CERTIFICATION PROPOSAL

EXPANSION OF THE WATER AND WASTEWATER SYSTEMS TO THE SOUTHWEST AREA OF NOGALES, SONORA

Revised: November 14, 2016

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INDEX

EXECUTIVE SUMMARY

EXPANSION OF THE WATER AND WASTEWATER SYSTEMS TO THE SOUTHWEST AREA OF NOGALES, SONORA

Project:	The proposed project includes the expansion of the municipality's drinking water (DW) distribution and wastewater collection (WWC) system infrastructure to the following residential areas ("Colonias") in Southwest Nogales, Sonora: Flores Magón, Las Torres, Luis D. Colosio, El Rastro, Las Primaveras, and Jardines de la Montaña (the "Project").
Project Objective:	The purpose of the Project is to increase access to sustainable potable water service and eliminate exposure to untreated or inadequately treated wastewater discharges by providing first-time DW and WWC services to residents in the Nogales' Southwest Colonias, contributing to the reduction of water pollution and risk of waterborne diseases; as well as reducing health risks associated with hauled water service.
Expected Project Outcomes:	The environmental and human health outcomes anticipated for the Project include: • Provide access to DW services for 2,350 homes. • Provide access to wastewater collection services to 3,506 homes including the installation of household WW connections for 100% of the Project area. • Eliminate untreated or inadequately treated wastewater discharges of approximately 0.93 million gallons per day (mgd).
Population Benefitted:	16,701 residents of Nogales, Sonora.[1]
Project Sponsor:	Local water utility, *Organismo Operador Municipal de Agua Potable, Alcantarillado y Saneamiento* (OOMAPAS) *de Nogales*
Project Cost:	US$10,483,888.[2]

[1] Source: OOMAPAS. 4,395 homes with 3.8 persons per household equal 16,701 residents, with 889 homes receiving DW only (3,378 persons); 2,045 homes receiving WWC only (7,771 persons); and 1,461 homes with both DW and WWC (5,552 persons).
[2] Unless otherwise noted, all currency is stated at an exchange rate of $18.00 pesos to the dollar.

EPA BEIF Grant: US$5,259,444

Uses and Sources of Funds:
(US$)

Uses*	Amount	%
Wastewater collection system	$7,402,054	70.6
Drinking water distribution system	3,081,834	29.4
TOTAL	**$10,483,888**	**100.0**
Sources	**Amount**	**%**
NADB - BEIF (EPA grant)	$5,259,444	50.2
Mexico (CONAGUA; OOMAPAS)	5,224,444	49.8
TOTAL	**$10,483,888**	**100.0**

*Includes construction, contingencies, and supervision.

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1. ELIGIBILITY

Project Type

The Project falls within the eligible sectors of drinking water and wastewater collection.

Project Location

The Project is located in the City of Nogales, Sonora, which is located directly adjacent to the U.S.-Mexico border. The Project is located 2.5 miles south of the border and it is centered roughly at Latitude 31.27 ^{O} North and Longitude -110.96^{O} West.

Project Sponsor and Local Authority

The public-sector Project sponsor is the *Organismo Operador Municipal de Agua Potable, Alcantarillado y Saneamiento de* Nogales (OOMAPAS or the "Sponsor"). Pursuant to Decree No. 1, III Legislature of the State of Sonora, the municipal water utility, OOMAPAS, has the legal authority to operate and maintain water treatment, storage, and distribution systems, as well as wastewater collection and treatment systems.

2. CERTIFICATION CRITERIA

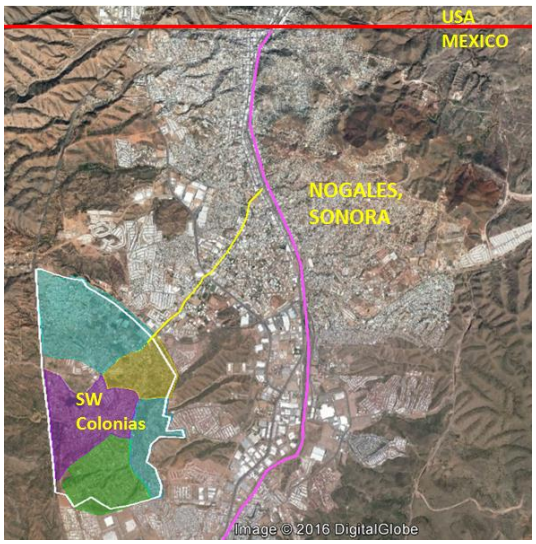
2.1. TECHNICAL CRITERIA

2.1.1. Project Description

Geographic Location

The city of Nogales is located in the north-central part of the state of Sonora, which is adjacent to Nogales, Arizona and 62 miles south of Tucson, Arizona. Figure 1 shows the location of Nogales, Sonora and the Project area named as Southwest Colonias.

Figure 1
PROJECT VICINITY MAP



General Community Profile

According to the population projections of the Mexican census bureau (INEGI 2010), the municipality of Nogales, Sonora had 220,292 residents in 2010, having grown at an average annual rate of 4.03 % over the last ten years from a population of 159,103 in 2000.[3] The population estimated to reside in the six Colonias included in the Project area is 31,460 of which 16,701 will be directly benefitted from the Project.[4]

The municipality's economic activities are based primarily on agriculture, industry and commerce. The economically active population is estimated to be 86,416 inhabitants (40.66%). The average household income is estimated at US $6,654 which is 17% higher than the state average of US $5,682.[5]

The status of public services in the community of Nogales, Sonora is described in Table 1 below.

[3] Source: *Instituto Nacional de Estadísticas y Geografía* (INEGI), Mexican censuses 2010 and 2000, respectively.
[4] Source: Memoria Descriptiva de Proyecto Ejecutivo, September 2014.
[5] Source: INEGI, Mexican Census 2000.

Table 1
BASIC PUBLIC SERVICES AND INFRASTRUCTURE

Water System			
Coverage:	88.3% *		
Supply source:	53 water supply wells (Mascareñas & Los Alisos Aquifers)		
Number of hookups:	56,136		
Wastewater Collection			
Coverage:	87.9% *		
Number of connections:	55,911		
Wastewater Treatment			
Coverage**	100%		
Treatment facility:	**Plant**	**Type**	**Capacity**
	Los Alisos WWTP	Aerated stabilization ponds	220 lps (5.0 mgd)
	Nogales International WWTP	Biological Nutrient Removal (BNR) System	434 lps (9.9 mgd)
Solid Waste			
Collection coverage	98% *		
Final disposal	Landfill.		
Street Paving			
Coverage	35% *		

* Source: OOMAPAS, October 2013.
** In accordance with CONAGUA's definition, this is calculated based on the percentage of collected wastewater discharges treated at the existing treatment facilities.
WWTP = wastewater treatment plant, lps = liters per second; mgd = millions of gallons a day.

Local Drinking Water and Wastewater System Profile

Currently, the Nogales water distribution system reaches an estimated 72% of the homes in the Southwest Colonias. The remaining population relies on drinking water hauled by trucks, a practice that is subject to significant risk of contamination in the delivery and storage of drinking water. The hauled water is often not sufficient to support the residential drinking water needs. The proposed Project will address this by installing new drinking water infrastructure for the 2,350 unserved residences.

An estimated 58% of the homes in the Southwest Colonias have access to WWC services. The remaining wastewater is either disposed of in cesspools or is discharged directly as raw sewage. With the lack of sufficient wastewater collection and treatment, there is a risk to human health with the potential exposure to untreated sewage. Furthermore, the discharge of untreated wastewater contributes to groundwater and surface water contamination both in Mexico and in areas around the Nogales Wash and Santa Cruz River in Arizona. The proposed Project will address this condition by installing new wastewater collection infrastructure for the 3,506 unserved residences.

Of the homes receiving access to new DW and/or WWC infrastructure, 1,461 homes will receive first-time service for both services; 889 homes already have WWC services and will receive access to new DW systems only; and, 2.045 homes that already have DW service will receive access to first-time WWC services.

Wastewater discharges collected in Nogales, Sonora are conveyed to either the Los Alisos WWTP located in Nogales, Sonora, owned and operated by OOMAPAS, or to the International Wastewater Treatment Plant in Nogales, Arizona (NIWWTP). Specifically, the wastewater generated from the Project area will be treated at the Los Alisos WWTP. The design capacity of the "Los Alisos" wastewater treatment plant is 5.0 million gallons a day (mgd), with current inflows of 3.12 mgd. The proposed Project will collect an approximately 0.93 mgd of wastewater; therefore, Los Alisos WWTP has sufficient capacity to treat the 0.93 mgd generated by the Project.

This Project has been included in OOMAPAS's annual action plan since 2008, but has not been implemented due to insufficient matching funds. Based on the public health and environmental risks caused by the lack of basic DW and WWC services to the area, the Project was prioritized for funding through the US Environmental Protection Agency's US-Mexico Border Water Infrastructure Program. This funding opportunity along with financial resources from local, state and federal programs in Mexico have made it possible to advance the implementation of the Project.

Project Scope and Design

The proposed Project will provide first-time DW and WWC to six colonias in the Southwest area of Nogales, Sonora. Multiple contracts are anticipated to be procured to accommodate a multi-year funding plan as well as parallel activities in DW and WWC infrastructure installation. The scope and design for works in each sector are described below.

Drinking Water

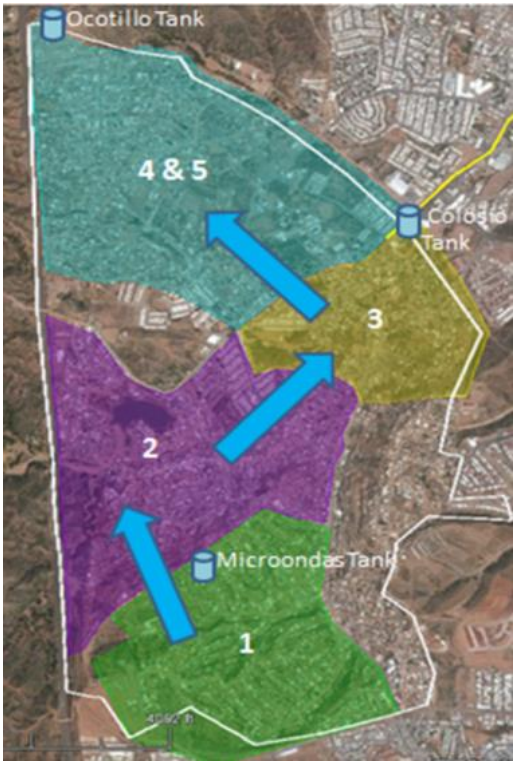
To improve the constructability and financing of the Project, the DW component was divided into five phases to be completed over a two-year period. Table 2 describes the proposed DW infrastructure per phase.

Table 2
DRINKING WATER SYSTEM INFRASTRUCTURE SUMMARY

Phase	Colonia	Infrastructure 8" PVC Pipe (meters)	New Connections
1	Luis Donaldo Colosio	6,626	662
2	Luis Donaldo Colosio	6,643	677
3	El Rastro	5,752	223
4	Hermanos Flores Magon; Las Torres	4,688	229
5	Las Primeras; Jardines de la Montanas	7,043	559
	Total	**30,752**	**2,350**

The proposed sequence of construction starts from south to north or phases 1 to 5 as shown below. According to OOMAPAS, construction can be implemented in this sequence because each phase has a unique pressure zone served by existing water tanks. Figure 2 shows the areas where the Project components for DW will be installed.

Figure 2
PROJECT LAYOUT: DRINKING WATER



Water to the Project area will be delivered from the Los Alisos well field, which is supplied by deep groundwater wells. The final design for the Project estimated that an average production rate of 491 gpm (31 lps) will be needed to adequately serve the expanded water system.[6] During the design phase the consumption was evaluated and OOMAPAS determined that the Los Alisos aquifer has sufficient capacity to supply the required DW flows. No new water rights are required to meet the demand.

Wastewater Collection

The sanitary sewer system will be expanded to serve 3,506 new sewer connections, which will be completed with 6" PVC household service connections discharging to wastewater collection infrastructure varying from 8" to 16" diameter PVC ALC Series 20 pipe installed in the municipal right-of-way. To improve the constructability and financing of the Project, the WWC component

[6] The Project will provide access to the water distribution system. Individual residential water hook-ups are not included in this Project.

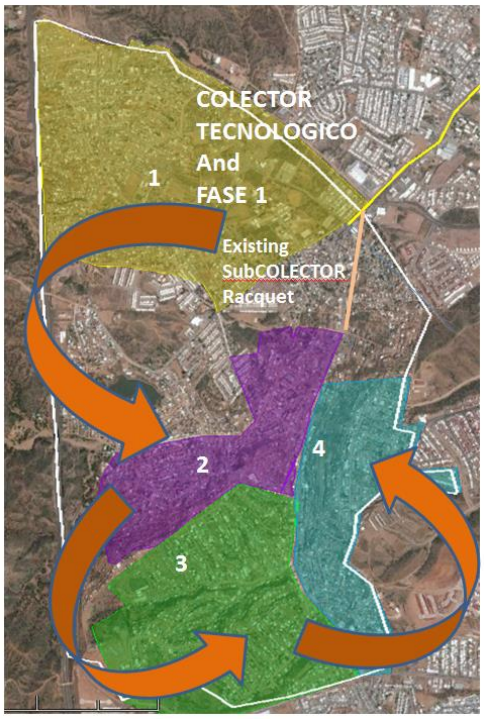
was divided into 4 phases. Table 3 describes the proposed wastewater collection infrastructure per phase.

Table 3
WASTEWATER COLLECTION SYSTEM INFRASTRUCTURE SUMMARY

Phase	Colonia	Infrastructure PVC Pipe (meters)		New Connections
		16" diameter	8" diameter	
	Colector Tecnologico	2,048	--	72
1	Hermanos Flores Magón; Las Torres; Las Primaveras; Jardines de la Montana	--	5,509	585
2	Luis Donaldo Colosio	--	7,786	751
3	Luis Donaldo Colosio	--	14,216	1,504
4	Luis Donaldo Colosio	--	8,186	594
Total		**2,048**	**35,697**	**3,506**

The main prerequisite for the WWC system infrastructure installation is the construction of the main collector serving the area: Colector Tecnologico, which will convey wastewater discharges from the Project area to the lift station at the "Carcamo de Bombeo Estadio," which has sufficient capacity for the additional flows. Thereafter, construction can proceed from lower to higher elevations in a counterclockwise pattern, as indicated below. Figure 3 shows the Project component phases and anticipated sequence for WWC infrastructure.

Figure 3
PROJECT LAYOUT: WASTEWATER COLLECTION



Construction permits will be the responsibility of the contractor and are considered a construction task. Table 4 shows the proposed schedule for Project implementation milestones.

Table 4
PROJECT MILESTONES

Key Milestones	Status	
Initiate procurement	WWC Phases 1, 2, and 3 (match credit)	4th quarter 2016
	DW Phases 1 and 2	2nd quarter 2017
	Colector Tecnologico & WWC Phases 1,2 & 4	2nd quarter 2017
	DW Phases 3, 4, and 5	2nd quarter 2018
	WWC Phases 3 and 4	2nd quarter 2018
Construction period	Twenty-four (24) months from Notice to Proceed	

2.1.2. Technical Feasibility

Design Criteria

The final design of the proposed works was completed in accordance with the recommendations included in the Water, Wastewater Collection, and Treatment Manuals (*Manuales de Agua Potable, Alcantarillado y Saneamiento, MAPAS*) developed by the Mexican federal water agency, CONAGUA, and include the implementation of green building practices as part of the technical construction specifications. The final design documents were reviewed by CONAGUA, BECC and NADB. The Project received a technical authorization (*Validación Técnica*) by the regional offices of CONAGUA in the State of Sonora through official correspondence dated May 22, 2013 (BOO.OO.R03.05/099) and updated on August 27, 2014 (BOO.00.R03.05.1.-094) and re-affirmed on September 13, 2016 (BOO.803.06.3-193) with the purpose to update Project costs.

Selected Technology

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

- Proposed layout of the drinking water and sewer lines
- Required connection points for the system components
- Constructability
- Capital cost
- Operation and maintenance (O&M) cost
- Materials and equipment reliability
- Environmental impact
- Social/community acceptance
- Topography

- System Reliability
- Rights of way and easement requirements
- Pavement removal and replacement
- Technology and sustainable practices

The DW pipe diameter was selected based on the topography, capacity and pressure to prevent leakage. The analysis also considered using various pipe materials in compliance with applicable standards and regulations. High-density polyethylene and PVC pipes were evaluated, and their characteristics and suitability for the soil type were reviewed. PVC was selected for the proposed waterline. It is the same material used throughout the existing system and has proven to be reliable.

The WWC pipe diameter was selected using appropriate slopes and velocities to prevent pipe silting and clogging, septic conditions, over-excavation or the need for pumping facilities that could increase Project capital as well as operation and maintenance (O&M) costs. Peak flow rates and maximum instantaneous flow rates were taken into consideration in order to avoid overflows. The analysis also considered using various pipe materials in compliance with applicable standards and regulations. High-density polyethylene, PVC, and asbestos-cement pipes were evaluated, and their characteristics and suitability for the soil type were reviewed. For the proposed Project, PVC was the selected material, which has proven to be reliable.

2.1.3. Land Acquisition and Right-of-way Requirements

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

2.1.4. Management and Operations

Management and operation of the proposed Project will be the responsibility of OOMAPAS. The utility has an O&M manual that includes routine tasks, as well as procedures to address unexpected conditions and ensure a proper operation of the system. The utility is organized in various departments, including: Water Treatment, Wastewater Treatment, Operation and Maintenance, Construction, and Management. The impacts of the proposed Project to the O&M budget and procedures have been reviewed and are deemed sustainable.

OOMAPAS currently serves approximately 56,136 water hookups and 55,911 wastewater connections in its service area. Los Alisos WWTP, owned and operated by OOMAPAS, has a capacity of 5.0 mgd and currently receives wastewater flows from the community of 3.12 mgd.

In addition to the treatment capacity available at the Los Alisos WWTP, pursuant to the agreement established in Minute 276 of the International Boundary and Water Commission (IBWC) between Mexico and the United States, the NIWWTP has capacity reserved to receive up to 9.9 mgd (434 lps) of wastewater flows from Mexico. However, the WW volumes conveyed to the NIWWTP consistently surpass the allotted capacity and the cost of excess volumes is very high. Nevertheless, the city has been covering these excess volume payments to IBWC since December 2015. CONAGUA and OOMAPAS are currently expanding the Los Alisos WWTP for an

additional 2.5 mgd (110 lps), which will reduce flows currently directed to the NIWWTP and avoid the higher treatment costs.

As an important sustainable management practice, OOMAPAS has implemented a pretreatment program to control the quality of wastewater discharges from industrial and small business customers. This quality must comply with Official Mexican Standard NOM-002-SEMARNAT-007, which regulates the quality of the wastewater until it is conveyed to the treatment facility.

2.2. ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

The Project is subject to an environmental clearance authorization in accordance with the Regulations of the state of Sonora and the General Law on Ecological Balance and Environmental Protection regarding Environmental Impact Assessment, as determined through the Sonora Ministry of Urban Infrastructure and Ecology. Additionally, to be able to receive grant funds from the Border Environment Infrastructure Fund (BEIF), supported by federal appropriations to the U.S.-Mexico Border Water Infrastructure Program of the U.S. Environmental Protection Agency (EPA), the Project requires a transboundary impact study in compliance with the U.S. National Environmental Policy Act (NEPA).

In addition, the Project complies with the following Official Mexican Norms:

- NOM-127-SSA1-1994, that determines DW standards including the maximum allowable limits of contaminants and treatment required for human use and consumption.
- NOM-002-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants for wastewater discharges into urban or municipal wastewater collection systems.

Environmental Studies and Compliance Activities

On February 22, 2013, SEMARNAT, through its Sonora Delegation Offices, issued an official document No. 26DEV-0222/1301 which determined that the project "Ampliacion de los Sistemas de Agua Potable y Alcantarillado Sanitario en el Suroeste de la Ciudad, Nogales, Sonora" was excluded from the *Manifestacion de Impacto Ambiental* (MIA) because the construction of the works will be conducted in urban areas which are considered impacted.

The Comisión *de Ecología Sustentable del Estado de Sonora* (CEDES) issued an official document no. DGGA-1103/12 on November 22, 2012, which indicated that the Project did not require an environmental authorization from the state of Sonora.

In accordance with the National Environmental Policy Act (NEPA), a Transboundary Environmental Impact Document (EID) was developed and submitted for consideration to EPA. The document presents an assessment of the Project alternatives related to the following environmental consequences:

- Air quality, odors, and greenhouse gas emissions
- Noise impacts
- Water quality, hydrology and floodplain impacts
- Biological resources and wetland impacts
- Cultural and historic resource impacts
- Geology and soils impacts
- Municipal and public service impacts
- Public health, hazards and waste management
- Socioeconomic conditions
- Land use and planning
- Transportation and circulation
- Utilities and service systems, and
- Environmental justice

The original EID was developed for a DW Project to serve only 800 homes within the current Project area. However, EPA Region 9 prepared a supplemental environmental assessment (SEA), dated June 2013, describing the potential environmental impacts associated with, and the alternatives to, the expanded DW Project, as currently proposed including all six Southwest Colonias. Additionally, the 2013 SEA incorporates by reference the May 2009 SEA for the Los Alisos Wastewater Treatment Plant and Conveyance System Construction project (Los Alisos Wastewater SEA), which evaluated the potential environmental impacts associated with expansion of the WWC system to the same six Colonia Project area.

After consideration of all relevant factors described in the 2013 SEA, EPA Region 9 did not identify any significant impacts to the environment resulting from the implementation of the proposed DW and WWC Project. The SEA and the unsigned Finding of No Significant Impact (FONSI) were made available for public review and comment at EPA's web site and the Nogales International newspaper for 30 days. EPA did not receive any comments prior to the close of the comment period on August 27, 2013 and based on the SEA determined that the proposed Project will result in no significant impacts to the environment. The final FONSI for this Project was signed on September 19, 2013.

Pending Environmental Tasks and Clearances

All applicable environmental tasks and authorizations have been completed.

Compliance Documents

The following formal authorizations have been obtained for the Project:

- Official Doc No. DGGA-1103/12 issued by the state delegation in Sonora, Comisión de Ecología Sustainable (CEDES) on November 22, 2012.
- Official Doc No. 26DEV-0222/1301 issued by SEMARNAT on February 22, 2013.
- Final FONSI signed by EPA on September 19, 2013

2.2.2. Environmental Effects / Impacts

The purpose of the Project is to increase access to sustainable potable water service and eliminate exposure to untreated or inadequately treated wastewater discharges by providing first-time DW and WWC services to residents in the Nogales' Southwest Colonias, contributing to the reduction of water pollution and risk of waterborne diseases; as well as reducing health risks associated with hauled water service.

The environmental and human health outcomes anticipated for the Project include:

- Provide access to DW services for 2,350 homes.
- Provide access to wastewater collection services to 3,506 homes including the installation of household WW connections for 100% of the Project area.
- Eliminate untreated or inadequately treated wastewater discharges of approximately 0.93 mgd (41.2 lps).

Mitigation of Risks

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

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

Typical mitigation measures to be practiced include:

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

Natural Resource Conservation

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

No Action Alternative

The no-action alternative was not selected since failing to expand the DW and WWC systems to unserved areas would result in potential groundwater contamination and significant health risks for residents.

Existing Conditions and Project Impact – Human Health

The lack of access to proper DW infrastructure and the risk of exposure to untreated wastewater increases the vulnerability of area residents to waterborne diseases, which are caused by pathogenic microorganisms that are directly transmitted as a result of inadequate wastewater collection and disposal practices and unsafe water supplies. An individual can become ill after drinking water that has been contaminated with these organisms, eating uncooked foods that have been in contact with contaminated water, or through poor hygiene habits that contribute to the dissemination of diseases by direct or indirect human contact. Table 5 shows waterborne statistics diseases for the state of Sonora for the period 2009-2012.

Table 5
WATERBORNE DISEASE STATISTICS FOR THE STATE OF SONORA, 2009-2012

HEALTH SERVICES OF SONORA
GENERAL HOSPITAL SAN LUIS RIO COLORADO
EPIDEMIOLOGY DEPARTMENT
GASTROINTESTINAL DISEASES PER TYPE AND YEAR IN SAN LUIS RIO COLORADO, SON.

Disease	2009	2010	2011	2012
INTESTINAL ILLNESESS	2753	2301	2687	2771
PARATYPHOID AND OTHER SALMONELLOSIS	179	187	207	213
AMEBIASIS	25	31	45	39
GIARDIASIS	10	5	4	6
HEPATITIS-A	6	8	11	9
OTHER HELMITIASIS	1	2	1	1
SHIGELLOSIS	0	1	0	0
ASCARIASIS	2	1	1	1
TYPHOID FEVER	1	0	0	0

Source: WEEKLY REPORT OF DISEASES NEW CASES.

The infrastructure improvements to be implemented with the proposed Project will reduce the unsanitary conditions existing for Colonia residents 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%.[7]

Transboundary Effects

Due to the proximity of this community to the city of Nogales, Arizona, there are frequent border crossings between cities. The proposed Project is expected to have a positive impact on the health of residents of neighboring communities such as Rio Rico, Amado, Tubac and the entire region, since the Project will help to reduce the risk of waterborne diseases caused by exposure to untreated or inadequately treated wastewater discharges and unsanitary storage practices utilized due to a lack of DW service.

[7] Source: WHO, Water, Sanitation and Hygiene Links to Health; Facts and figures updated November 2004 (http://www.who.int/water_sanitation_health/publications/facts2004/en/).

The proposed WWC system will connect to existing infrastructure, which will convey wastewater flows to the Los Alisos WWTP, avoiding any impacts to the capacity constraints at the NIWWTP. Additionally, the implementation of the proposed Project will reduce the potential for contamination of local and shared water bodies, such as the Nogales Wash, a tributary of the Santa Cruz River.

According to the transboundary environmental assessment, significant impacts are not expected as a result of the Project implementation and the Project is expected to have an overall positive effect for the binational region.

2.3. FINANCIAL CRITERIA

The estimated construction cost of the Project includes US$2,801,667 for the DW system; US$6,462,222 for WW collection system, and US$ 1,219,999 for construction supervision and contingencies, resulting in a total Project cost of US$10,483,888. The Project meets all BEIF program criteria and has been approved by EPA for a BEIF grant of up to US$5,259,444 to complete the financing of the Project.

To improve the constructability and financing of the Project, the WWC component was divided into five parts (four phases and the Tecnológico Collector); and the DW into five phases. Table 6 presents a breakdown of total Project costs, as well as the source of funds.

Table 6
USES AND SOURCES OF FUNDS
(US$)

Uses*	Amount	%
Wastewater collection system	$7,402,054	70.6
Drinking water distribution system	3,081,834	29.4
TOTAL	**$10,483,888**	**100.0**
Sources	**Amount**	**%**
NADB - BEIF (EPA grant)	$5,259,444	50.2
Mexico (CONAGUA; OOMAPAS)	5,224,444	49.8
TOTAL	**$10,483,888**	**100.0**

*Includes construction, contingencies, and supervision.

Funds from Mexico are scheduled to be allocated over a multi-year period (2016-2018), including a match credit requested by CONAGUA and approved by EPA in September 2016.[8] Mexican funds will support DW improvements and a portion of the wastewater improvements. BEIF funds are expected to be used over the period 2017-2018 and will support wastewater improvements, including household wastewater service connections and construction management for all DW and WW phases.

[8] The term *match credit* refers to funds expended by CONAGUA for works constructed previously. EPA agrees to credit those expenditures towards the matching Mexican funds required to receive a BEIF grant.

3. PUBLIC ACCESS TO INFORMATION

3.1. PUBLIC CONSULTATION

BECC published the draft certification proposal for a 30-day public comment period beginning October 14, 2016. The following Project documents area available, upon request, for public access:

- Final Design, Expansion of the Drinking Water & Wastewater Collection systems, Southwest Colonias (6) Nogales, Sonora 2014.
- Official Doc No. DGGA-1103/12 issued by the state delegation in Sonora, Comisión de Ecología Sustentable (CEDES) on November 22, 2012, which indicates the Project does not require an environmental authorization from the state delegation in Sonora.
- Official Doc No. 26DEV-0222/1301 issued by SEMARNAT on February 22, 2013, which indicates the Project, does not require an environmental impact assessment or authorization (MIA).
- EPA FONSI dated September 19, 2013.
- CONAGUA's wastewater collection technical validation dated May 22, 2013 (BOO.OO.R03.05/099) and updated on August 27, 2016 (BOO.OO.R03.05.1.-094) to revise the Project cost.

The 30 day-public comment period ended on November 13, 2016, with no comments received.

3.2. OUTREACH ACTIVITIES

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

A steering committee was established on May 13, 2014 to help the Project sponsor disseminate information regarding water and wastewater infrastructure works. The committee includes members of civil engineering and economic development associations, as well as city council members. The Steering Committee, with assistance from the Project sponsor, prepared a fact sheet and a power point presentation for the Project. Project information was presented to the community at two public meetings:

- *September 25, 2014*. The first Public Meeting notice was published in the local newspaper *El Diario de Sonora* on August 24, 2014, and was held at the DIF Municipal facilities. Present at the meeting were Mayor Ramon Guzman and OOMAPAS General Manager Emilio Sandoval Rodriguez, as well as members of the Steering Committee. The meeting was attended by more than 800 residents. A Project survey regarding the technical aspects of the Project was distributed. Based on the responses received, the

survey concluded that 100% of the attendees fully understood the Project and expressed their support.

- *November 3, 2016*. The second public meeting notice was published in the local newspaper *El Diario de Sonora* on October 27, 2016, and was held at the DIF Municipal facilities. Present at the meeting were OOMAPAS General Manager Mauro Corrales Bujanda, as well as members of the Steering Committee. The meeting was attended by more than 120 residents. A Project survey regarding the technical & financial aspects of the Project was distributed. Based on the responses received, the survey concluded that 100% of the attendees fully understood the Project and expressed their support.

Activities conducted by the Project sponsor and Steering Committee demonstrate that the public outreach requirements for the funding program have been met.

In addition, BECC conducted a media search to identify potential public opinion about the Project. The following articles referenced the Project or ancillary investment efforts.

- On February 8, 2016 César Lagarda Lagarda, COANAGUA announces that the Mexican government plans to invest $60 million pesos (approximately $3.24 million US dollars) for the construction of water, wastewater and wastewater treatment projects in Nogales, Sonora, including funds available for the Southwest Colonias Project among others. Source: http://www.20minutos.com.mx/noticia/59895/0/aplican-proyectos-de-proteccion-ambiental-en-municipios-de-sonora/

- A "Ribbon-Cutting" ceremony for the Los Alisos WWTP, Phase 1, was held on September 27, 2016. This project will expand the capacity of the existing WWTP from 220 lps (5.0 mgd) to 330 lps (7.53 mgd) with an estimated upgrade cost of $11,749,202.38 MXP (approximately $ 635,092 U.S. dollars). Also noted was a future Phase 2 effort, which includes the expansion of the discharge channel, effluent disinfection improvements, and treatment train improvements. The Phase 2 initiation date has not been determined. Source: http://www.eldiariodesonora.com.mx/notas.php?nota=79293

No other articles related to the Project were identified and no opposition to the Project was detected in the media search.