Border Environment Cooperation Commission
Regional Solid Waste Project in the
Frontera Ribereña Region of Tamaulipas

1. General Criteria

1.a Project Type

Project Name:	Regional Solid Waste Project in the Frontera Ribereña Region of Tamaulipas
Project Sector:	Municipal Solid Waste

1.b Project Category

Category:	Municipal Environmental Infrastructure Project – Community-wide Impact.

1.c Project Location and Community Profile

Communities:	Municipalities of: Nueva Ciudad Guerrero, Ciudad Mier, Miguel Aleman, Camargo and Gustavo Diaz Ordaz, Tamaulipas.
Location:	The State of Tamaulipas is located in the northeastern part of Mexico and next to the United States. The region known as "Frontera Ribereña" includes the northwestern part of the state, which is adjacent to Nuevo Leon to the south, the Municipality of Reynosa to the east, and the Municipality of Nuevo Laredo to the west.
Location within the border:	Proposed site for the construction of the regional landfill is located 3.5 Km South U.S.-Mexico Border and 7.5 Km west of San Juan River.

Image:

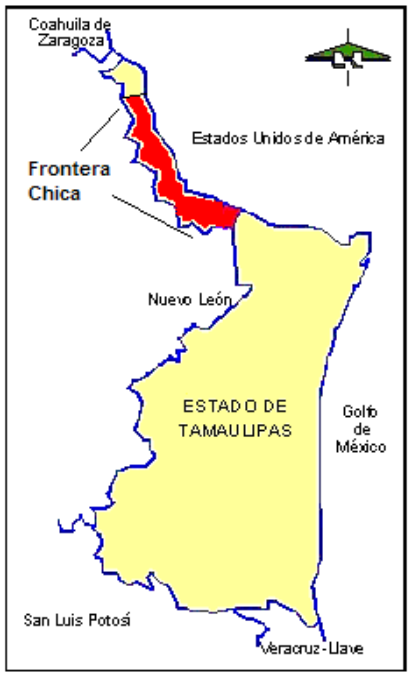

Figure 1. Location of Frontera Ribereña

Demographics	
Current Population:	86,414 inhabitants within the five municipalities.
Growth Rate:	2.15 %
Reference:	INEGI, 2000 and CONAPO, 2008
Economically active population:	26,319 inhabitants
Reference:	INEGI, 2000 CONAPO, 2008
Median per capita income:	$ 3,072 pesos per month.
References:	BECC estimation based on statistics developed by INEGI and the National Commission of Minimum Wages.
Primary economic activities:	Agriculture, Commerce and Services
Marginalization rate:	Low.
Services	
Community:	Five municipalities average
Drinking Water System:	
Coverage of Drinking Water:	91%
Wastewater Collection System:	
Coverage of Wastewater Collection System:	73%

Wastewater Treatment:
Coverage of Wastewater Treatment: 18%

Components:

Additional comments: The solid waste generated in the five municipalities is disposed of in an open dumpsite that does not comply with the requirements established in NOM-083-SEMARNAT-2003.

Benefited population: 86,414 inhabitants within the five municipalities.

Project cost: $44.38 million pesos

Project Map:

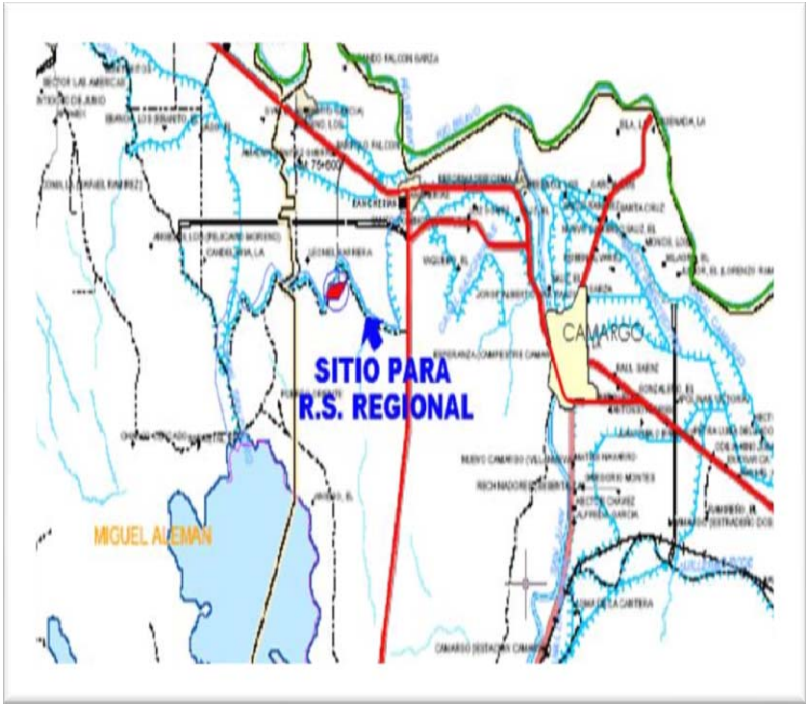

Figure 2 Location of the Regional Sanitary Landfill for the Frontera Ribereña Region

Project justification

Project justification: Due to concerns related to air pollution, soil and water contamination experienced in the five existing open dumpsites and consequently, based on ongoing complaints from residents of these communities and nearby Texas cities, in 2006 the government of Miguel Aleman purchased a tract of land to establish a regional sanitary landfill for final disposal of municipal solid waste in the Frontera Ribereña region, meeting the requirements established by Official Mexican Standard NOM-083-SEMARNAT-2003.

	The project will improve current solid waste management conditions, reducing thus the possibility of waste dispersion and the risk of diseases associated to an inadequate handling of waste and the seepage of leachates that may contaminate local water tables. In addition, the project will improve waste collection services and the overall quality of life of residents of the Frontera Ribereña, Tamaulipas. Transfer stations will help reduce solid waste management and disposal costs in support of the local economy. As to the potential transboundary impacts, the project will create a positive impact by reducing the risk of fires, contributing thus to improve air quality in the area. In addition, improving the operation of the sanitary landfill will help prevent the practice of garbage burning by pickers that is common at the existing dumpsite. The project will also help complete the closure of existing open dumpsites that fail to meet the guidelines established by NOM-083 pursuant to the construction of a sanitary landfill and improvements to waste collection equipment.
Project need or consequences of the no action alternative:	The deficient management of solid waste in the five municipalities causes environmental problems such as air quality problems, pollution in the underground water, and potential explosion and fire risk in the current dumpsite, as well as the development of vectors.

Pending issues:

None

Criterion summary:

The project falls within BECC's core sectors and complies with the general criteria.

2. Human Health and Environment

2.a Compliance with Applicable Environmental and Cultural Resources Laws and Regulations

Environmental and public health needs addressed by the proposed project:

The five Municipalities do not have a solid waste landfill for the management of municipal solid waste.

The lack of a suitable solid waste landfill to dispose the solid waste generated by the population means that solid waste is disposed of in the dumpsite and generates a risk of fires and risks to public health due to the proliferation of vectors and disease transmission to the community.

The problem in the area of Frontera Ribereña is the lack of a solid waste landfill that complies with the requirements established in NOM-083-SEMARNAT-2003. Currently all urban wastes are deposited in ways which do not meet environmental regulations, furthermore, due to a lack of an appropriate operation dump site workers' health is at risk.

In the current dumpsites there are potential risks to public health due to the proliferation of vectors and disease transmission to the community.

The project meets the following applicable laws and regulations:

The project complies with Mexican Official Law NOM-083-SEMARNAT-2003, Environmental Protection Specifications for Site Selection, Design, Construction, Operation, Monitoring, Closure, and Ancillary Works for Solid and Hazardous Waste Disposal.

2.b Human Health and Environmental Impacts

Human Health Impacts

Direct and indirect benefits to human health:

- Reduce inadequate solid waste disposal
- Reduce the pollution of groundwater sources
- Reduce soil contamination

Health statistics:

Human health statistics for the Frontera Ribereña Region are limited, but there is information reflecting a high incidence of various diseases, including hepatitis A, measles, shigellosis, and tuberculosis, which have been associated to unhealthy conditions such as those created by the inadequate handling of solid waste.

Table 1 shows the most recent public health studies conducted in communities adjacent to the United States-Mexico border. The conditions in Frontera Ribereña are very similar to those of communities in the State of Texas. As shown in Table 1, occurrence rates for diseases such as hepatitis or shigellosis are almost four times higher in the Texas border than in the rest of the United States.

Table 1
Diseases and Occurrence Rates in United States-Mexico Border Communities

AREA	Disease				
	Hepatitis A	Measles	Shigellosis	Tuberculosis	AIDS
Overall U.S. population	12.64	11.2	10.9	10.3	16.7
Arizona Border	39.4	9.8	38.3	6.9	15.1
California Border	30.7	61.9	22.1	12.7	22.0
New Mexico Border	46.9	14.6	21.2	7.3	3.9
Texas Border	40.4	38.9	49.1	26.5	7.9

Source: National Center for Health Statistics. Centers for Disease Control and Prevention, Vital Statistics Database. HRSA, n.d. http://bphc.hrsa.gov/bphc/borderhealth/table1.htm

Images of support:

The figure below shows the current condition of solid waste in the Frontera Ribereña Region:

Figure 3. Open dump site at Frontera Ribereña Region

Figure 4. Garbage burning at Frontera Ribereña Region

Environmental Impacts

Direct and indirect benefits:

Environmental impacts:

Environmental impacts are expected to be minimal during the phases of project development, as long as the project is implemented according to the guidelines and proposed mitigation specified in the Environmental Document clearence. Some of the potential impacts include:

Construction Phase:
- Dust emissions
- Air pollutants emissions from heavy equipment
- Temporary street closure
- Presence of workers in the construction site

Operational Phase:
- Failure during operation

Mitigation measures:

Mitigation measures include:

- Application of water to reduce dust
- Vehicle tune-up to reduce air pollutants emissions
- Placement of preventive signs to avoid risky situations

Impacts:

The environmental impact will be, in general, positive due to implementation of the project since:

The inadequate disposal of solid waste will be reduced, gas emissions due to solid waste burning will be reduced, the generation of methane gas will be reduced due to decomposition of organic matter, the

	aesthetic value of the area will improve and in general solid waste disposal will be greatly improved, thus reducing pollution to the environment and improving the quality of life for the inhabitants of the region.
Transboundary Impacts	
	No adverse transboundary impacts are anticipated as a result of the construction of the proposed Frontera Ribereña Region sanitary landfill. Moreover, indirect benefits are expected to be obtained from a reduced risk of infectious diseases associated to the inadequate handling of solid waste by area residents, who maintain a commercial, tourist, and cultural exchange with U.S. border communities. Additionally, the project will help reduce the illegal burning of waste, improving thus air quality for the border area.
Formal Environmental Clearance	
Environmental Clearance:	According to the provisions of the Law on Ecological Balance and Environmental Protection pursuant to Environmental Impact Statements, the State Directorate of Ecology determined that the project requires an Environmental Impact Assessment (EIA). Said EIA was prepared and submitted to the Directorate, and the issuance of a final finding was done on October 26, 2007 (Official communication MIA/MG/014/2007). And a complementary official communication dated October 13, 2008 (No. A.A.D.S./D.G.G.P.A./D.G.A./I.P.-057/2008).

Pending issues

None.

Criterion Summary:

The project addresses a major human health and environmental issue.

3. Technical Feasibility

3.a Technical Aspects

Project Development Requirements:

Design criteria:

The preliminary engineering studies and final design for the sanitary landfill were prepared according to NOM-083-SEMARNAT-2003 (Environmental Protection Specifications for Site Selection, Design, Construction, Operation, Monitoring, Closure, and Ancillary Works for Municipal Solid and Hazardous Waste).

The project has the following components:

The project consists of the construction and equipment for a sanitary landfill, located within the municipality of Camargo; the construction and equipment of two transfer stations: one for Ciudad Mier and Nueva Ciudad Guerrero, and the second for Díaz Ordaz, closure of five dumpsites and the purchase of recollection equipment for the communities of Nueva Ciudad Guerrero, Ciudad Mier, Ciudad Miguel Alemán, Ciudad Camargo, and Ciudad Gustavo Díaz Ordaz.

Solid Waste Generation

The daily waste generation rate estimated for the municipalities involved in the project is 84.47 tons of residential waste and waste from other sources (commercial and industrial). This data was used to estimate a 0.999 kg/day per capita waste generation rate. For the determination of per capita waste generation, volumetric weight, percentage of recoverable material, and organic matter, the project followed the methodology established by Mexican Standard NMX-AA-61-1985.

Table 2 shows the daily waste generation rate for Frontera Ribereña communities

Table 2

Municipality	Generation ton/day
Nueva Ciudad Guerrero	10.03
Ciudad Mier	10.68
Ciudad Miguel Alemán	33.26
Ciudad Camargo	16.11
Ciudad Gustavo Díaz Ordaz	14.39
Total	**84.47**

Solid Waste Collection System
Solid waste collection coverage provided by Frontera Ribereña municipal governments is approximately 94%.

The general features of the municipal solid waste collection system are as follows:

- The collection method used is *curbside collection* with garbage trucks that travel slowly through local streets while employees empty metal waste drums found along the way.
- Garbage collection is provided along five routes that usually operate from Monday through Friday, and waste is collected once a week in average.
- On average, waste collection is done during a single morning shift, from 7:00 a.m. to 15:00 p.m.

Each of the trucks carries a collection crew consisting of one driver and two helpers. Helpers collect residential waste contained in metal drums as each truck travels through its route.

Appropriate Technology

Assessment of alternatives:

The alternatives considered for the construction of the landfill are:

Construction of Sanitary Landfill

Alternatives considered for the construction of the sanitary landfill included the following scenarios:

a) **No action alternative.** The first alternative was to take no action regarding existing dumpsites and the need to establish a sanitary landfill. This alternative was reviewed and ruled out as unacceptable due to its negative implications for the environment and the health of Frontera Ribereña residents.

b) **Construction of a sanitary landfill at each of the municipalities.** The second alternative proposed building a sanitary landfill for each of the communities. This alternative was reviewed and ruled out due to the high initial investment required elevated operating costs for each landfill and transportation system.

c) **Construction of sanitary landfill at a new location.** The third alternative reviewed proposed the construction of a regional sanitary landfill at a strategic location that would offer advantages for the handling and transference of solid waste from the different communities to the landfill, with the purpose of minimizing initial investment, operation, maintenance, and transportation costs. This proposal was the preferred alternative.

Transfer Stations for solid waste management and transportation in the Frontera Ribereña Region

Alternatives considered for the construction of transfer stations included the following scenarios:

a) No action alternative. The first alternative proposed was to take no action regarding the implementation of transfer stations. This alternative considered that solid waste transportation would be from collection sites existing at each of the communities using transportation and mechanical equipment for this purpose. This alternative was reviewed and ruled unacceptable due to the high operational costs related to the need to make several trips with this low capacity equipment, in addition to the maintenance costs required to maintain the aforesaid collection equipment in good operating conditions.

b) Construction of 3 transfer points in 3 of the communities (Mier, Díaz Ordaz, and Nueva Ciudad Guerrero) and 2 transfer stations in Camargo and Miguel Aleman. This proposal was rejected due to the high initial investment cost, in addition to high operation and maintenance costs for the entire system.

c) Construction of 3 transfer stations in Mier, Diaz Ordaz, and Nueva Ciudad Guerrero (Camargo and Miguel Alemán will transport their waste directly to the regional sanitary landfill). This alternative involves the construction of three transfer stations at the same places where existing dumpsites are located in Ciudad Mier, Díaz Ordaz, and Nueva Ciudad Guerrero. Additionally, Miguel Aleman and Camargo will transport their solid waste directly to the regional sanitary landfill. This proposal was rejected due to the high initial investment

cost, in addition to high operation and maintenance costs for the entire system.

d) **Constructions of 2 transfer stations, one for Mier and Nueva Ciudad Guerrero and another for the Diaz Ordaz.** This alternative involved the construction of two transfer stations in the region one for Mier and Nueva Ciudad Guerrero and the other for Díaz Ordaz. Camargo and Miguel Aleman would transfer their solid waste directly to the landfill. The review and assessment of initial investment, operation, and maintenance costs helped define this as the preferred alternative.

The proposed site is owned by the City of Miguel Aleman; therefore, no additional investments will have to be made for land purchases and/or leases.

The transference of solid waste will be direct, that is, the collection truck will empty collected waste into the transfer box. In light of the above, the design proposes that the transfer box be located at a lower level than the waste collection truck.

Final Disposal Site
Consistent with the amount of waste produced by the community, within a near horizon (approximately 85 tons/day), the type of sanitary landfill required for this city is as defined by NOM-083 as a Type B facility.

The site meets the characteristics established by Mexican Standard *NOM-083-SEMARNAT-2003* under section 6.1 "*Restrictions for the location of the site*," as summarized below:

- The site is located more than 15 kilometers away from the center of runways in the Frontera Ribereña that serve the public.
- The site owned by the city is not located within a protected natural area.
- Since the community has more than 2,500 residents, the project meets the applicable standard, which establishes that the final disposal site must be located at a minimum 500 m (five hundred meters) away from city limits as currently defined or projected in the urban development plan.

- The site is not located within tidal marshes, mangroves, lagoons, swamps, wetlands, estuaries, alluvial or fluvial plains, aquifer recharge, or archeological areas, or over caverns, soil fractures, or geological faults.
- The final disposal site will be located outside of 100-year flood plains.
- The distance between the final disposal site and surface water bodies with continuous flow, lakes, and lagoons, will be over 500 m.
- There are no operating or abandoned water wells within a perimeter of 500 meters from the site's outer limits

Field studies developed on site have concluded that the proposed location consists of unleveled ground with a 13-meter maximum elevation, and is an area suitable to be used as a sanitary landfill; the material existing on site may be used for the landfill's daily and final cover. The soil has a natural permeability that ranges between $1x10^{-5}$ cm/sec and $1x10^{-8}$, so preparation of the site will be required to reach a uniform permeability level that meets the maximum permeability value established by applicable regulations ($1x10^{-7}$), and the reach a compaction rate of at least 80% of the Standard Proctor Test. Project Sponsor has decided to use 60 mm geo-membranes as a warranty for soil impermeability.

The following criteria have been considered in the design of the sanitary landfill:

1. The Regional Sanitary Landfill project for Frontera Ribereña, Tamaulipas includes five construction and operation phases for solid waste disposal.
2. The landfill will operate under a Combined Method system, which consists primarily of excavating site inlays (there are excavations but no trenches) and then creating seven layers of waste during the different phases of the project.
3. Cover materials will be obtained from trench excavations. This and other remaining material will be obtained from growth areas and will be kept in the storage or free areas available at the site. It will be extracted according to schedule as the construction of phases and daily cells moves forward.

4. The landfill's life cycle has been estimated at 30 years.
5. With respect to the final disposition of the site, it will be used exclusively as a green area. Reforestation with species native to the region has been recommended; this will help integrate the landfill with the natural environment and create a habitat for the region's wildlife and vegetation. This action will also prevent erosion of the final cover at the different phases and layers that make up the Regional Sanitary Landfill for Frontera Ribereña, Tamaulipas.
6. Biogas generation will be controlled using 10 cm polyethylene tubes placed throughout the entire landfill site with 2 wells per hectare.
7. The leachate control system will consist of an internal drainage system that will use canals filled with boulders to convey leachate to collection ponds and the use of 60 mm polyethylene geo-membrane.
8. The proposed facility will occupy 15.74 hectares.

Additionally, the sanitary landfill will include complementary structures for its operation: perimeter fence, scale booth, guard booth, office building, restrooms, and a storage shed for large equipment, as well as interior roads for garbage collection vehicles and the transfer truck.

The following machinery and equipment will be used for the operation of the landfill:

- Caterpillar tractor (D6R or similar) to manage and compact waste, as well as the daily cover.
- Chain drive front loader to handle excavation materials that will be used as daily cover.
- Backhoe (428C or similar) to arrange waste within the daily cell.
- PS 150 B pneumatic compactor to compact waste prior to applying the cover.
- 10 m^3 water tank truck.
- Dump truck to transport cover material.
- Scale to weigh collection vehicles and the transfer truck, with control and statistical

software supplemented by a PC to operate the software and save data.

- Pick Up truck to be used by the landfill staff inside and outside of the facility.
- 3-ton truck for internal use

Land Acquisition and Right-of-Way Requirements

Requirements:

The municipality of Miguel Aleman owns 15.74 hectares of land located approximately 17 Km southeast of the head of the municipality, about 3 Km from Federal Highway 2.

Work Tasks and Schedule

Project Schedule:

The project has been proposed to be developed in five phases during the 2007-2037 period. The first phase includes the preparation of cells and closure of existing dumpsites; this phase will have a 3.17 years life cycle. The second phase will have a 7.42 life cycle; the third phase will have a 7.39 life cycle; the fourth phase will have a 6.48 life cycle and, finally, the enclosure phase (layers) will be 5.92 years.

Figures 5 and 6 shows the proposed project timelines.

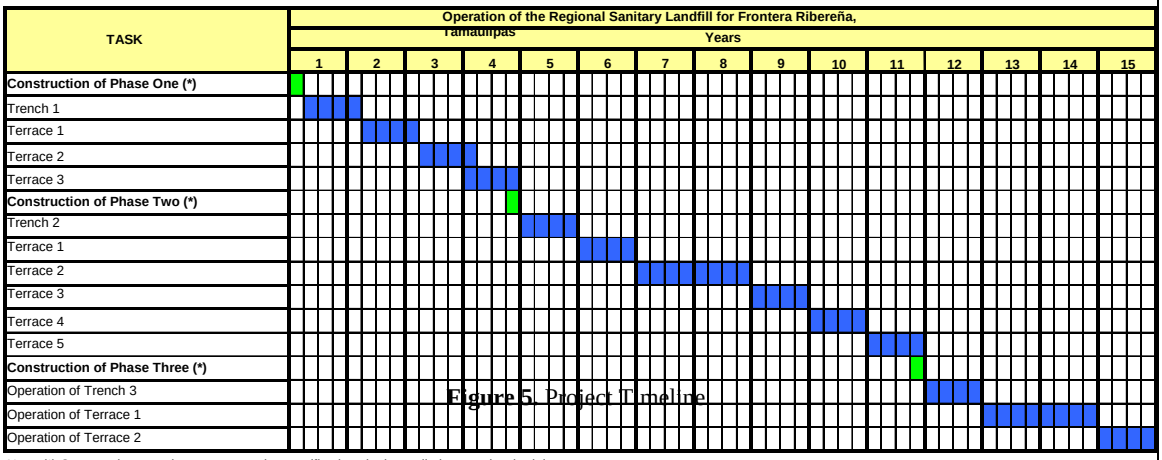

Figure 5. Project Timeline

Note: (*) Construction must be pursuant to the specifications in the preliminary task schedule

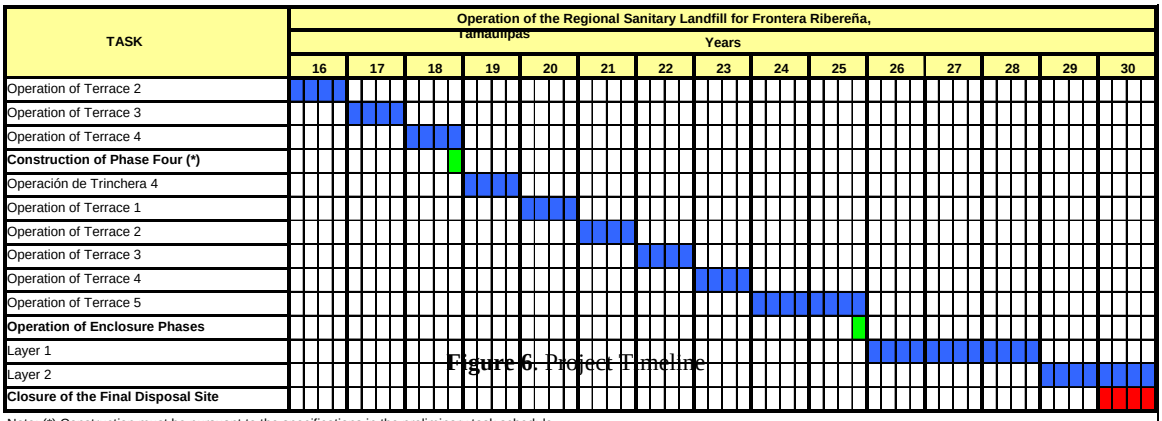

Figure 6. Project Timeline

Note: (*) Construction must be pursuant to the specifications in the preliminary task schedule.

3.b Management and Operations

Project Management

Resources:

"Servicios de Limpia de la Frontera Ribereña Tamaulipeca", an organization approved by the State Congress: will be responsible for the management, construction, and operation of the expansion of the sanitary landfill. This organization has the adequate level of resources and staff for these tasks.

Operation and Maintenance

Organization:

In order to carry out its operation and administrative activities, the regional landfill utility, *Servicios de Limpia de la Frontera Ribereña Tamaulipeca*, will consist of representatives from each of the five municipalities. Maintenance of the collection trucks will be the responsibility of the Department of Waste Collection of each municipality.

Operation Plan:

The operation of the waste collection system will continue to be a responsibility of the municipalities of the Frontera Ribereña, which have qualified personnel available to develop these tasks. The maintenance of waste collection trucks will be a responsibility of the respective Departments of Public Works.

Utility staff will be available to operate the sanitary landfill, as indicated in Table 9.

Table 3 Staff requirements for landfill operations

Personnel	Number	Shift
Resident	1	1
Analyst	2	1

	Collection vehicle inspector	1	1
	Secretary	1	1
	Cleaning crew	4	1
	Machinery operator	9	1
	Traffic flow attendant	1	1
	Guard	1	1
	Land Surveyor *	1	1
	Chainman *	1	1
	Night watch	1	1
	Janitor	1	1
	Helper	1	1
	Total	**25**	**1**

	The applicable operation plan for the sanitary landfill is included in the project's Final Design (BECC, 2007).
Permits, licenses, and other regulatory requirements:	The duties of the municipalities of Camargo, Diaz Ordaz, Mier, Miguel Aleman, and Nueva Ciudad Guerrero include the management, collection, and final disposal of urban solid waste. City governments have obtained the environmental authorizations required for the development of projects.
Reviewing agencies:	Technical review was provided by the Sustainable Development Agency of the State of Tamaulipas. Final Designs for the sanitary landfill and transfer stations have also been reviewed by the BECC and the North American Development Bank (NADB).

Pending Issues:

None.

Criterion Summary:

The project was reviewed by NADB and BECC.

4. Financial Feasibility

4.a Demonstrating Financial Feasibility

Financial Conditions

Information submitted: Municipalities' Financial Statements.

Financial analysis results: The Municipalities have enough revenues to operate the project, as well as to achieve and maintain the required reserve levels.

Project Costs, Financial Structure, and Other Plans for Capital Investment

Item:
Construction cost: $21.5 million pesos
Equipment cost $22.9 million pesos
Final cost: $44.4 million pesos

Financial structure:

Source	Type	Amount	%
Mexico	Grant	$24,380,000	55
NADB-SWEP	Grant	$20,000,000	45
Total:		$44,380,000	100

Primary Source of Income

Source of income: Municipalities' Federal Tax Revenues.

4.b Legal Considerations

Project management: The project will be managed by Servicios de Limpia de la Frontera Ribereña Tamaulipeca, who has sufficient capacity to manage and operate project.

Status of funding agreements: Grant contract to be signed once project is certified.

Pending Issues:

None.

Criterion Summary:

The project was evaluated and is considered financially feasible.

5. Public Participation

5.a Community Environmental Infrastructure Projects – Community-wide Impact

Steering Committee

Date of establishment: The steering committee was initially formed for the solid waste project on March 14, 2007, and later restructured on July 21, 2008, to continue the development of the public process. It was formed with civil society members and non-profit organizations of Miguel Alemán, Camargo, Mier, Guerrero and Gustavo Díaz Ordaz. The following people are part of the steering committee:

NAME	ORGANIZATION	MUNICIPALITY
Analí Ramírez Moya	Municipality	Miguel Alemán
Rubén Padilla Juárez	Municipality	Miguel Alemán
Esthela Martínez Ramírez	CANACO	Miguel Alemán
Ada María Cantú Gallegos	FUNDACION RESPETO ANIMAL A.C.	Miguel Alemán
Rodolfo Adrián Cerecero	Municipality	Cd. Mier
Gustavo Adolfo Garcìa Gonzàlez	Businessman	Cd. Mier
César Ramírez Rodríguez	Fuerza Mierense A. C.	Cd. Mier
Juan Roger García Ramón	Local Cattleman Association	Cd. Mier
Aleida García López	Municipality	Camargo
Pedro O. Rodrìguez Garza	Municipality	Camargo
Guillermo Olivarez Garcìa	Local Cattleman Association	Camargo
Oscar Guerrero	Industry	Camargo
Hernan Cortéz Longoria	Municipality	Díaz Ordaz
Carlos Guerrero Gonzalez	Workers Union	Díaz Ordaz
Benito Treviño Baez	Lions Club	Díaz Ordaz
Roberto Guerra Garza	COMAPA	Nva. Cd. Guerrero
Rolando Peña Hinojosa	Local Cattleman Association	Nva. Cd. Guerrero
Osvaldo Gonzàlez Garcìa	Local Cattleman Association	Nva. Cd. Guerrero
Eloy González Garza	CANACO	Nva. Cd. Guerrero
Carlos Olayo Delgado Riojas	SUTERM	Nva. Cd. Guerrero
Luis Gerardo Ramos Gómez	Lions Club	Nva. Cd. Guerrero

Date of approval of Public Participation Plan:	BECC approved the Public Participation Plan on August 2008.

Public Access to Project Information

Public access to project information:	All technical and environmental and limited financial project information was available at the city halls during business hours, and a phone line was available to provide project information to the public. A fact sheet was developed with technical, environmental and project costs which was distributed to the public and at the local organizational meetings.
Additional outreach activities:	Informational meetings were held with community residents in preparation for the BECC Public Meeting.
Public meeting:	The public meeting was held at the Miguel Aleman Presidencia Municipal at 5PM on the 13 of October 2008. Olga Juliana Elizondo Guerra, mayor of Nueva Ciudad Guerrero, José Guadalupe González Velázquez, mayor of Díaz Ordaz, Servando López Moreno, mayor of Miguel Alemán, José Ivan Macías Hinojosa, mayor of Mier, and José Correa Guerrero mayor of Camargo, as well as Carlos Acevedo of BECC and Carlos Cantú of NADB and Salvador Treviño Garza, head of the Environmental Protection and Sustainable Development Agency of the State of Tamaulipas were present at the meeting. The meeting was attended by 119 people who responded to exit surveys which show a 100% knowledge and approval for the project.

Final Public Participation Report

Final public participation report:	The Steering Committee and the applicant prepared the Final Public Participation Report to demonstrate that the proposed objectives were fully met to BECC's satisfaction.

Post-Certification Public Participation Activities

Post-certification activities:	The steering committee will meet every first and last Wednesday of each month to plan project update information activities, as well to develop an informational bulletin which will be delivered by individual public information departments of the municipalities, to keep the general public informed of the status of the project.

Pending Issues:

None.

Criterion Summary:

The project has support from local residents.

6. Sustainable Development

6.a Human and Institutional Capacity Building

Project operation and maintenance:

"Servicios de Limpia de la Frontera Ribereña Tamaulipeca" will be responsible for the operation and maintenance of the regional solid waste disposal site. This organization has adequate institutional capacity and staff to operate and maintain the landfill.

Human and institutional capacity building:

Actions that contribute to strengthen the institutional and human capacity of the Frontera Ribereña Government include:

- Improving the operation of the Sanitation or Primary Services Departments that operate under their respective Directorates of Municipal Public Works.
- Improving the agencies' waste collection infrastructure as needed by replacing collection vehicles.
- Building a regional sanitary landfill for the community.
- Closing existing dumpsites.

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 conforms to the Plans and Programs described below:

- Current 2008-2011 Municipal Development Plans for Camargo, Diaz Ordaz, Mier, Miguel Aleman, and Nueva Ciudad Guerrero, Tamaulipas propose actions to improve the waste collection system, including the purchase of garbage collection trucks.

- The project conforms to the Border 2012 Environmental Program by meeting Goal 3 (Reduce land contamination) and Objective 1 (Identify needs and develop an action plan targeted at improving both institutional and infrastructure capacity for waste management and pollution prevention as they pertain to hazardous and solid waste and toxic substances along the U.S.-Mexico border. Starting in 2005, the Action Plan will be implemented and completed by 2012). One of the guiding principles of this program is to reduce major public health hazards, as well as conserve and restore the natural environment.

Laws and regulations addressed by the project:	Law for the Ecological Equilibrium and Environmental Protection Environmental Law for the State of Tamaulipas.

6.c Natural Resource Conservation

The project reduces environmental degradation by improving the solid waste collection and disposal system, and by having a sanitary landfill compliant with Mexican Law NOM-083.

6.d Community Development

The project components will reduce the potential for detrimental conditions related to the inadequate management of solid waste that can facilitate spreading contagious diseases.

The construction of the new sanitary landfill promotes

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Project Documentation Available (in Spanish only):

- **Proyecto Ejecutivo para la Construcción de un Relleno Sanitario**, las Estaciones de transferencia y Manifestación de Impacto Ambiental, en la Frontera Ribereña, Tamaulipas." COCEF, 2007

- "RAP del Proyecto de Residuos Sólidos de Frontera Ribereña, Tamaulipas". COCEF, 2006

- Dictamen de Impacto Ambiental. Oficio No. MIA/MG/014/2007 de fecha 26 de Octubre de 2007 de la Dirección de Ecología del Estado de Tamaulipas

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- Informe Final de Participación Pública del Proyecto de Residuos Sólidos de la Frontera Ribereña de Tamaulipas, Noviembre de 2008.