



CERTIFICATION AND FINANCING PROPOSAL

BASIC URBAN INFRASTRUCTURE PROJECT PLAYAS DE ROSARITO, BAJA CALIFORNIA

Revised: April 17, 2015

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EXECUTIVE SUMMARY

BASIC URBAN INFRASTRUCTURE PROJECT PLAYAS DE ROSARITO, BAJA CALIFORNIA

- Project:** The proposed project consists of basic urban infrastructure in the municipality of Playas de Rosarito, Baja California, which includes increasing and improving street paving coverage and other roadway work, replacing aging water and wastewater infrastructure and improving the public lighting system, along with the acquisition of equipment to support adequate operation and maintenance of the infrastructure (the “Project”).
- Project Objective:** The purpose of the Project is to improve air quality and promote efficient urban mobility by increasing and improving street paving coverage and roadway infrastructure in the city; improve water distribution and wastewater collection services; and improve the energy efficiency of the public lighting system.
- In order to achieve the project objective, an existing NADB loan will be refinanced to obtain a longer term and better financial conditions, thereby allowing the Municipality to apply part of the savings toward investments to meet these additional infrastructure needs.
- Expected Project Outcomes:** The new infrastructure works included under the Project are expected to generate environmental and human health benefits related to the following project outcomes:
- a) Paving of dirt roads, paving rehabilitation and other roadway improvements are expected to contribute to the reduction of 32.8 metric tons/year of PM₁₀, 77.43 kg/year of volatile organic compounds (VOC), 491 kg/year of carbon monoxide (CO) and 157.54 kg/years of nitrogen oxides (NOx).
 - b) Replacement of approximately 627 meters (2,057 linear feet) of water pipelines and 11 water hookups will ensure reliable water service.
 - c) Replacement of approximately 412 meters (1,351 linear feet) of sewer lines and 30 wastewater connections will reduce the likelihood of sewer breaks and spills, and thus the risk of exposure to untreated wastewater.
 - d) Replacement of street lighting equipment will reduce

electricity consumption by approximately 64,014 kWh/year, resulting in an estimated displacement of 33 metric tons/year of carbon dioxide (CO₂) and 0.05 metric tons/year of NOx.¹

- Population Benefited:** 90,668 residents of Playas de Rosarito, Baja California.²
- Sponsor:** Municipality of Playas de Rosarito, Baja California.
- Borrower:** Municipality of Playas de Rosarito, Baja California.
- Estimated Project Cost:** The total cost of the Project is estimated at \$262.3 million pesos (US\$17.49 million), which includes \$76.7 million pesos (US\$5.1 million) for the construction of the new infrastructure works and equipment.³
- Estimated Loan Amount:** \$247.1 million pesos (US\$16.47 million), which includes \$61.5 million pesos (US\$4.1 million) for the new infrastructure and equipment.

Uses & Sources of Funds:
 (Millions of pesos)

Uses	Amount	%
Loan refinancing, including hedge breakage costs*	\$ 185.6	70.8
New infrastructure works**	76.7	29.2
TOTAL	\$ 262.3	100.0
Sources	Amount	%
NADB loan – refinancing	\$ 185.6	70.8
NADB loan – new infrastructure works	61.5	23.4
Federal funds***	15.2	5.8
TOTAL	\$ 262.3	100.0

* Loan amount is based on an outstanding balance of \$169.23 million pesos as of March 1, 2015, plus estimated hedge breakage costs, which will depend upon market conditions at the time the actual loan refinancing occurs.

** Includes design, construction, equipment, supervision, contingencies and taxes.

*** Represents 19.8% of the cost of the new infrastructure works.

¹ Sulfur dioxide (SO₂) emission reductions are not included for these Projects due to the minimal emission reduction.

² Source: The Mexican national statistics institute, *Instituto Nacional de Estadística y Geografía* (INEGI), 2010 census.

³ Unless otherwise noted, all U.S. dollar figures are quoted at an exchange rate of \$15.00 pesos per dollar, according to Bloomberg as of February 19, 2015.

CERTIFICATION AND FINANCING PROPOSAL

BASIC URBAN INFRASTRUCTURE PROJECT PLAYAS DE ROSARITO, BAJA CALIFORNIA

1. ELIGIBILITY

Project Type

The new infrastructure works included under the Project fall within the eligible sectors of air quality, water and wastewater, and clean and efficient energy and will be categorized as basic urban infrastructure.

Project Location

The Project is located approximately 21 km (13 miles) south of the U.S.-Mexico border in the municipality of Playas de Rosarito in the state of Baja California, Mexico.

Project Sponsor and Legal Authority

The Project Sponsor is the Municipality of Playas de Rosarito (the “Municipality” or the “Sponsor”), a public entity legally constituted in accordance with Articles 40 and 43 of the Constitution of the United Mexican States. The Sponsor has full authority to manage public resources and to promote actions and projects that improve municipal services, as set forth in Article 115, Section III b), of the Mexican Constitution, which states that municipalities will be responsible for the operation of public services. In addition, Article 85 of the Baja California State Constitution states that municipalities shall freely manage their own financial resources. On November 7, 2014, the XXI Constitutional Legislature of Baja California authorized the Municipality to refinance its existing loan with NADB and request additional financing to carry out the new infrastructure works included under the Project.

2. CERTIFICATION CRITERIA

The information in Sections 2.1 and 2.2 of this proposal pertains solely to the new infrastructure works to be partially funded with the proposed loan. The works funded and constructed with the proceeds of the existing NADB loan were certified October 30, 2007 through Board Resolution 2007-33 and were completed in July 2012.

2.1. TECHNICAL CRITERIA

2.1.1. Project Description

Geographic Location

Playas de Rosarito is located 21 km (13 miles) south of the U.S.-Mexico border on the Pacific coast in the northwestern region of the Baja California peninsula. Playas de Rosarito is bordered by Tijuana to the north, east and southeast and by Ensenada to the southwest. Figure 1 shows the geographic location of Playas de Rosarito.

Figure 1
PROJECT VICINITY MAP

General Community Profile

According to the 2010 census conducted by the Mexican national institute for statistics, INEGI, Playas de Rosarito has a population of 90,668, representing 2.87% of the state's population. The main economic activities are commerce, tourism and services, which employ 61% of the local workforce, while manufacturing and power generation employs 36%, and agriculture 3%.⁴

The city has shown positive economic development in recent years with new tourist areas emerging along the coast. In addition, the city has experienced growth in the manufacturing industry, influenced by the installa

In May 2014, Playas de Rosarito published the 2014-2016 Municipal Development Plan (MDP) which describes the goals and development objectives for the municipality, including the existing condition of public services and the strategies for improving them, such as paving and rehabilitation of streets, implementation of efficient public lighting and storm water management. Table 1 summarizes the status of public services and infrastructure in the Project area.

**Table 1
 BASIC PUBLIC SERVICES AND INFRASTRUCTURE IN PLAYAS DE ROSARITO**

Water System*	
Coverage	92%
Supply source	Colorado River and Rosarito Aquifer
Residential hookups	32,191
Total hookups	34,342
Wastewater Collection System*	
Coverage	65%
Residential connections	22,607
Total connections	24,405
Wastewater Treatment	
Coverage	99.1% of collected wastewater
Paving **	
Coverage	22% of the urban area
Urban lighting**	
Coverage	70.7% (2013)

* Source: Local water utility, CESPT, 2014.

** Source: MDP, 2014-2016.

According to the MDP, existing road infrastructure is insufficient for the traffic volumes. There is a large deficit of paving coverage throughout urban residential areas, as well as some high-traffic paved areas with poor surface conditions. The plan also indicates that street light service coverage in 2013 was 70.7%, with approximately 4,568 installed lamps.

In recent years, the municipality has experienced accelerated growth that has increased the need for additional urban infrastructure, as well as municipal services and maintenance activities. Without new infrastructure investments, the Sponsor expects increased deterioration of the urban landscape and pollution problems. The Project will directly benefit the residents of Playas de Rosarito by enhancing the urban infrastructure, thus reducing traffic congestion and emissions of dust particles and others pollutants, as well as improving water and wastewater infrastructure. Furthermore, the Project will improve public lighting conditions and will provide equipment to address adequate maintenance of the city infrastructure.

Project Scope and Design

The Project consists of three main components: 1) street paving and roadway improvements, including the acquisition of equipment to support operation and maintenance of this infrastructure; 2) water and wastewater infrastructure rehabilitation; and 3) street lighting, including the acquisition of operation and maintenance equipment. The roadway improvement component represents 84% of the cost of the new infrastructure and equipment included in the Project, while street lighting accounts for 15% and water and wastewater works for 1%.

Street Paving and Road Improvements

The Sponsor has made ongoing investments in street paving and roadway improvements, including works previously certified by BECC and financed by NADB in 2007, which have been completed. The paving activities included in the Project will provide necessary rehabilitation in existing high-traffic roadways in densely populated areas, as well as providing new paving coverage in residential areas, increasing access to basic road infrastructure and reducing exposure to harmful PM₁₀ emissions.

The proposed Project includes first-time road paving for an area of approximately 34,518 square meters (approximately 2.8 linear kilometers), the rehabilitation of approximately 39,676 square meters (approximately 2.6 linear kilometers) of paved roads in poor conditions, and other works to improve and maintain sufficient mobility. The Municipality has already completed approximately 23,300 square meters (approximately 2.2 linear kilometers) of new paving works included in the Project. This component also includes the acquisition of operation and maintenance equipment to support this infrastructure, including a dump truck, a water truck, a skid steer loader and two street sweepers. Table 2 provides detail on paving works and road improvement activities.

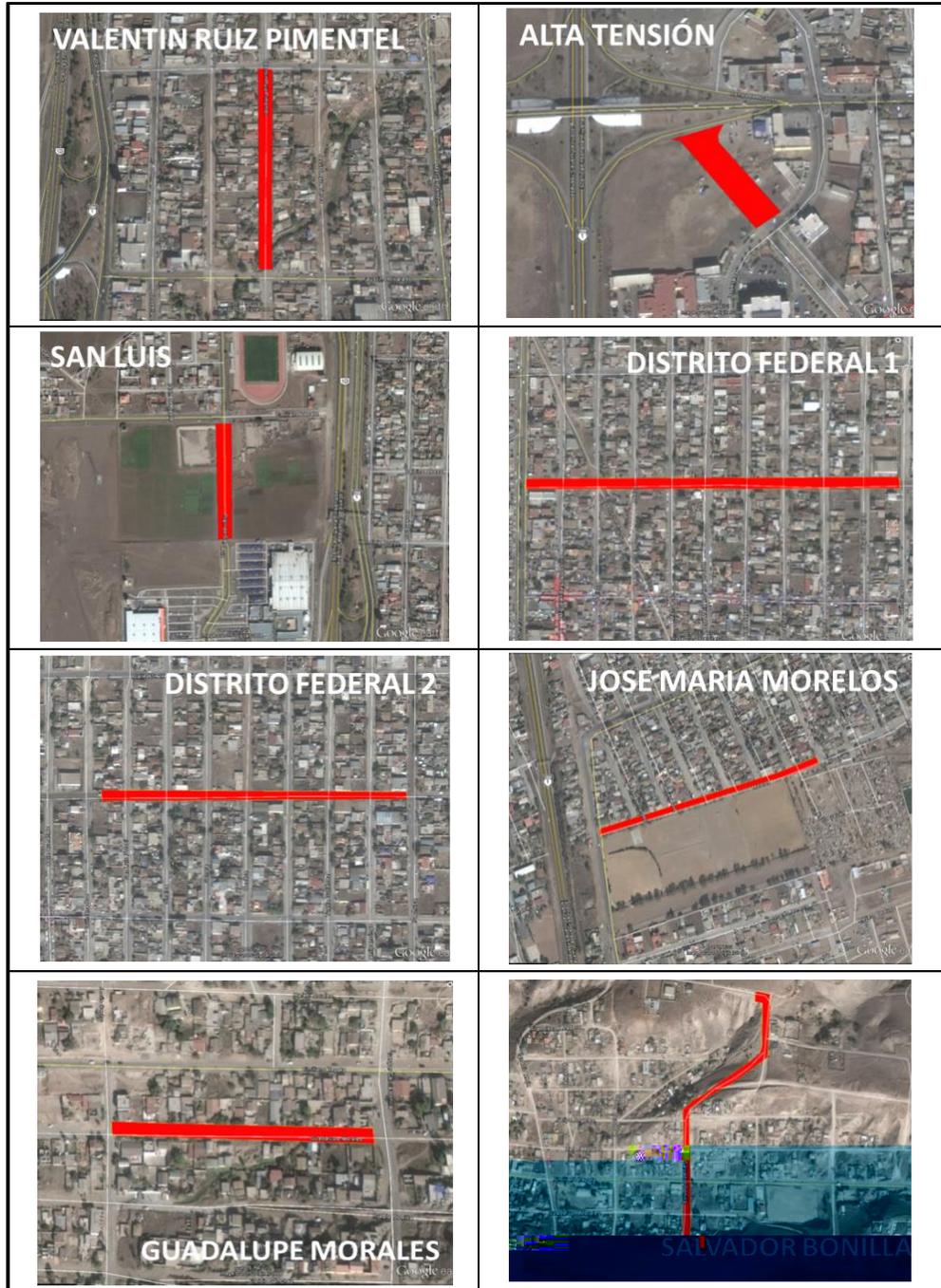
**Table 2
PAVING WORKS**

Paving Works	Type / Materials	Status *
Cauhtémoc	Rehabilitation, asphalt concrete	Pending
Emiliano Zapata	Rehabilitation, asphalt concrete	Pending
Calle Lazaro Cardenas	Rehabilitation hydraulic concrete	Pending
Zona Rosarito	Rehabilitation asphalt concrete	Pending
Valentin Ruiz Pimentel	First-time paving, hydraulic concrete	Pending
Conexión Alta Tensión	First-time paving , hydraulic concrete	Pending
Calle Plan de San Luis	First-time paving hydraulic concrete	Pending
Calle Distrito Federal 1st phase	First-time paving, hydraulic concrete	Completed
Calle Distrito Federal 2nd phase	First-time paving, hydraulic concrete	Completed
José María Morelos	First-time paving, hydraulic concrete	Completed
Calle Guadalupe Morales	First-time paving, hydraulic concrete	Completed
Calle Salvador Bonilla	First-time paving, hydraulic concrete	Completed
Roadway Improvements	Type / Materials	Status
Miguel Hidalgo intersection	Rehabilitation, hydraulic concrete	Pending
La Reforma intersection	Rehabilitation, hydraulic concrete	Pending
Pedestrian bridge	Concrete and steel rod	Pending
TOTAL		74,194 m²

*Completed works are included as Sponsor participation in Project, not for reimbursement by the loan.

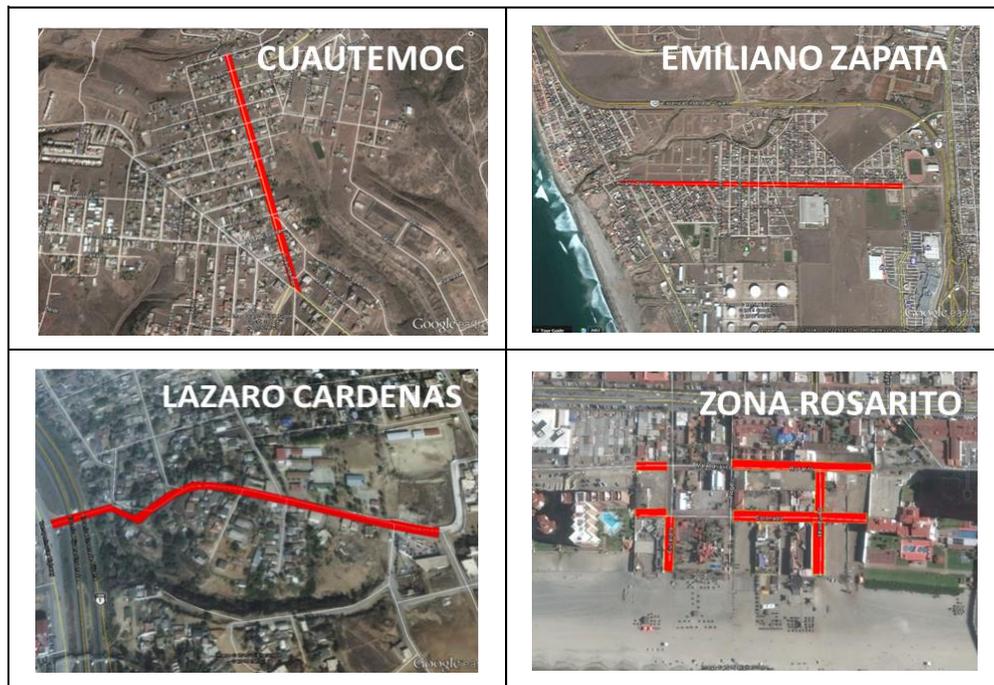
The Project will help to relieve traffic congestion and improve urban mobility for residents by increasing paving coverage of strategic roadways within urban residential areas and providing roadway connectivity to main roads. The areas targeted for the paving and listed in Table 2 are illustrated below.

Figure 2
STREET PAVING WORKS



Rehabilitation work will be implemented in high-traffic streets in poor condition with problems such as potholes and cracking. These roads, which were paved more than ten years ago, connect to major intercity roadways such as Boulevard Benito Juarez and provide accessibility to residents of highly populated areas, as well as to tourists and local visitors. The areas listed for paving rehabilitation in Table 2 are illustrated below.

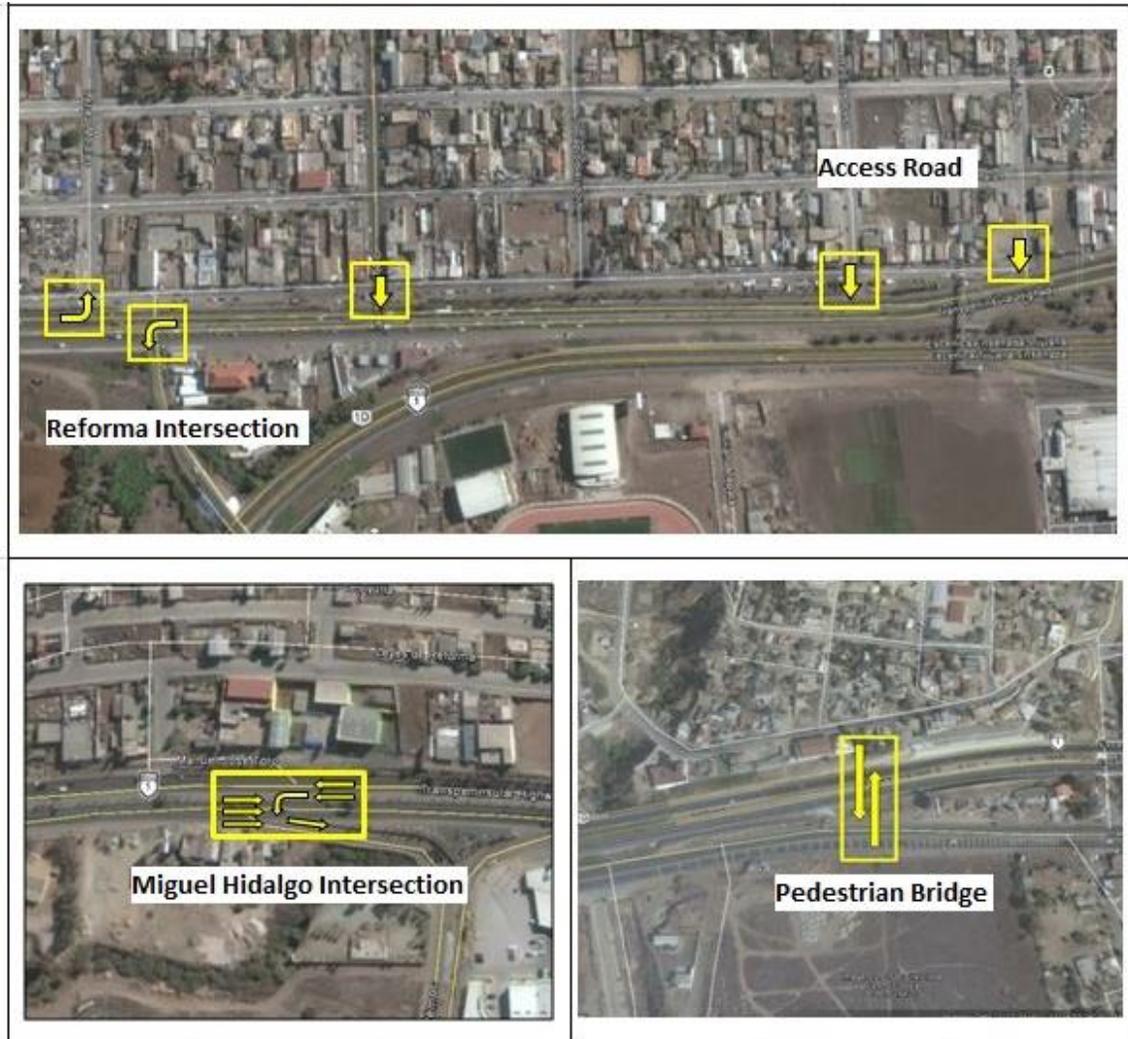
Figure 3
PAVING REHABILITATION WORKS



Finally, intersection improvements and the proposed pedestrian bridge are necessary to alleviate congestion caused by disruptions in traffic flow. The intersections are located on the main intercity road, Blvd. Benito Juarez. Works include the construction of three turn lanes and paving to three existing access roads, to facilitate access to and from the high-density neighborhoods of Reforma and El Florido, where there is a concentration of 13,000 inhabitants.

The pedestrian bridge will span the Tijuana-Ensenada state highway and toll road, which serve thousands of users a day and connect the urban areas of Tijuana and Rosarito. This infrastructure will provide safe access to approximately 1,760 residents from nearby areas to public transportation and places of employment. As described by the Sponsor, the pedestrian bridge will provide a safe option to residents who often cross this major highway, causing fatal accidents and/or disrupting traffic flows. Constructing a pedestrian bridge avoids the disruption to traffic flows that would result from installing a traffic signal. The location of the pedestrian bridge and intersection improvements are illustrated in Figure 4.

Figure 4
ROAD IMPROVEMENTS



Road paving will entail traditional construction processes using hydraulic and/or asphalt pavement and the necessary components to support vehicle traffic flows, in accordance with applicable local, state and federal standards and regulations currently in force. The Sponsor has been coordinating with the local water utility, CESPT, to ensure that all streets targeted for new paving or rehabilitation work have adequate water and wastewater infrastructure prior to construction. Specifically, the water and wastewater component of this Project (described below) is directly related to implementing underground infrastructure improvements in coordination with the anticipated paving works in the Zona Rosarito area.

Water and Wastewater Infrastructure

The Project includes the rehabilitation of aging water and wastewater infrastructure in the area known as “Zona Rosarito” prior to initiating any paving or rehabilitation works. This component consists of replacing approximately 627 meters (2,057 linear feet) of water pipelines and 11 water hookups and 412 meters (1,351 linear feet) of sewer lines and 30 wastewater connections. The wastewater flows generated by this area are conveyed to the existing Rosarito I Wastewater Treatment Plant. These works will be completed by the Sponsor in close coordination with CESPT.

Street Lighting

The Project includes the purchase and installation of more efficient street lighting technology to replace 396 lamps used in the current street lighting system. The current lamps use 250-watt, high-pressure sodium (HPS) technology and will be replaced by 213-watt LED lamps. These luminaires are located along the main street of the city. This type of investment was envisioned as part of a previous certification and financing proposal that was not implemented; however, part of that scope will be implemented under this Project.

Existing infrastructure (such as the power system, transformers, bases and poles) will be used, with the exception of the wiring that will be replaced based on the design specifications of the new lamps. The Sponsor has indicated that functional old lamps will be used to replace malfunctioning lamps in other areas of the city and unusable lamps will be disposed of in accordance with existing solid waste management regulations. This component also includes the acquisition of two basket crane trucks to support the operation and maintenance of this infrastructure.

Construction permits for all works have been approved by the Municipality. NADB's procurement policies will be applied to ensure the sound selection of goods, works and services required for Project implementation. Table 3 shows the proposed schedule for Project implementation.

Table 3
PROJECT MILESTONES

Key Milestones	Status
Procurement	Second quarter of 2015
Construction period	Not to exceed 12 months

The construction activities supported by the NADB loan are expected to start in May 2015 and be completed in the first quarter of 2016.

2.1.2. Technical Feasibility

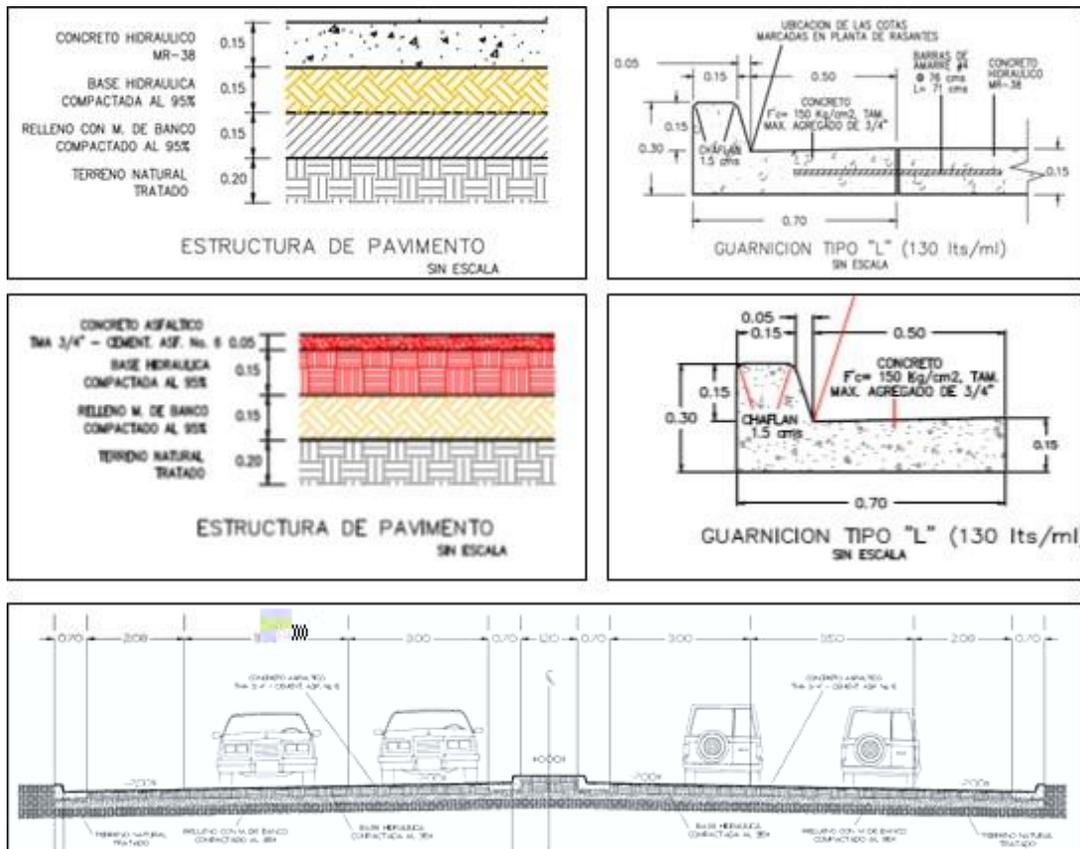
Selected Technology

Street Paving and Roadway Improvements

The paving works proposed are consistent with standard engineering practices and comply with applicable local regulations. Standard street paving designs were used as the basis for developing the final designs for selected streets. Final selection of the paving method and material was based on cost, availability, compatibility with existing infrastructure and ease of maintenance. Asphalt and hydraulic concrete were deemed the appropriate technology for the paving activities based on the availability of sufficient asphalt and concrete production in the city and the competitive cost advantage of using a local supply compared to other options.

The Project also includes curb plotting and leveling and the construction of hydraulic concrete curbs. The Municipality will be responsible for confirming that the paving works comply with the applicable specifications. If any subjacent infrastructure is required, it will be addressed prior to initiation of the paving works. Figure 5 illustrates design criteria and drawings used for streets within the scope of this Project.

Figure 5
PAVING DETAILS

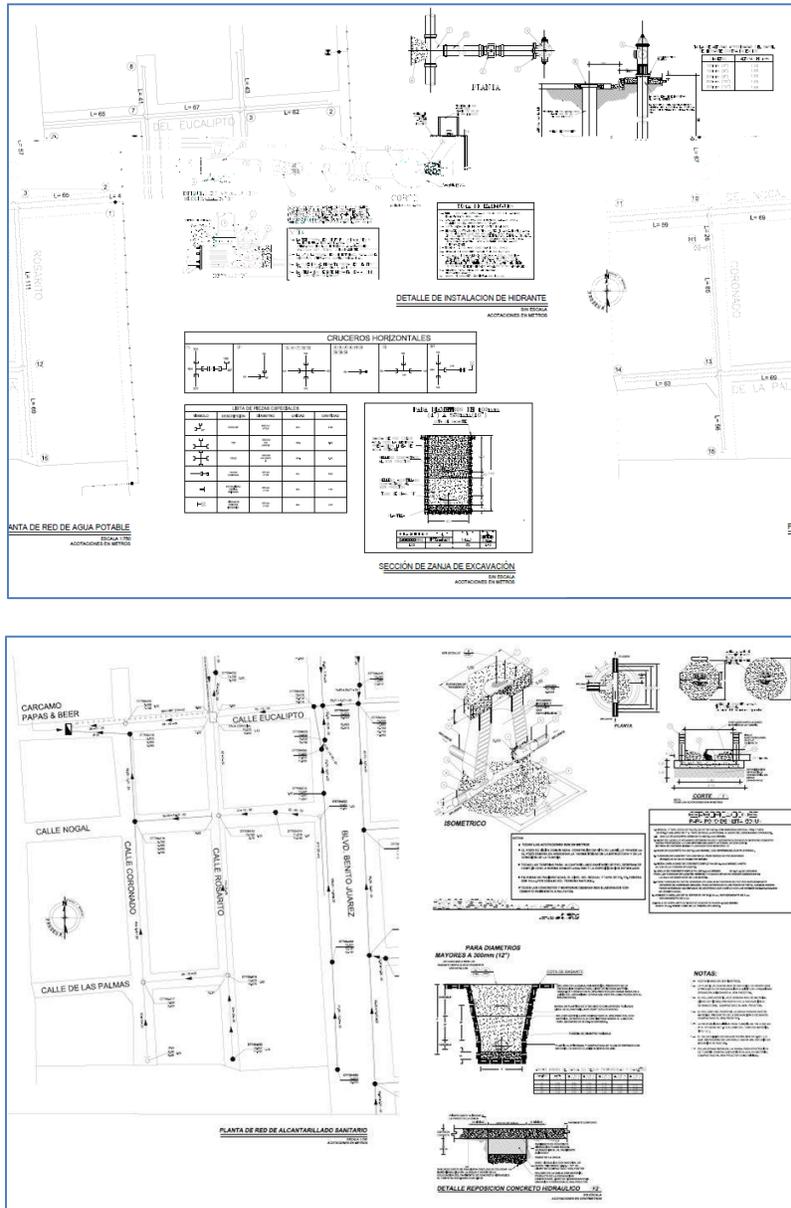


Source: Final Design Drawings, Playas de Rosarito.

Water and Wastewater Infrastructure

The Sponsor, in coordination with the local water utility (CESPT), evaluated water and wastewater improvements based on the compatibility of materials and construction practices with the existing infrastructure. The final designs of the proposed works were completed in accordance with the technical specifications of the water and wastewater guidelines developed by the State of Baja California.

Figure 6
WATER AND WASTEWATER WORKS



Source: Final Design Drawings, Playas de Rosarito

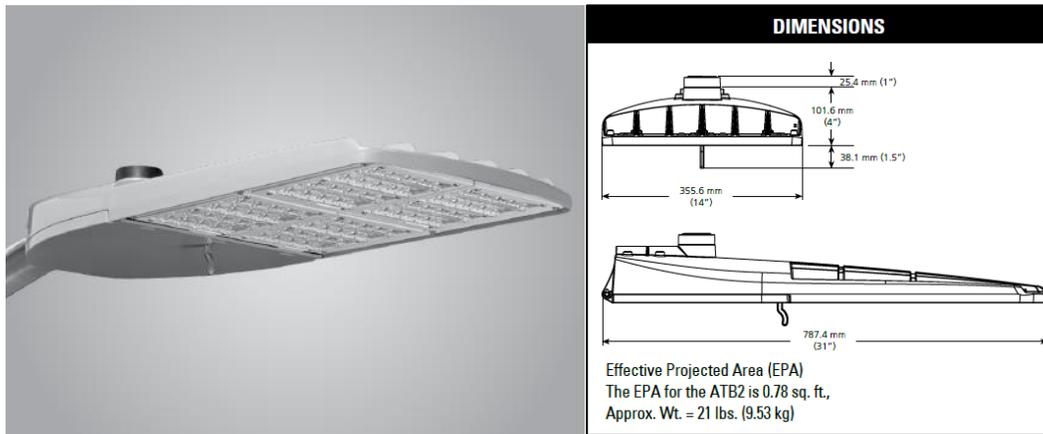
Street Lighting

The proposed LED technology for street lighting is based on recommendations and ratings issued by Mexico's National Commission for Efficient Energy Use (CONUEE). LED-based lamps have a longer life span and a higher color rendering index than other technologies, produce white light, have instantaneous ignition and do not use mercury.

The Municipality will comply with the following Mexican standards applicable to the purchase and installation of lighting equipment:

- Mexican Official Standard NOM-001-SEDE-2005, Article 930, Street Lighting, which defines the specifications, features, lighting values and general parameters for street lighting systems and equipment.
- Mexican Official Standard NOM-013-ENER-2004, Energy Efficiency S 2

Figure 7
LAMP MODEL FOR THE PROJECT



2.1.3. Land Acquisition and Right-of-way Requirements

The proposed Project will be developed within the urban area of the municipality of Playas de Rosarito and within existing rights-of-way. The Municipality has provided documentation, indicating that property ownership and appropriate access to rights-of-way for all works within the city have been secured, and no additional land or rights-of-way acquisition will be required. No rights-of-way are required for the street lighting component of the Project, which focuses on the purchase and replacement of luminaires for the existing street lighting system.

The construction of the pedestrian bridge will require the authorization of the Mexican Ministry of Communication and Transportation (SCT). The Sponsor indicated that final design has been completed and submitted to SCT for review. The Sponsor is working with this agency to obtain the authorization.

2.1.4. Management and Operations

The Municipality has the legal authority to conduct procurement activities, as well as the infrastructure and operational staff required to manage all of the elements of the Project. During Project implementation, the Municipality will oversee the execution of the proposed construction tasks through the decentralized urban development agency PRODEUR, which is responsible for the municipal planning, procurement and supervision activities. The infrastructure will be maintained by the Municipality's Public Works Department, which is responsible for preventive and corrective maintenance of roadways and the public lighting system and has an operating budget approved each year to perform this work. Upon completion, CESPT will be responsible for maintaining and operating the water and wastewater works, in compliance with the operations program and subprograms in place for each specific type of infrastructure.

2.2 ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

The Project will be implemented in an urban area that has been previously impacted and is not part of protected natural areas or regions considered a priority for biodiversity. For the types of works included in this Project, the Sponsor typically obtains authorization from the Municipality's environmental office, *Jefatura de Gestion Ambiental*, whereby this environmental authority indicates that paving projects or similar works in previously disturbed areas do not require the development and submission of an environmental impact study.

The paving component of the Project will support compliance with Official Mexican Standard NOM-025-SSA1-1993, which establishes the criteria for evaluating ambient air quality and the permissible level for concentrations of total suspended particles (TSP), including particles below 10 microns (PM₁₀), with a permissible limit of 150 µg/m³ in a 24-hour period, once a year.

The water and wastewater component of the Project will comply with the following environmental laws and regulations:

- Official Mexican Norm NOM-002-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into urban or municipal wastewater collection systems.
- Law Regulating Drinking Water Services in the State of Baja California, as amended in 2003, which establishes the operation, maintenance, monitoring and repair of water systems, as well as expansion works, the collection of fees for water service and the imposition of penalties for violation of this law.
- Technical Standards for Potable Water System Projects for the State of Baja California, as updated in 2008, which establish the guidelines, specifications and national and international standards that projects must meet in order to obtain approval from the competent authority.
- Technical Standards for Wastewater Collection System Projects for the State of Baja California, as updated in 2008, which establish the guidelines, specifications and national and international standards that projects must meet in order to obtain approval by the competent authority.

There are no environmental laws applicable to public lighting. However, this Project component will support better energy management practices. The federal government enacted the Law for Sustainable Energy Use in November 2008 to promote energy efficiency in all processes and activities, including generation and consumption. The law states that all actions leading to a reduction in the amount of energy required to meet a community's needs must be considered for implementation. Moreover, a high level of quality must be ensured to reduce negative environmental impacts resulting from energy production and distribution.

In addition, this Project component supports the Baja California Law for the Promotion of Energy Efficiency published in June 2012, which is aimed at achieving energy efficiency by promoting the sustainable use of energy in the state and municipalities through coordinated actions between the government and the general public.

Environmental Studies and Compliance Activities

The Project is located in previously disturbed urban areas, where only minimal impacts, primarily temporary impacts associated with construction, are anticipated. Based on past experience where the environmental authority has typically indicated that projects of this nature do not require the development and submission of an environmental impact study, the Sponsor submitted a letter requesting confirmation that no such study is needed. In response, the municipal environmental office issued environmental clearance documents for each proposed paving work.

In accordance with the practices recommended by the state environmental authorities, mitigation measures to address the temporary environmental effects of construction will be carried out, such as the use of gray water for construction activities and noise controls for vehicles.

With respect to the street lighting component, the Sponsor will dispose of the lamps removed from the lighting system through a service agreement with a company specializing in waste management. The service company will have the registrations and permits required for transporting the replaced lamps to the final disposal site, in compliance with current laws and regulations

Pending Environmental Tasks and Authorizations

There are no environmental authorizations pending.

Compliance Documentation

The following formal environmental authorizations have been obtained from the Municipality's Environmental Office for new infrastructure included in the Project:

- Environmental Clearance No. 013-2015, issued January 2015 for Calle Cuauhtémoc.
- Environmental Clearance No. 012-2015, issued January 2015 for Calle Emiliano Zapata.
- Environmental Clearance No. 010-2015, issued January 2015 for Calle Lazaro Cardenas.
- Environmental Clearance No. 022-2015, issued January 2015 for streets in the Zona Rosarito.
- Environmental Clearance No. 014-2015, issued January 2015 for Calle Valentin Ruiz Pimentel.
- Environmental Clearance No. 011-2015, issued January 2015 for Calle Conexión Alta Tensión.
- Environmental Clearance No. 008-2015, issued January 2015 for Calle Plan San Luis.

- Environmental Clearance No. 018-2015, issued January 2015 for the Miguel Hidalgo intersection.
- Environmental Clearance No. 017-2015, issued January 2015 for the La Reforma intersection.
- Environmental Clearance No. 009-2015, issued January 2015 for construction of the La Ladrillera pedestrian bridge.

2.2.2. Environmental Effects/Impacts

The Municipality of Playas de Rosarito has experienced rapid urban growth and development. Thus, it is critical to maintain adequate infrastructure to meet the demands of all segments of the population. The Project is intended to provide basic urban infrastructure by improving and rehabilitating roads to reduce the backlog in critical areas, improve water distribution and wastewater services in older areas of the city and promote energy efficiency in the public lighting system.

Existing Conditions and Project Impact – Environment

The Municipality of Playas de Rosarito has experienced rapid population growth, which is reflected in the traffic volumes that affect the conditions and capacity of the existing roadway infrastructure. Dust or PM₁₀ generated by vehicles traveling on unpaved roads or roads in poor condition, affects air quality in the region and directly impacts public health. First-time paving is considered a proven method to reduce the amount of fugitive dust resulting from vehicle traffic on unpaved roads.

The street paving, paving rehabilitation and roadway improvements will help reduce vehicular traffic congestion at peak hours. One of the anticipated Project outcomes is an estimated reduction of at least 32.8 metric tons per year of PM₁₀. Additionally, improved traffic flows and consistent vehicle speeds related to new paving, rehabilitated areas and other road improvements can be expected to reduce vehicular gas emissions, including nitrogen oxides (NOx), volatile organic compounds (VOCs) and carbon monoxide (CO).

Conventional electricity production can affect the natural environment due to the associated harmful emissions, including the release of greenhouse gases (GHG) and other pollutants, such as sulfur dioxide (SO₂) and NOx. The replacement of 396 urban lamps with more energy efficient technology will help reduce the consumption of electricity produced by fossil-fuel-based power plants.

Playas de Rosarito currently uses an average of 6,670,740 KWh/year for street lighting services, and the Project will help reduce that energy consumption by approximately 9.6% (64,014 KWh/year), resulting in an estimated displacement of 33 metric tons/year of carbon dioxide (CO₂).

The Project will also contribute to the provision of adequate water and wastewater services.

Mitigation of Risks

During Project implementation, measures will be taken to mitigate the temporary effects of construction by following these best management practices:

- Noise
 - All operating vehicles must close their exhaust and operate at low speed around the work areas.
 - All vehicles must comply with Mexican Standard NOM-080-ECOL-1994, which establishes the maximum permissible levels of noise from motor vehicles, motorcycles, and three-wheel motor vehicles, as well as noise measuring methods.
- Site preparation and construction
 - Dust emissions generated by vehicle traffic will be minimized by irrigating the areas where work will be performed.
 - With regard to air emissions caused by motor vehicles, all vehicles used in the Project must have emission control systems.
 - The use of water should be optimized during construction of the Project. The water required during the construction phase should be obtained from a water tap provided by CESPT or from another authorized source.
 - Excavations will only be performed in areas previously identified by the Project.
- Waste management
 - All non-recyclable solid wastes must be disposed of in accordance with applicable procedures and in facilities designated by the authorities for this purpose.
 - Backfill and compacting materials should be free of hazardous and non-hazardous waste, ensuring that such materials are moved to authorized confinement or treatment sites.
 - In order to avoid ground contamination generated by vehicle, machinery and equipment maintenance and oil changes, these activities will be carried out in authorized service shops.

Natural Resource Conservation

The Project does not interfere in any way with the conservation of natural resources in the region. All Project works will be carried out in previously disturbed urban areas and within existing roadways.

No Action Alternative

The no action alternative was dismissed because of the ongoing need for basic services, which, if unmet, pose risks to local air and water resources, as well as to public health. The Project is necessary to meet the existing development needs of Playas de Rosarito. Affordable project financing is important to support ongoing investment in adequate basic infrastructure, such as

roadways, efficient lighting services and the provision of adequate water and wastewater services. Without access to affordable financing, the needed works and future investments in the Municipality of Playas de Rosarito may be delayed or postponed.

Existing Conditions and Project Impact – Health

The proposed Project will immediately reduce the volume of PM₁₀ particles released by vehicular traffic traveling on unpaved surfaces or roads in poor condition. These improvements will help reduce respiratory illnesses and allergies. During the rainy season, the lack of pavement results in water ponding on the surface of local roadways, which also becomes a source of infection for humans.

Mexican Standard NOM-020-SSA1-1993 establishes that health risks associated with air pollutants are correlated to the time elapsed between exposure and the onset of adverse effects in exposed individuals and causes changes in pulmonary function that render affected individuals more susceptible to respiratory diseases and infections.

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

Transboundary Effects

No transboundary effects are anticipated as a result of this Project.

Other Local Benefits

Additional direct benefits to the local community include facilitating access to emergency, security and other public services; reducing travel times; and fostering economic development.

2.3. FINANCIAL CRITERIA

In October 2007, the Board certified a project to improve air quality and urban mobility through street paving and other roadway improvements in Playas de Rosarito and approved a loan for \$320 million pesos to partially finance its implementation (Board Resolution 2007-33). A loan for \$220 million pesos (US\$17.12 million) was contracted with the Municipality of Playas de Rosarito in May 2009 and was fully disbursed in February 2010 for a term of 15 years.

The source of payment of the existing loan is a portion of the Municipality's federal tax revenue ("*participaciones*"), which is deposited into a trust. The Municipality is, and has always been, current in the payment of the loan. However, to improve its financial flexibility and strengthen its liquidity position, the Municipality has implemented a financial plan that includes refinancing its debt to obtain a longer term and better conditions, as well as other cost-cutting measures.

The savings from these efforts will allow the Municipality to continue with its capital improvement program and address additional infrastructure needs in the community.

The total cost of the Project is estimated at \$262.3 million pesos, which includes \$76.7 million pesos for the construction of the new infrastructure works and equipment. The Municipality of Playas de Rosarito has requested a loan from NADB to refinance the existing loan in order to access longer terms and better financial conditions, as well as partially finance the cost of implementing the new infrastructure and equipment.

The Project's proposed payment mechanism is consistent with financial structures for loans to Mexican municipalities where federal tax revenue ("*participaciones*") serves as the source of payment for the loan. The *participaciones* received by the Municipality of Playas de Rosarito, will be irrevocably pledged and deposited into a trust to cover debt service payments to NADB, in accordance with the applicable laws.

NADB performed a financial analysis of the Municipality of Playas de Rosarito. The cash flow projections indicate that the Municipality has the capacity to meet all its financial obligations, including those related to this loan, without adversely affecting the operation and maintenance of the Municipality. In line with these conclusions, Fitch Ratings recently assigned the Municipality a BB+ (mex) rating with a stable outlook. This rating considers the impact of the proposed refinancing.

In addition, NADB has verified that Playas de Rosarito has the legal authorization to contract this loan and to pledge its *participaciones* as the source of payment. Playas de Rosarito also has the legal and financial capacity to operate and maintain the works to be constructed under this Project, either directly or through its decentralized development public works entity (PRODEUR).

Considering the financing characteristics of the loan proposal and based on the foregoing financial and risk analyses, the loan presents an acceptable level of risk. Therefore, NADB proposes providing Playas de Rosarito with a market-rate loan to refinance the balance of the existing loan of \$169.2 million pesos as of March 1, 2015, plus any hedge breakage costs associated with the refinancing, as well as provide up to \$61.5 million pesos for new infrastructure works and equipment under the Project.⁵

⁵ The hedge breakage costs will depend upon market conditions at the time the actual loan refinancing occurs.

3. PUBLIC ACCESS TO INFORMATION

The information in this Section of the proposal pertains solely to the new infrastructure works to be partially funded with the proposed loan. The works funded and constructed with the proceeds of the existing NADB loan were certified October 30, 2007 through Board Resolution 2007-33 and were completed in July 2012.

3.1. PUBLIC CONSULTATION

BECC released the Draft certification and financing proposal for a 30-day public comment period beginning March 17, 2015. The following Project documentation was made available for public access:

- 2014-2016 Municipal Development Plan
- Environmental Clearance No. 013-2015, issued January 2015 for Calle Cuauhtémoc.
- Environmental Clearance No. 012-2015, issued January 2015 for Calle Emiliano Zapata.
- Environmental Clearance No. 010-2015, issued January 2015 for Calle Lazaro Cardenas.
- Environmental Clearance No. 022-2015, issued January 2015 for streets in the Zona Rosarito.
- Environmental Clearance No. 014-2015, issued January 2015 for Calle Valentin Ruiz Pimentel.
- Environmental Clearance No. 011-2015, issued January 2015 for Calle Conexión Alta Tensión.
- Environmental Clearance No. 008-2015, issued January 2015 for Calle Plan San Luis.
- Environmental Clearance No. 018-2015, issued January 2015 for the Miguel Hidalgo intersection.
- Environmental Clearance No. 017-2015, issued January 2015 for the La Reforma intersection.
- Environmental Clearance No. 009-2015, issued January 2015 for construction of the La Ladrillera pedestrian bridge.

The 30-day public comment period ended on April 16, 2015, with one comment received in support of the Project from the *Observatorio Urbano Metropolitano* of the METTROPOL-INDEX, a civil association dedicated to collecting, analyzing and managing urban data on the metropolitan area of Tijuana, Tecate, and Playas de Rosarito, including border conditions with San Diego, in order to make recommendations and encourage public policy and actions that positively impact the quality of life in the region.

3.2. OUTREACH ACTIVITIES

Project information within the context of the general investment activities of Playas de Rosarito, is made available to community residents through postings on the Municipality's website. In addition, Congressional approval of Playas de Rosarito's proposed debt was published on the State Congress website.

BECC conducted a media search to identify public opinion regarding the Project. References to the debt refinancing were found in several articles on Internet sites. Examples of these articles can be found at the following links:

- *El Mexicano, Gran Diario Regional* (December 13, 2014). "Buscan reducir deuda pública" (Looking to reduce public debt), <http://www.el-mexicano.com.mx/informacion/noticias/1/3/estatal/2014/12/13/809968/buscan-reducir%C2%A0la-deuda-publica>
- *Frontera.Info* (August 13, 2014). "Ayuntamiento de Rosarito reestructurará deuda" (City to restructure debt), <http://www.frontera.info/EdicionLinea/Notas/Noticias/13082014/874271-Ayuntamiento-de-Rosarito-reestructurara-deuda.html>
- *Monitor Económico de Baja California* (October 09, 2014). "Recibe Rosarito autorización del Congreso para refinar su deuda" (Rosarito receives Congressional approval to refinance its debt), <http://monitoreconomico.org/noticias/2014/oct/09/recibe-rosarito-autorizacion-del-congreso-para-refinanciar-su-deuda/>
- *Agencia de Noticias Fronterizas* (October 9, 2014). "Autorizan refinar deuda pública" (Refinancing of public debt authorized), http://www.afntijuana.info/informacion_general/32598_autorizan_refinanciar_deuda_publica

No opposition to the Project was detected in the media search. The routine practice of the municipality to provide access to its general investment activities through postings on the Municipal website (<http://www.rosarito.gob.mx/Vl/>), as well as promoting press conferences to share municipal actions satisfies the public outreach requirements for certification.