Border Environment Cooperation Commission
Wastewater Collection Improvements Project
Rio Grande City, Texas

1. General

1.a Project Type

Project Name: Rio Grande City Wastewater Collection Improvements Project.

Project Sector: Domestic Water and Wastewater Hookups.

1.b Project Category

Category: Community Environmental Infrastructure Projects – Community-wide Impact.

1.c Project Location and Community Profile

Community : Rio Grande City, Texas, U.S.

Location: The project is located in Rio Grande City, in the southeastern part of the State of Texas, United States. Rio Grande City borders San Roman, Texas to the north, Camargo, Mexico to the south, Los Villareales, Texas to the west, and Las Lomas, Texas to the East.

Location in the Border: The project is located contiguous to the U.S. - Mexico border.

Figure: Figure 1.1 shows the location of Rio Grande City, Texas.

Figure 1.1 Rio Grande City, Texas, U.S.

Demographics

Current Population:	11,923 residents (2000 U.S. Census Bureau)
Growth Rate:	22.2 % (from 2000-2009)
Economically Active Population:	11.9%
Median Household Income:	$ 19,853 USD (2000 U.S. Census Bureau)
Predominant Economic Activity:	Education, health and social services, retail trade and construction.
Poverty Rate:	40.4%, High

Infrastructure and Environmental Services

Community: Rio Grande City

Water Distribution System[1]

Coverage:	100 %
Domestic hookups:	4,925
Commercial hookups:	520
Industrial hookups:	1
Water supply source:	Rio Grande River

Water Treatment System[2]

WTP(s) and treatment technologies:

Name	Technology	Capacity (mgd)
Rio Grande City Municipal Water Treatment Plant	Conventional Treatment Processes consisting of chloramines disinfection, rapid mix, flocculation, sedimentation, filtration, plate settlers and sludge removal equipment.	5.0

Wastewater Collection System[3]

Coverage:	80 %
Domestic connections:	3,973
Commercial connections:	397
Industrial connections:	1

Wastewater Treatment System[4]

Coverage: 100 % of collected wastewater is treated

[1] Source: Rio Grande City, July 2010
[2] Source: Rio Grande City, July 2010
[3] Source: Rio Grande City, July 2010
[4] Source: Rio Grande City, July 2010

WWTP (s) and treatment technologies:

Name	Technology	Capacity (mgd)	Discharge Point	Quality BOD/TSS
City of Rio Grande Municipal Wastewater Treatment Plant	Treatment process consists of grit removal, oxidation ditches, final clarifiers, a chlorine contact chamber, and sludge drying beds.	1.5	Rio Grande River	20/20

Sludge disposal: Disposed of by Allied Waste Company

Solid waste[5]

Coverage: 100 %

Final disposal: Sanitary landfill

Components: The project includes the following components:

Wastewater Collection
Construction of wastewater collection system for unserved area.

- Installation of 900 linear feet of 8" diameter PVC wastewater collection line
- Installation of 580 linear feet of 12" diameter PVC wastewater collection line
- Installation of 6 manholes
- Installation of twenty seven 4" diameter PVC wastewater laterals
- Decommission of 27 failing septic tanks
- Reconstruction of existing street section

Benefited Population:

Project	Population
Wastewater Collection	111 residents

No. of Connections Served: 27 new connections

Project Cost: $448,582.00 USD

Project Map: The following figure shows the location of the proposed project.

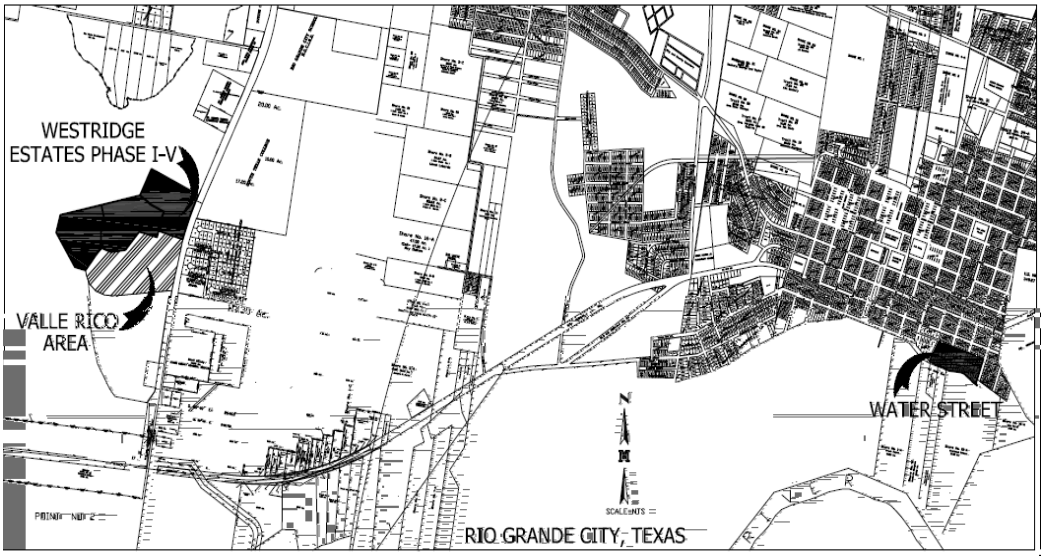

Figure 1.2 Location of Water Street Subdivision.

1.f Project Justification

Project justification:

- Residents in the project area currently lack wastewater collection services and thus wastewater is discharged to latrines, cesspools, failing septic tanks, open drains.

- This condition poses risks to human health due to the potential contact with raw wastewater and organisms that are vectors for associated diseases. In addition, this may present risks for contamination of area soils, as well as surface and underground water bodies.

- The proposed project will provide adequate service to residents who currently lack wastewater collection in the area, thus benefiting approximately 111 residents.

- Wastewater collection service coverage will be increased with the installation of 27 residential connections.

- The risks for transmission of waterborne diseases, as well as those for environmental pollution, will be reduced by the implementation of this project.

Urgency of the project or consequences of no action:

- The no action alternative for the project jeopardizes the health of area residents by exposing them to contact with untreated wastewater. This situation poses the risk of contracting waterborne diseases, such as gastrointestinal disorders. Section 2.b of the Human Health and Environment criterion presents health statistics for the project area.

- Poorly designed, constructed and maintained septic systems would continue to overflow and outflow, exacerbating the risks for surface water contamination and leading to possible groundwater contamination as well as soil contamination.

Prioritization Process Category: Prioritization Process BEIF FY 09/10, Category 1

Pending Activities:

None.

Criterion Summary:

The project complies with BECC's General Criterion.

2. Human Health and Environment

2.a Compliance with Applicable Environmental Laws and Regulations

Environmental and Human Health conditions addressed by the proposed project:

The project will address the following needs:

- Residents in the project area currently lack wastewater collection services and thus wastewater is discharged to latrines, cesspools, failing septic tanks, open drains.

- The lack of this service poses risks to human health due to the potential contact with untreated wastewater and organisms that are vectors for associated diseases. In addition, this may present risks for contamination of area soils, as well as surface and underground water bodies.

Human Health

As shown in the Health Statistics in the section below, there is an important number of cases per year of water borne diseases in Starr County; such as amebiasis, intestinal illnesses, typhoid fever, hepatitis-A, campylobacteriosis, cryptosporidiosis, dengue, salmonellosis, etc. It is expected that the project implementation will contribute to reduce the number of cases of the waterborne diseases mentioned above.

Environmental

Failing septic tanks currently within Rio Grande City do not provide adequate treatment and disposal for wastewater generated in the area. Further, some residents of the project area discharge untreated wastewater directly into the environment (e.g., to streets and vacant land). The lack of wastewater collection and treatment in the project areas is a potential source of disease-causing organisms and soil, surface and groundwater contamination[7].

Untreated wastewater runoffs could potentially reach the Rio Grande River when conditions of overflow appear, contributing to the deterioration of the water quality and riparian habitat of this important binational water body. The following are the environmental conditions addressed by the project:

Wastewater Connections without collection or treatment: 27
Estimated flow of uncollected wastewater discharges: 0.011 MGD

Untreated wastewater discharges contain elevated suspended solids and biodegradable organics which threaten the environment. Suspended Solids can lead to the development

[7]AMEC, "Transboundary Environmental Information Document Improvements to Wastewater Collection and Treatment Systems Juárez Municipality, Chihuahua, Mexico", BECC, November 2008.

	of sludge deposits and anaerobic conditions when untreated wastewater is discharged in the aquatic environment[8]. Suspended solids are an important cause of water quality deterioration leading to aesthetic issues, higher costs of water treatment, and serious ecological degradation of aquatic environments.[9] Biodegradable organics are measured most commonly in terms of BOD_5 (biochemical oxygen demand). If discharged untreated to the environment, their biological stabilization can lead to the depletion of natural oxygen resources and to the development of septic conditions[10].
Environmental and Human Health Benefits the Project Is Expected to Achieve:	
Human Health	According to the "World Health Organization Water, Sanitation and Hygiene Links to Health FACTS AND FIGURES – *updated November 2004", sanitation projects can have the following benefits to human health. • Improved sanitation reduces diarrhea morbidity by 32%. • Access to safe water and sanitation facilities and better hygiene practice can reduce morbidity from ascariasis by 29%. Project implementation is expected to contribute to a reduction of the number of cases of waterborne diseases in Rio Grande City.
Environmental	By eliminating the use of latrines, septic tanks, and open drains, the proposed project will contribute to reduce the potential for groundwater and surface water contamination resulting from the inappropriate disposal of untreated wastewater.
The project meets the following applicable environmental laws and regulations:	The project complies with: - Texas Administrative Code, Title 30, Part 1, Chapter 217: Design Criteria for Domestic Wastewater systems. In addition, coordination and approval of the following agencies was required for the development of the project: - US Army Corps of Engineers - USDA National Resource Conservation Service - US Environmental Protection Agency

[8] Metcalf & Eddy Inc, "Wastewater Engineering: Treatment, Disposal, Reuse", 3rd ed., McGraw Hill, New York, 1991.
[9] G.S Bilottal and R.E Brazier, "Understanding the influence of suspended solids on water quality and aquatic biota", Water Research, Volume 42, Issue 12, June 2008, Pages 2849-2861
[10] Metcalf & Eddy Inc, "Wastewater Engineering: Treatment, Disposal, Reuse", 3rd ed., McGraw Hill, New York, 1991.

- International Boundary and Water Commission (IBWC)
- Federal Emergency Management Agency/Local Floodplain Administrator
- US Department of the Interior-Fish and Wildlife Service and National Park Service
- Texas Historical Commission
- Texas Parks and Wildlife Department
- Texas Commission on Environmental Quality
- Coastal Coordination Council
- Border Environment Cooperation Commission
- Starr County Floodplain Administrator
- Rio Grande City Floodplain Administrator

2.b Human Health and Environmental Impacts

Human Health Impacts

Direct and Indirect Benefits:

- The project will prevent the contamination of water supply sources for human consumption.
- The project will reduce the risk of transmission of waterborne diseases resulting from the potential contact with raw wastewater and vector organisms.
- The project will improve the quality of life of the area residents by providing access to wastewater collection services.

Health statistics:

Waterborne diseases are caused by pathogenic microorganisms that are directly transmitted as a result of inadequate wastewater disposal practices which may result in human contact with raw wastewater and unsafe water supplies. Waterborne diseases may be caused by protozoan, viruses, bacteria, and intestinal parasites.

An individual may become ill after drinking water that has been contaminated with these organisms; eating uncooked foods that have been in contact with contaminated water; or through poor hygiene habits that contribute to the dissemination of diseases by direct or indirect human contact.

The following table shows waterborne disease statistics for Starr County. This project will contribute to enhance public health in the area.

Table 2.1 – Starr County Health Statistics

Number of Cases Reported					
Disease	**2005**	**2006**	**2007**	**2008**	**2009***
Amebiasis	1	0	0	2	0
Botulism, wound	0	0	0	0	0
Campylobacteriosis	0	1	3	5	4
Cryptosporidiosis	0	1	0	0	0
Cyclosporiasis	0	0	0	0	0
Dengue	0	0	1**	0	0
Escherichia coli, enterohemorrhagic	0	0	0	0	0
Hepatitis A (acute)	1	0	3	0	0
Malaria	0	0	0	0	0
Poliomyelitis, acute paralytic	0	0	0	0	0
Salmonellosis	1	7	20	20	19
Typhoid Fever	0	0	0	0	0
Vibrio infection, including cholera	0	0	0	0	0
West Nile fever	0	0	0	0	0
West Nile neuroinvasive disease	0	0	0	0	0

* Through October 23, 2009
** Classified as an imported case, with exposure in Mexico
Source: Rio Grande City

Environmental Impacts

Direct and indirect benefits:

- Potential contamination of surface and underground water bodies will be reduced.
- Potential soil contamination will be reduced.
- Septic systems and cesspools will be decommissioned making the surroundings safer from risks of untreated wastewater exposure.
- The project will have a positive impact in air, water and biological resources, as wells as socioeconomic and municipal services, by reducing the direct discharge of wastewater from septic systems into yards, drainage ditches, and groundwater.

Environmental impacts:

The implementation of this project will help eliminate wastewater discharges to latrines or open drains, positively impacting ground and surface water bodies. Wastewater produced in the Water Street subdivision will be collected and treated at the Rio Grande City Municipal WWTP, improving the quality of groundwater and surface waters.

Minor environmental impacts are anticipated from the development of the different project phases, provided the project tasks are implemented in accordance with the

	specifications of the Environmental Information Document (EID) and taking into account the mitigation measures established therein. Potential impacts include the following: <u>Construction Phase</u> - Increase of airborne dust would be expected. - Construction machinery emissions. - Traffic disruption would be limited to the area under construction. Temporary roadway blockages, presence of workers in the area.
Mitigation measures:	Mitigation measures established in the EID include: - Ensure that all requirements of the US COE "Nationwide Permit 12" and TCEQ requirements are complied with during the construction of the project. - Efforts to reduce dust, including watering of the contributing areas, would be required as part of the construction phase operations. This short-term impact would be expected to be negligible to moderate. - Proper vehicle maintenance to reduce emissions - Safety precautions will be taken including traffic control measures and this will be performed according to the Uniform Traffic Control guidelines for construction operation. Traffic Control measures would prevent potentially hazardous situations. Short-term impacts to area traffic and safety would be minimal and no long-term impacts are expected.
Impacts:	The environmental impact resulting from the implementation of the proposed project 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	Due to the proximity of Rio Grande City to various communities in Starr County and nearby border communities in Mexico, there are frequent border crossings between these communities. The construction of wastewater collection lines in currently unserved areas will have a direct positive impact on the health of residents of the entire region, since these actions will reduce the risk for waterborne diseases caused by inappropriate wastewater management practices. Furthermore, the project's implementation will reduce the potential for contamination of shared water bodies such as Rio Grande River.

Formal Environmental Clearance	
Environmental Clearance:	Pursuant to the U.S. National Environmental Policy Act (NEPA), an Environmental Information Document (EID) was developed and submitted for consideration to the EPA. A Finding of No Significant Impact (FONSI) was issued by U.S. Environmental Protection Agency dated November 6, 2006 for the construction of a 2006 Rio Grande City, Rio Water Supply Corporation (WSC), El Tanque WSC, and El Sauz WSC Water and Wastewater Improvements Project. The FONSI was validated by EPA to assure that the current Rio Grande City Project was covered under the original FONSI/Environmental Assessment issued in November 2006. EPA approval was given on November 4, 2009.
Results Measurement Project Matrix Summary	
Results:	
1. Provide Access to Wastewater Collection	**Indicators and Targets** Increase wastewater collection service (Target = 27 new connections) **Baseline Value** Connections with wastewater collection service= 0
2. Reduction of untreated WW discharges to water bodies or other (Protection of natural resources)	**Indicators and Targets** Eliminate untreated wastewater discharges (Target= 0.011 MGD) **Baseline Value** Eliminated wastewater discharges = 0 MGD
Outputs:	Goods and services that the project will deliver: - Domestic wastewater connections: 27 - Construction of 900 lf, 8" diameter wastewater pipeline - Construction of 580 lf, 12" diameter wastewater pipeline - Installation of 6 manholes - Installation of 27 domestic connections, 4" wastewater laterals - Decommission of 27 failing septic tanks - Reconstruction of existing street section

Pending Activities:

None.

Criterion Summary:

The project complies with BECC's Human Health and Environmental Criterion.

3. Technical Feasibility

3.a Technical Aspects

The proposed project consists of providing first time wastewater collection service to Water Street subdivision, currently relying on failing septic tanks. The project will require the construction of wastewater collection system of approximately 900 linear feet of 8-inch and 580 linear feet of 12-inch PVC sanitary sewer gravity lines, installation of 6 manholes, installation of 27 new domestic connections of 4" wastewater laterals, decommission of 27 failing septic tanks and reconstruction of existing street section. The project will benefit approximately 111 residents.

Project Development Requirements

Design criteria:

The project final design was developed following the guidelines established by EPA, Rio Grande City, and TCEQ, for the construction of this type of infrastructure. The final design was reviewed and approved by EPA, BECC, NADB and Rio Grande City.

Additionally, the construction to be accomplished is not expected to impact protected areas or ecological reserves. The existing WWTP is currently at 57% capacity. The inflow to the existing WWTP as a result from the project will be minimal and would increase the percent capacity by less than 1%.

Components

The project includes the following components:

Wastewater Collection
Construction of wastewater collection system for unserved area.

- Installation of 900 linear feet of 8" PVC wastewater collection line
- Installation of 580 linear feet of 12" PVC wastewater collection line
- Installation of 6 manholes
- Installation of 27 new domestic connections of 4" PVC wastewater laterals
- Decommission of 27 failing septic tanks
- Reconstruction of existing street section

Design criteria is as follows:

- Texas Administrative Code, Title 30, Part 1, Chapter 217: Design Criteria for Domestic Wastewater systems
- To receive sewer service, the project sponsor will require decommission of the existing on-site systems.

The final design includes the implementation of green building practices as part of the technical construction specifications.

The final design evaluated system layouts, which minimized energy-intension operations. Layouts were evaluated to minimize the number of lift stations and excessive deep lines. It also maximized the use of the natural topography.

Selection of gravity sewer collection was based on favorable natural topography and existing infrastructure, and evaluated means to improve energy efficiency.

The project was designed to eliminate nuisance conditions and inefficient operations as well as to increase the useful life of the infrastructure.

Appropriate capacity needs were determined to eliminate the risk of overbuilding. Capacity of the system was designed for existing population and reasonable future growth. Alternative materials and equipment options were evaluated to be environmentally preferable or achieve greater operation efficiencies.

Final design minimized the requirements for pavement replacement, landscape disturbance, and intrusive construction practices by placing gravity lines in existing, previously disturbed road right of ways, or alleys.

Appropriate Technology

Assessment of Alternatives:

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

- Constructability
- Operation and maintenance cost
- Ease of operation and system reliability
- Compliance with current regulations
- Use of sustainable materials

Wastewater Collection

Alternative 1 – No Action.
This option would leave the 111 residents of Rio Grande City on septic systems and would not upgrade the existing collection system to handle projected flows. Alternative 1 is not a viable alternative because the citizens in Rio Grande City have expressed strong concern for risks associated with current conditions and this alternative will not allow the city to meet collection system requirements in the future as the population increases.

Alternative 2 – Upgrade collection system.
This option adds 111 residents to the Rio Grande City collection system. The subdivision can be served with gravity lines connecting to the city's existing gravity system. Water Street subdivision needs the construction of approximately 900 lf of 8" and 580 lf of 12" PVC sewer lines, and 27 new domestic wastewater laterals of 4" in diameter. Also, the installation of 6 manholes will be required in addition to the decommission of 27 failing septic tanks and reconstruction of street section.

Land Acquisition and Right-of-Way Requirements

Requirements: Wastewater collection system will be installed on existing municipal rights-of-way and easements. The project does not require the acquisition of additional land.

Project Tasks and Timelines

Project	2011												2012											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
WATER STREET																								

Final Design Bidding Process Construction

Construction Start Date: October 2011

Construction Timeframe: Ten months

3.b Management and Operation

Project Management

Resources: The management, construction, and operation and maintenance of the proposed project will be responsibility of the project sponsor that has the necessary resources and staff for this purpose.

Operation and Maintenance

Organization: The project sponsor serves approximately 5,446 water hookups and 4,371 sewage connections, and has an appropriate operation and maintenance program in place.

The utility consists of the following departments and/or offices.

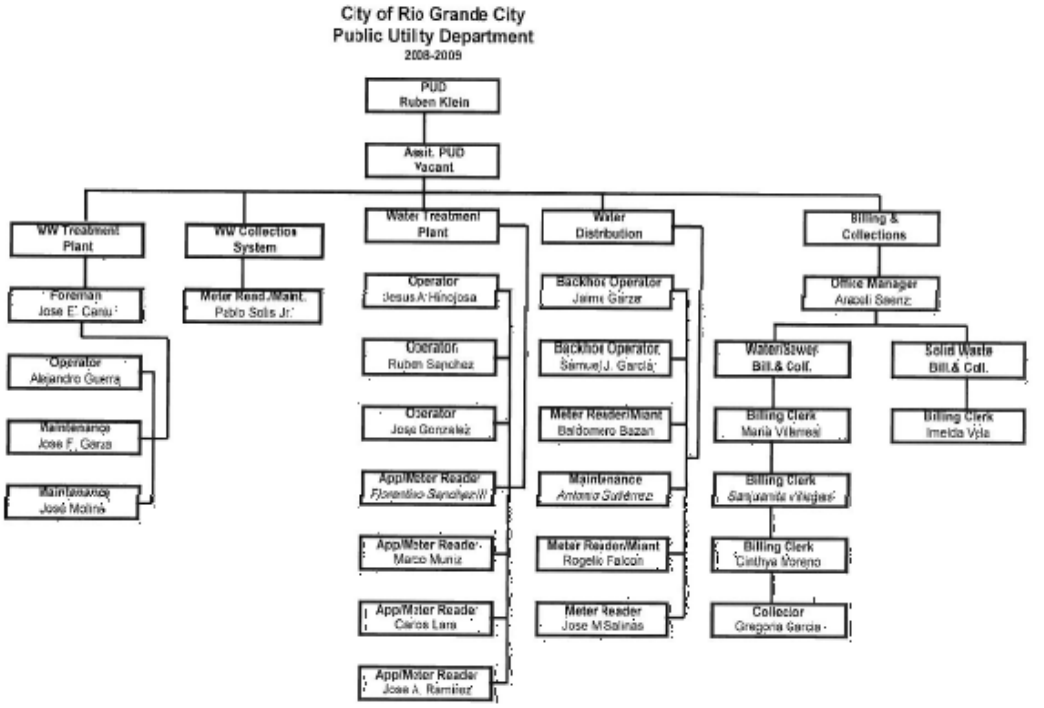

Figure 3.1. Organizational Chart

Pre-treatment: Pre-treatment program is not required by the project. The City complies with 30 Texas Administrative Code (TAC) §315.1.

Operation Plan: The Final Design incorporates an Operation and Maintenance manual that includes the primary tasks needed to ensure a proper operation of the system and to prevent breakdowns in the proposed infrastructure.

Permits, Licenses, and Other Regulatory Requirements: The project sponsor has obtained the following:

- Sludge Disposal Permit
- Wastewater Discharge Permit (NPDES)
- EPA Environmental Clearance (FONSI)
- IBWC/CILA Concurrence (NEPA)
- Certificate of Convenience and Necessity
- Model Subdivision Rules
- State Department of Transportation Clearance
- Nationwide Permit 7 (USACE)

Reviewing Agencies: BECC, NADB, EPA, IBWC, CILA, Rio Grande City, and US COE

Pending Activities:

None.

Criterion Summary:

The project complies with BECC's Technical Feasibility Criterion.

4. Financial Feasibility

4.a Proof of Financial Feasibility

Financial Conditions

Information submitted: Rio Grande City 2005-2009 financial statements.

Financial Analysis Results: Project to be wholly funded with BEIF as requested by EPA.

Project Costs, Financial Structure and other plans for Capital Investment

Item: Wastewater Collection Improvements Project in Rio Grande City, Texas.

Final Cost: **US$ 448,582**

Financial Structure:

Source	Type	Amount (USD)	%
NADB-BEIF-Construction Assistance	Grant	$448,582	100
Total:		$448,582	100

Primary Source of Income

Source of Income: Rio Grande City utility revenues.

4.b Legal Considerations

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

Pending Activities:

None.

Criterion Summary:

The project meets all applicable financial feasibility criteria.

5. Public Participation

5.a Community Environmental Infrastructure– Community-wide Impact

Local Steering Committee

Date of Establishment: The Local Steering Committee was formally installed on May 25, 2010 at a meeting held in City Hall.

Local Steering Committee Members: During this meeting, the Local Steering Committee was formed and comprised of the following members:

President:	Joe Smedley
Secretary:	Alicia Hinojosa
Treasurer:	Jose Hinojosa
Alternates:	Dania L. Canales
	Elisa Y. Beas
	Blanca Juarez
	Ruben Chapa
	Mike Hernandez

Date of Approval of Public Participation Plan: The Comprehensive Public Participation Plan developed by the Local Steering Committee was approved by the BECC on October 5, 2010.

Public Access to Information

Public Notice: The project's environmental, technical and financial information was made available to the public for review.

The Local Steering Committee, with assistance from the project sponsor, prepared the following to inform the community about the project:

- Flyers
- Newspaper adds
- Presentations

Additional Outreach Activities:

- Development and dissemination of a fact sheet
- Conducted surveys to document comments and support to the project
- Meetings with local organizations

Public Meetings: A 30-day public meeting notice was published in the Monitor on January 28, 2011.

A public meeting was conducted to inform the public about the environmental, technical, and financial aspects of the project. The meeting was held on March 1st, 2010. Approximately 8 local residents attended the meeting held by the Local Steering

	Committee and Rio Grande City representatives. 6 exit surveys were completed, demonstrating 100 % understanding and support for the project.
Final Public Participation Report	
Final report:	The Local Steering Committee and the Rio Grande City developed the Final Public Participation Report demonstrating that the proposed objectives fully met BECC's Criteria.
Post-Certification Public Participation Efforts	
Post-certification activities:	The City, in coordination with Local the Steering Committee, provided a general description of public participation activities that may be carried out after the project has been certified supporting its implementation and long-term feasibility.

Pending Activities:

None.

Criterion Summary:

The project complies with BECC's Public Participation Criterion.

6. Sustainable Development

6.a Institutional and Human Capacity Building

Project Operation and Maintenance:

The project sponsor is the responsible institution for the operation and maintenance of:

- Wastewater collection system
- Wastewater treatment system
- Water distribution system
- Water treatment system
- Storm water drainage system

The project sponsor has presented the necessary institutional and human capacity to operate and provide maintenance to these systems.

Human and Institutional Capacity Building:

Several actions within the scope of the project that contribute to the institutional and human capacity building of the Rio Grande City are:

- Provide and improve wastewater collection service in a continuous, efficient, and cost-effective approach, and compliant with applicable local, state, and federal regulations.
- Provide training and continuing education to operating staff throughout its different areas, in order to carry out adequate maintenance to the new and existing infrastructure and offer essential services that meet the needs of the community.
- Implement a rate structure to make the project affordable and sustainable.

Additional Plans or Programs:

Starr County has an educational program that aims to promote conservation and the efficient use of water among the community.

6.b Conformance with Applicable Local, State, and Regional Laws and Regulations and Conservation and Development Plans.

Local and Regional Plans Addressed by the Project:

The proposed project concurs with the plans and actions described in the following documents:

- The Rio Grande City Engineering Feasibility Report sets the need to develop basic sanitary infrastructure in Rio Grande City, such as wastewater collection service.
- The project complies with the U.S.-Mexico Border 2012 Environmental Program by meeting Goal 1 (Reduce water contamination) and Objectives 1 (promoting an increase in the number of household connections to wastewater collection and treatment services) and 4 (promoting improved 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 complies with State regulations applicable to wastewater collection.
Impacts to Neighboring Communities in Mexico:	The project implementation will prevent untreated wastewater discharges to the binational water body of Rio Bravo from infiltrating into the groundwater which is shared with Mexico.

6.c Natural Resources Conservation

- The project implementation will reduce environmental deterioration by expanding the wastewater collection system and providing the necessary means to serve the project area.
- Wastewater will be collected and conveyed to the existing WWTP to improve the quality of wastewater to be discharged according to applicable environmental regulations and standards.
- The project will reduce potential risks to human health and contamination of aquifers and other water bodies as a result of raw wastewater discharges.
- The final design includes green building practices in the technical construction specifications.

6.d Community Development

- The project implementation is crucial for the community development. The tasks proposed by the project will contribute to the appropriate wastewater collection which will reduce the proliferation of water-borne and arboviral diseases.
- The construction of the wastewater collection system will promote community development, as it will reduce contamination in the Rio Grande City and improve the quality of life for local residents.
- Treated wastewater will be available for other uses, such as, agricultural and non-drinking public purposes.
- The project will help the community increase its coverage of wastewater collection, which will promote the development of the community, since it will reduce contamination on the streets caused by potential wastewater runoff. In addition, it supports other infrastructure development, such as street paving in areas that currently lack this service.

Pending Activities:

None.

Criterion Summary:

The project complies with BECC's Sustainable Development Criterion.

Available Documents (only available in English):

- City of Rio Grande City Water and Wastewater Improvements Project Facility Plan, CDM, May, 2006.
- City of Rio Grande City Water and Wastewater Infrastructure Improvements Project Environmental Information Document, May 2006.
- Engineering Feasibility Report, Melden & Hunt, Inc., August 2009.
- Finding of No Significant Impact, US EPA, November 6, 2006.
- Final Engineering Design Report City of Rio Grande City, Texas Wastewater System Improvements Project, Melden & Hunt, Inc., March 2010.
- Rio Grande City Final Design
- Public Participation Plan Rio Grande City Wastewater Collection System
- Final Public Participation Report