sludge Digester.** Consists of the construction of a steel tank for sludge stabilization with a centrifugation unit for dewatering.

The WWTP design parameters are:

Reuse (NOM-003-SEMARNAT-1997)

Monthly Average

| Coliforms NMP/100mL | Oils and grease M/L | BOD ₅ mg/L | TSS mg/L |
|------------------------|------------------------|--------------------------|-------------|
| 1,000 | 15 | 30 | 30 |

The following table describes discharge limits and current effluent water quality.

| Parameter | Units | Maximum Limit | | Avg. Value Jan to Sept 08 |
|------------------------|-----------|---------------|-------------|------------------------------|
| | | Monthly | Daily | |
| (BOD) | mg/l | 30 | 150 | 8 |
| Oil and Grease | mg/l | 15 | 25 | 4 |
| Fecal Coliform | MPN/100ml | 1000 | 2000 | 30 |
| Total Suspended Solids | mg/l | 30 | 125 | 24 |
| Settleable Solids | mg/l | 1 | 2 | 0.1 |
| Floating Matter | mg/l | Not present | Not present | N/A |
| Temp | °C | 40 | 40 | 21 |
| pH | Units | 5-10 | 5-11 | 8 |
| Phosphorous | mg/l | 20 | 30 | 4 |
| Nitrogen | mg/l | 40 | 60 | 28 |
| Arsenic | mg/l | 0.1 | 0.2 | N/A |
| Cadmium | mg/l | 0.1 | 0.2 | N/A |
| Cyanide | mg/l | 1 | 2 | N/A |
| Copper | mg/l | 4 | 6 | N/A |
| Chromium | mg/l | 0.5 | 1 | N/A |
| Mercury | mg/l | 0.005 | 0.01 | N/A |
| Nickel | mg/l | 2 | 4 | N/A |
| Lead | mg/l | 0.2 | 0.4 | N/A |
| Zinc | mg/l | 10 | 20 | N/A |

WWTP Rosarito I Maximum daily and monthly loads and water quality report.

The expected effluent quality for the Rosarito I WWTP would be in compliance with the Mexican Norms: NOM-001-ECOL-1996 for discharges into the Ocean and NOM-003-ECOL-1997 for reclaimed water use for non-potable uses.

Treated effluent discharges would continue through the Arroyo Huahuatay for final disposal in the Pacific Ocean. A portion of the treated wastewater will be used for landscape irrigation in the “Gran Parque de La Ciudad.”

Currently, 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 disposed at a location called Punta Bandera, approximately 6.8 km (4.2 miles) south of the international border for disposal and treatment.

Punta Bandera facilities have a surface area of approximately 400,000 m² (98.9 acres), and include piles for additional sludge dewatering and 8 sludge disposal cells with capacity of 23,726 m³/year (dry base) (837,876 ft³/year), each.

Sludge volumes generated by the Rosarito I WWTP in 2007 and 2008, were 700 m³ (24720 ft³) and 1704 m³ (60176.19 ft³) respectively. The sludge will continue to be disposed at Punta Bandera, including additional volumes generated by the proposed project.

The final design includes the implementation of green building practices as part of the technical construction specifications. For example, the final design considers the use of materials that will provide a good balance between cost and durability and also considers the use of materials from the region to avoid transportation costs and emissions.

The final design specifications describes the availability of materials and its characteristics so the contractors have the option to select materials with low toxicity such as paint, plaster, pipes, packages etc. It also requires the use of energy efficient equipment such as high efficiency motors, lighting by solar energy and the use of sensors and automated controls. The specifications also mention how to manage byproducts generated during the construction process.

The expansion of the treatment plant considered size and modules that allow an efficient management of the flows, pumps and equipment with high efficiency to reduce energy consumption.

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

The following figure shows the plant's layout:

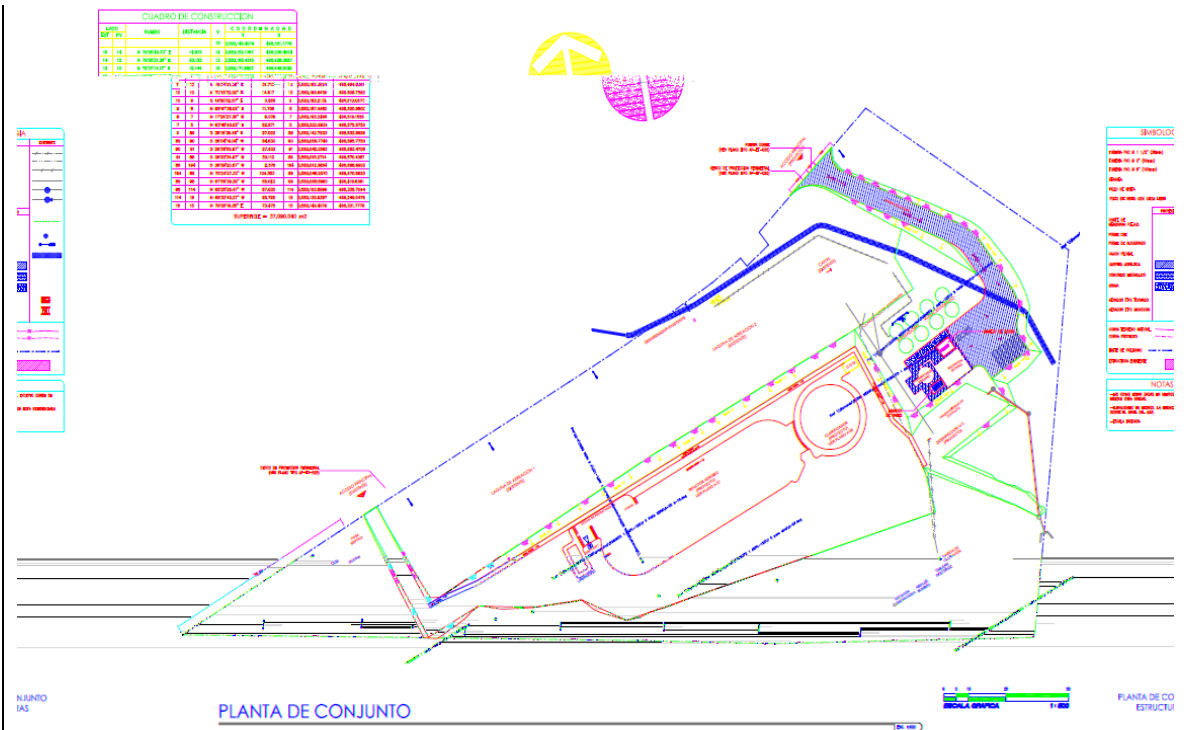


Figure 3.1 Layout WWTP Expansion Rosarito I

Appropriate Technology

Assessment of alternatives:

As part of the project's development, The alternatives considered for the expansion of the WWTP Rosarito I, were evaluated based on the following parameters:

- Cost
- O & M Cost
- Material and Equipment Reliability
- Environmental Impacts
- Social/Community Acceptance
- Technology and sustainable practices

Site selection, capacity and treatment technology were recommended by different planning studies including the Master Plan.

Treatment alternatives were evaluated based on the use of biological treatment at a low cost. Different activated sludge technologies were evaluated along with two alternatives for disinfection; chlorination and UV light.

The alternative selected consisted of secondary treatment with oxidation ditch type activated sludge/extended aeration system, UV disinfection and final filtration.

3.b Management and Operations

Project Management

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

Operation and Maintenance

Organization: CESPT serves approximately 450,000 water hook-ups and wastewater connections in the Tijuana-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 the State Environmental Protection Agency.

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 Validation CONAGUA
- Federal 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 Presented: CESPT's Financial Statements.

Summary of Financial Analysis: CESPT has sufficient revenue to service the debt.

Project Total Cost, Financial Structure and Other Capital Investment Plans

Concept: One financial structure was proposed for the following projects: Expansion of the wastewater collection system to un-served areas Aztlán, Independencia and Lomas de Rosarito and the Rosarito I Wastewater Treatment Plant.

Total Cost: \$7,345,422 USD

Financial Structure:

| Source | Type | Amount (USD\$) | % |
|-------------------|-------|----------------|---------|
| Mexico | Grant | \$2,818,940 | 38.38% |
| NADB-BEIF | Grant | 2,203,627 | 30.00 |
| NADB ⁷ | Loan | 2,322,855 | 31.62 |
| Total: | | \$7,345,422 | 100.00% |

Dedicated Revenue Source

Revenue Source: CESPT's Revenues.

4.b Legal Considerations

Project Administration: The project will be managed by CESPT, who has adequate staff to construct and operate the project.

Financing Status: Loan and Grant contracts to be signed once project is certified.

Pending Issues:

None.

Criterion Summary:

The projects comply with BECC/NADB's Financial Feasibility Criteria.

⁷The loan portion for this project, it is being propose in the certification document of the project "Expansion of the Water and Wastewater System in Tijuana and Playas de Rosarito, Baja California."

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 January 21st, 2009 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: | Concepción del Rocio Bravo, |
| Treasurer: | Alma Castro de Garay |
| Secretary: | Hilario Dávalos Ramos |
| Alternates: | Eloísa Vega Sánchez Bertha Rivas Merlo |

Date of approval of Public Participation Plan: The Comprehensive Community Participation Plan developed by the Local Steering Committee was approved by the BECC on February 4th, 2009.

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 a project fact sheet
- Project surveys to document the community's concerns or support for the project

Public Meeting: Advance notice to announce the Public Meeting was published in "El Mexicano," a local newspaper, on February 4th, 2009.

The meeting was used to inform the public about the technical aspects of the project. The meeting was held at 16:00 hrs on March 4th, 2009 at the Plan Libertador Kiosk. Attendees included the Local Steering Committee, as well as CESPT, BECC and EPA representatives. The meeting was attended by more than 150 residents of which 89 answered a project

survey. 85 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 will be held on July 15th, 2009, it is expected to publish advance notice by July 8th, 2009. During this meeting the community would be informed of the project's financial components.

Final Public Participation Report

Final report:

The Local Steering Committee and the sponsor will prepare the Final Public Participation Report once the meeting has been held, to demonstrate that the proposed objectives were fully met to BECC's satisfaction.

Post-Certification Public Participation Activities

Post-Certification Activities:

The project applicant, in coordination with the Local Steering Committee, provided a general description of public participation activities that may be carried out after the project's certification to support its implementation and long-term feasibility.

Pending Issues:

Second Public Meeting
Public Participation Report

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 treatment system
- The sponsor has as 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 responsible maintenance of the new infrastructure.
- Optimize the use of scarce 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" (Water Education), which aims to promote water conservation and the efficient use the water resource 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.

Likewise the project sponsor intends to reuse part of the treated effluent of the Rosarito I WWTP for landscaping irrigation at the "Gran Parque de la Ciudad".

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. Treated wastewater will be available for reuse, which will reduce the use of drinking water for landscaping irrigation 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 shared water body with US.
- 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.

Impacts to neighboring communities in the U.S.:

The development of this project will prevent untreated wastewater from being discharged into the Pacific Ocean.

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 treatment capacity and allowing that wastewater be collected and conveyed to the WWTP to improve its quality, so as to reduce aquifer and surface water bodies 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 and treatment of wastewater, which in turn will reduce the proliferation of water-borne and arboviral diseases.
- The project 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 treatment coverage, which in turn will enhance the development of the community, since it will reduce contamination caused by raw wastewater discharges.

Pending Issues:

None

Criterion Summary:

The project complies with the Sustainable Development Criteria

Available Documents

- Final Design, Rehabilitation and Expansion of the Rosarito I Wastewater Treatment Plant, Laval-CESPT, 2005.
- Datos Básicos de proyectos y datos demográficos Tijuana y Playas de Rosarito, CESPT 2008. (Basic Information and Demographic data)
- Análisis y proyecciones de agua residual y saneamiento para Tijuana y Playas de Rosarito. (Wastewater generation and treatment analysis and projections)
- Transboundary Environmental Assessment (EA) for the Expansion of the wastewater Treatment Plant Rosarito I” in Playas de Rosarito Baja California”, Marzo 2009
- Manifestación de Impacto Ambiental, Oficio DFBC/SGPA/UGA/DIRA/I3468/05
- Master Plan for Water and Wastewater management, CDM 2003
- Environmental Assessment Tijuana and Playas de Rosarito Potable Water and Wastewater Master Plan, CDM 2003