Border Environment Cooperation Commission
Project Certification Document
Expansion of the Wastewater Collection System for Coastal Areas in Tijuana, BC

1. General Criteria

1.a Project Type

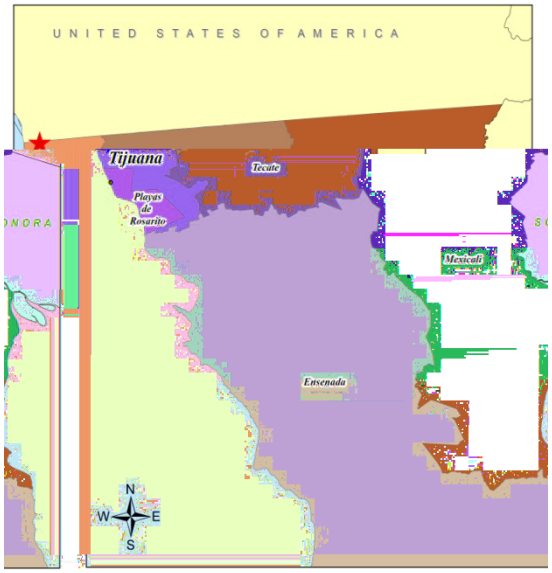
Project Name:	Expansion of the Wastewater Collection System for Coastal Areas in Tijuana, B.C.
Project Sector:	Domestic Water and Wastewater Hookups

1.b Project Category

Category:	Community Environmental Infrastructure Project – Community-wide impact

1.c Project Location and Community Profile

Community:	Municipality of Tijuana, Baja California, Mexico.
Location:	The project is located in the municipality of Tijuana, in the northwestern part of the State of Baja California, Mexico. Tijuana borders the United States of America –San Diego, California Metropolitan Area– to the north, the municipality of Playas de Rosarito to the south, the Pacific Ocean to the west, and the municipality of Tecate to the east.
Location within the border:	The project is located within the 100 km border area. The unserved areas of "El Monte" and "Granjas La Esperanza" are located within 6.5 km (4 miles) and 7.5 km (4.6 miles) respectively, southwest of the U.S.-Mexico International Border.
Figure:	The following figure shows the location of the municipality of Tijuana.



Tijuana, Baja California, México

Demographics

Current population:	1,540,072 residents
Growth rate:	3.00 %
Reference:	INEGI year: 2005, CONAPO 2008
Economically active population:	561,002 residents
Reference:	INEGI Year: 2004
Median per capita income:	$2,902 Pesos
References:	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:	Tijuana and Playas de Rosarito
Water System:	
Water coverage:[1]	93%
Current length of water pipelines:	247 Km
Water supply source:	Colorado River
Number of water hookups:[2]	475,022

[1] Source: CESPT, as of December 2007
[2] Source: CESPT as of February 2008

Wastewater Collection System:

Wastewater collection coverage:[3] 79.2 %
Length of sewage pipelines: 222 Km
Number of sewer connections:[4] 413,942

Wastewater Treatment :

Wastewater treatment coverage: 90%
Wastewater treatment process:

Plant	Technology	lps
SAB	Activated sludge	1,100
IWWTP	"	1,100
La Morita	"	254
Monte de los Olivos	"	460
Tecolote-La Gloria	"	380

Currently, most of the wastewater generated by Tijuana is collected by the existing wastewater collection system and conveyed by gravity and lift stations to the International Wastewater Treatment Plant (IWWTP) and the San Antonio de los Buenos (SAB) plant. Both plants discharge into the Pacific Ocean. The construction process for "La Morita" and "Monte de los Olivos" facilities is underway, and they are expected to start operating in 2008, while the Tecolote-La Gloria facility will be operational by 2009.

Solid Waste:

Solid waste collection coverage: 99%
Final disposal: Landfill

Street Paving

Street paving coverage: 44%

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

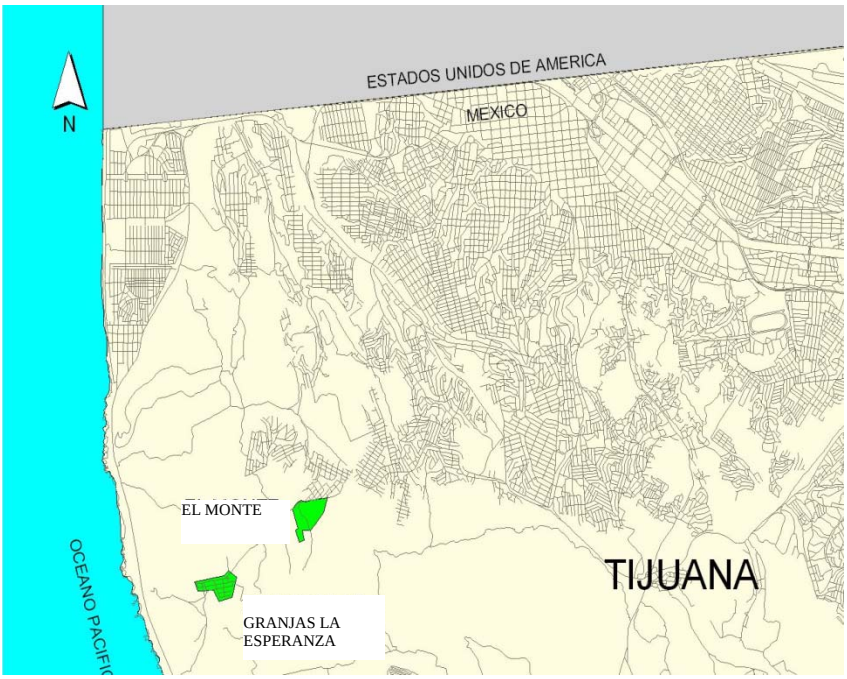
Compliance with agreements:
- 1889 International Boundary Convention
- 1944 Water Treaty
- 1983 La Paz Agreement, or Border Environment Agreement

[3] Source: CESPT, as of December 2007
[4] Source: CESPT as of February 2008

	- 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 a wastewater collection system for the areas El Monte and Granjas La Esperanza in the Municipality of Tijuana, Baja California. <u>Wastewater Collection</u> - Construction of sewer lines The project includes the installation of approximately 13,262 meters (43,510 ft) of wastewater collection (sewer) lines using PVC piping in diameters ranging from 20 to 38 cm (8 to15 inches). Wastewater generated in the project areas (5.5 lps, 0.125 MGD approximately) will be treated at the Tecolote-La Gloria and San Antonio de los Buenos wastewater treatment plants. These facilities will have adequate wastewater treatment capacity and will discharge the treated effluent into the Pacific Ocean.
Population served:	2,705 residents
Number of connections:	644
Project cost:	MX$ 18.13 million
Project map:	The following figure shows the location of the El Monte and Granjas La Esperanza areas within Tijuana's urban area.



El Monte and Granjas La Esperanza, Tijuana, BC.

1.f Project Justification

Project justification:

- Residents from the areas El Monte and Granjas La Esperanza currently lack wastewater collection services and as a result, rely on latrines, septic tanks, or discharges to open drains for wastewater disposal. The implementation of the proposed project will help provide access to appropriate wastewater collection services to approximately 2,700 residents (100% of residents of the project area); this action will in turn reduce human contact with contaminated water as well as with vectors of waterborne diseases such as pests and other organisms.

- The city of Tijuana has an estimated 20% wastewater collection deficiency. The implementation of the project will help reduce the backlog by installing approximately 644 new sewer hook ups.

- Approximately 5.5 lps (0.125 MGD) of the wastewater flow 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 these services jeopardizes the health of area residents, inasmuch as they are exposed to having contact with wastewater and thus are at risk of acquiring associated diseases. According to morbidity statistics for Tijuana (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 collection and treatment. Project area residents currently lack sewage services and discharge their wastewater to open air drains or rely on latrines and cesspools.
- Reduce the risk for the transmission of waterborne diseases caused by human contact with unsafe waters resulting from wastewater runoff resulted from the lack of wastewater collection in the project area.
- 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-002-ECOL-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges to urban or municipal wastewater collection systems.

2.b Human Health and Environmental Impacts

Human Health Impacts

Direct and indirect benefits:

- The project will 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 Tijuana. As shown below, the number of cases has dropped throughout the years and goes in hand with an increase in wastewater collection and treatment service coverage. Hence, an argument may be presented that projects of this nature contribute to improve the community's health conditions in addition to residents receiving wastewater collection service.

Table 2.1 – Waterborne Disease Statistics for Tijuana, B.C.

No. of Cases					
Disease	**2002**	**2003**	**2004**	**2005**	**2006**
Intestinal diseases by other organisms	52699	36130	22110	36930	33084
Other Helminthiasis	4215	3513	2500	1812	1651
Intestinal Amibiasis	3699	2881	1485	1715	1636
Scabiosis	3605	2140	1391	1187	1275

Source: Secretariat of Health, Epidemiological Surveillance Coordinating Unit, General Morbidity, New Cases. Tijuana 2002-2006

Environmental Impacts

Direct and indirect benefits:

The construction of new wastewater collection systems in Tijuana will reduce health and environmental risks associated to inadequate wastewater collection and lack of wastewater treatment. The proposed project will help CESPT collect and treat wastewater generated in the project area in compliance with existing federal and state laws and regulations.

Environmental impacts:

The project's implementation will help eliminate wastewater discharges to latrines or open drains, which in turn may positively impact ground and surface water bodies, inasmuch as wastewater produced in the project area will be collected and treated at the SAB and Tecolote-La Gloria WWTP's, an action that will help improve the quality of water in rivers and creeks, and ultimately ocean waters in southwestern Tijuana.

Minor environmental impacts are anticipated from implementation of the different project phases, provided the project tasks are implemented in accordance with the specifications of the Transboundary Environmental Assessment and Mexico's Environmental Impact Document *Manifestacion de Impacto Ambiental* (MIA by

	its initials in Spanish) and taking into account the mitigation measures established in it. Potential impacts specified in the MIA 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:	- Application of treated wastewater to reduce fugitive dust emissions - Vehicle tune ups to reduce emissions - Placement of warning signage to prevent potentially hazardous situations
Impacts:	The environmental impact resulting from the project's implementation will be positive overall, inasmuch as: - The project will increase wastewater collection coverage, reducing environmental contamination and improving the quality of life of area residents by curtailing potential health hazards.
Transboundary Impacts	
	Tijuana is contiguous to the border, neighboring the city of San Ysidro, and therefore, there are frequent border crossings between the United States and Tijuana. The construction of new wastewater collection systems in currently unserved areas will have a direct positive impact on the health of residents of San Ysidro, 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 project's implementation will reduce the potential for contamination of local and shared water bodies, including the Pacific Ocean.
Formal Environmental Clearance	
Environmental clearance:	Pursuant to the provisions of the Law of Environmental Protection for the State of Baja California regarding the environmental impacts of this project, the Secretary of Environmental Protection for the State of Baja California (SPA) established, through an official communication, that the project requires a *Manifestacion de Impacto Ambiental*

	(MIA), an Environmental Impact Statement in the General Modality, which was prepared and submitted to the SPA on June 28, 2006. Authorization for the project was issued on October 19, 2006 through Finding No. SPA-TIJ-3267/06, 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 September 17, 2008 to receive comments related to the environmental assessment and its Finding of No Significant Impact (FNSI). By October 22, 2008 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 construction of a wastewater collection system for the areas El Monte and Granjas La Esperanza, within the municipality of Tijuana, Baja California.

Project Development Requirements

Design criteria:

The project was developed pursuant to the Technical Standards for Sanitary Wastewater Collection Projects issued by Baja California's Secretariat of Infrastructure and Urban Development, technical specifications contained in the Wastewater Collection and Treatment Manual prepared by CONAGUA's Technical Directorate, and Official Mexican Standard NOM-001-CNA-1995 "Sanitary Sewerage System – Specifications for Hermeticity." Final designs were validated by CONAGUA and reviewed by BECC and NADB.

The project proposes the installation of sewer lines in el Monte and Granjas la Esperanza that will discharge in existing collectors and will convey by gravity approximately 5.5 lps (0.125 MGD) of wastewater generated in the project areas. The flows generated at Granjas la Esperanza will be treated at the San Antonio de los Buenos WWTP, while the flows generated at El Monte will be treated at the Tecolote-La Gloria WWTP. Both facilities will have sufficient capacity to treat these flows.

The project includes the following components:

<u>Wastewater Collection</u>
Construction of sewer lines
- Length: 13,262 m (43,510 ft)
- Diameter: 20-38 cm (8”-15”)
- Material: PVC

The project proposed herein considers wastewater collection and treatment in existing or under construction wastewater treatment plants. The San Antonio de los Buenos WWTP consist of a lagoon system that provides secondary treatment prior disposal to the Ocean. The Tecolote-La Gloria treatment plant will provide advanced secondary treatment using oxidation ditch-activated sludge and technology and filtration at the end. This will allow the effluent to comply with NOM-003 for reuse. The sludge generated in the plants will be managed, treated and disposed according to the NOM-004.

The project applicant will carry out supplementary tasks that are not part of the project submitted for Border Environment

Infrastructure Fund (BEIF) grant funding. These tasks include the construction of the La Morita and Monte de los Olivos wastewater treatment plants that will free up capacity in the San Antonio de los Buenos facility as well as the construction of the Tecolote-La Gloria WWTP.

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 equipment with low energy consumption, and sensors to control light operation.

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

Appropriate Technology

Assessment of alternatives:

As part of the project's development, the considered alternatives for the wastewater collection expansion were evaluated based on the following parameters:

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

The alternative analysis considered the use of pipe materials in compliance with norms and current regulations. PVC and Asbestos-cement 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 reduced to the minimum as well as crossing with drinking water pipes and telephone lines. Pipe diameters were calculated using slopes and velocities accordingly to avoid silt build up (septic conditions) and at the same time minimize ditch works and the use of lift stations. Maximum flow rate was also considered for pipe requirements.

Treatment capacity was also considered and pipe layout was designed based on existing right of ways, according to Urban land use plan.

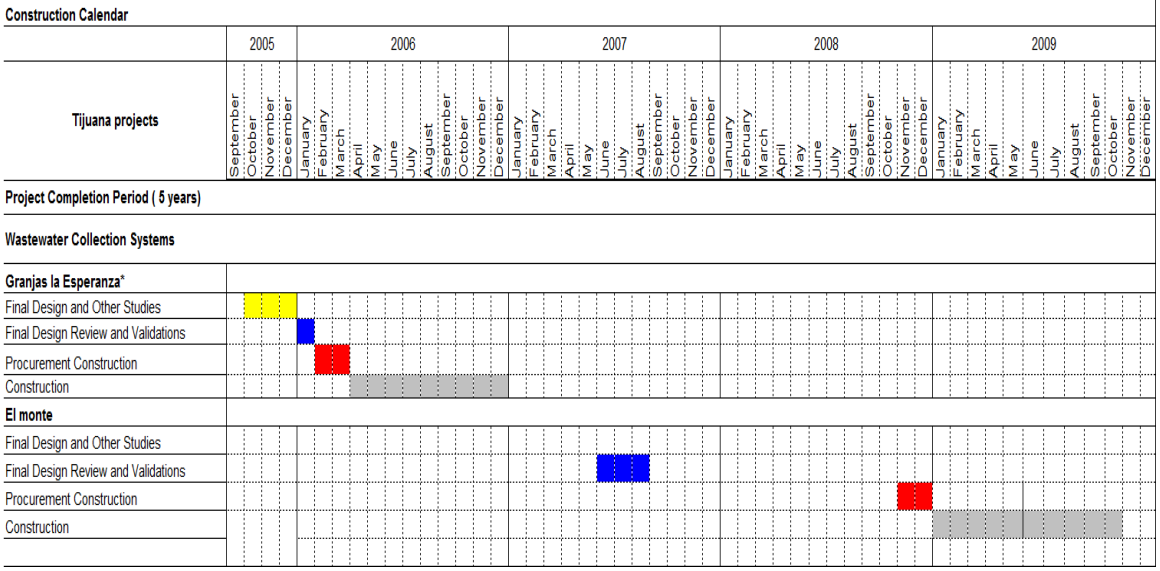
Based on the design criteria mentioned above, an alternative was chosen and final design was developed, considering also any negative environmental impact, according to the specifications of the MIA requested by the Baja California Environment Protection Secretariat.

Property and Right-of-Way Requirements

Requirements:

- Inasmuch as wastewater collection lines will be laid on existing municipal rights of way and easements, no additional land needs to be purchased for the project.
- The utility needs permits from the municipality to construct in the right of ways and street closures.

Project Tasks and Timelines



Some components of the project have been constructed and were accepted as a match funds by EPA.

3.b Management and Operations

Project Management

Resources:

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

Operation and Maintenance

Organization:

CESPT serves approximately 414,000 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 applicant has a pretreatment program to control discharges from the industry and small businesses.
Operation plan:	The applicant 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 applicant has the following documentation available: - Water withdrawal permit (CONAGUA) - Wastewater discharge permit (CONAGUA) - Technical file validation issued by CONAGUA - Federal Environmental Clearance - 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 Proof of Financial Feasibility

Financial Conditions

Information submitted:

The financial structure was analyzed together with the project Expansion of the Wastewater Collection System for Areas in the Tijuana River Basin, since both projects are going to be constructed in parallel and will be managed by the same sponsor. The North American Development Bank (NADB) has reviewed the financial information submitted by the Comisión Estatal de Servicios Públicos de Tijuana, Baja California (CESPT) and based on it, determined that the financial structure proposed for these projects is adequate. The information submitted and the financial analysis includes:

i) Historical financial statements;
ii) Credit ratings;
iii) Project's financial structure;
iv) Capital investment budget;
v) Historical and pro forma operation and maintenance budget; and
vi) Economic and demographic information about the project area

A detailed analysis of financial information for these projects is included in the loan proposal that will be submitted to the NADB Board for authorization.

Results of the analysis:

Overall, CESPT presents essentially solid financial and commercial indicators. In addition, the utility has a high degree of institutional development and sufficient financial and administrative capacity to implement the infrastructure projects programmed in its capital investment plan. The historical financial analysis reveals that CESPT has been able to successfully carry out its operations and has met all its financial obligations in the past. Furthermore, its management has taken cost control measures that have impacted positively the organization's financial outcomes. In the future, cost increases associated to a growing demand for services are expected to be offset with gradual user fee increases.

The financial plan submitted by CESPT is expected to generate enough income to meet the utility's financial obligations with satisfactory cash flow levels. Financial projection results indicate that the projected income will be sufficient to achieve the proposed financial objective. Overall, CESPT's plan reflects a stable revenue stream with a tendency towards continued growth.

Project Costs, Financial Structure, and Other Capital Funding Plans

Item:	Tijuana Projects (Coastal & Tijuana River Basin)	Tijuana (Coastal Areas)
Design cost:	MX$ N/A	MX$ N/A
Construction cost:	MX$ 109.46 million	MX$ 18,138,124.00
Construction management, oversight, tax, and contingency costs:	MX$ 24.98 million	

Final cost: ***MX$ 134.44 million***
(corresponding to the Coastal and Tijuana River Basin Areas)

Funding structure: ***Tijuana Projects:***

Source	Type	Amount MX$ Million	%
Mexico (CESPT-EDO-FED)	Internal Cash Flow Funds / Grants	67.57	50
NADB Loan	Loan	31.25	23
BEIF-NADB	Grant	35.62	27
Total:		134.44	100.0

Primary Source of Income

Source of income: User fees payable to CESPT for water services.

4.b Legal Considerations

Project management: The project will be managed by CESPT, a utility that has adequate staff to manage the contracting and construction of the proposed infrastructure, as well as the capacity to address any potential emergencies related to the project's operation and maintenance.

Status of Funding Agreements: The BEIF Grant Agreement will be signed once the projects obtain BECC certification.

The Loan Agreement will be signed once the projects are certified by the BECC and CESPT is issued authorization by the Baja California State Congress to execute the project's loan component.

Pending Issues:

None

Criterion Summary:

The project complies with BECC's Financial Feasibility criteria

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 28, 2008 at a meeting held in CESPT facilities.

Local Steering Committee Members: The Local Steering Committee is comprised of the following individuals:

Chairperson:	Ofelia Montoya Arias,
Vice-Chair:	Rosa Emilia Rivera Cruz
Treasurer:	José Luis Saldaña Sánchez
Secretary:	Maria de Jesús Aragón Reyes
Alternates:	Juan Manuel Alvarez
	Ana Teresa Ruiz Zapata

Other members: Agustín Rojas Arieta, Technical Secretary

Date of approval of Public Participation Plan: The Comprehensive Community Participation Plan developed by the Local Steering Committee was approved by the BECC on March 11, 2008.

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 applicant, prepared the following:

- Flyers
- PowerPoint 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

First Public Meeting: Advance notice to announce the First Public Meeting was published in "El Mexicano," a local newspaper, on 03/11/08. The first meeting was used to inform the public about the technical aspects of the project. The meeting was held at 10:00 am on April 11, 2008 at the CESPT parking lot. Attendees included the Local Steering Committee, as well as CESPT representatives. The meeting was attended by 89 residents who answered project surveys. 100% of those surveyed (73 persons)

	said they were able to fully understand the project and explicitly expressed their support.
Second Public Meeting:	A Second Public Meeting was held on September 18, 2008. The second public meeting was used to inform the community of the project's financial components. To the event assisted 121 people and 100% people surveyed expressed that understood the project and supported it.
Final Public Participation Report	
Final report:	The Local Steering Committee and the applicant 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 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:

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 applicant will be the agency responsible for operating and maintaining the system as it relates to:

- Wastewater treatment
- Water distribution
- Wastewater collection

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

- Proposed wastewater treatment system
- Proposed wastewater collection system
- Proposed water treatment system
- Proposed water distribution system
- The applicant 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 Comisión Estatal de Servicios Públicos de Tijuana (CESPT) include:

- Provide and improve water, wastewater collection, and treatment services in a continuous, efficient, and cost-effective manner.
- Operate a water, wastewater collection and treatment system that meet applicable local, state, and federal regulations.
- Operate a wastewater collection and treatment system that meets regulations applicable to the utility's operating staff throughout its different areas, to provide essential services that meet the needs of the community.
- Provide training and education for the utility's operating staff throughout its different areas, to provide essential services that meet the needs of the community.
- Optimize the use of scare water resources, and raise public awareness about the importance of water for the development of the community.
- Basic technical training to the operations and maintenance staff responsible for the new infrastructure that will be built as a result of the project's implementation.

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 natural resources among the community.

There is also a water reclamation program call "Proyecto Morado" this programs includes the development of studies to find reuse alternatives and its implementation. Currently the sponsor uses 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 sets forth the need to develop basic sanitary infrastructure in Tijuana, such as wastewater collection and treatment services.

The implementation of the project will eliminate risks inherent to inappropriate wastewater management, and treated water will be available for other uses. That will reduce drinking water use for these 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 area by the PNH due to its bi-national condition due to shared water body in the Pacific Ocean.

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 project contributes to reduce environmental deterioration by installing pipelines that will collect and convey wastewater to treatment facilities, so as to reduce contamination to water bodies and human health hazards resulting from the discharge of raw wastewater.
- 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 the new 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 to 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 sanitary 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 water 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 growth of areas that currently lack this service 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 system for the Colonias El Monte y Granjas La Esperanza developed by the CESPT, 2006, 2007.

- "Transboundary Environmental Assessment (EA) for Coastal Tijuana Wastewater Collection Improvement Projects", September 2008, and FNSI

- Manifestación de Impacto Ambiental, Oficio SPA-TIJ-3267/06, Octubre 2006.

- Master Plan for Water and Wastewater management, for Tijuana and Playas de Rosarito, CDM 2003

- Environmental Assessment Tijuana and Playas de Rosarito Potable Water and Wastewater Master Plan, CDM 2003

- Public Participation Report