HON. JOSE M. GONZALEZ ORTIZ
ALCALDE

ESTADO LIBRE ASOCIADO DE PUERTO RICO
GOBIERNO MUNICIPAL
APARTADO 1012
LUQUILLO, P.R. 00773

November 30, 2009

Mr. Carl-Axel P. Soderberg
Director
Environmental Protection Agency
Caribbean Division
Centro Europa Building, Suite 417
1492 Ponce de Leon Avenue
San Juan, Puerto Rico 00907-4127

Re: Notice of Intent for the NPDES Permit for Store Water Discharge

Dear Mr. Soderberg:

In accordance with 40CFR 122.21 (f) and the Storm Water Management Program the Municipality of Luquillo owns and operates a separate storm water system (MS-4) and therefore is required to obtain a permit as described in the Phase II of the National Pollutant Discharge Elimination (NPDES) Regulations.

Attached please find our Individual Notice fo Intent for the NPDES permit Application under the above referenced CFR and the Storm Water Management Program developed for our municipality.

With no oter regards,

Hon. José M. González Ortiz
Mayor

Scope

Under the stated provisions of the Clean Water Act (33 U.S.C. 1251 et.seq.), as amended, Federal Law prohibits discharges of pollutants in the storm water without a National Pollutant Discharge Elimination System (NPDES) Permit. According to the Storm Water Phase II final rule published in December of 1999, small municipal separate storm sewer systems (MS4) owners and operators must reduce pollutants in storm water to the maximum extent practicable (MEP) to protect its water quality. As an operator of a small MS4, the Municipality of Luquillo is required under the Phase II final rule to obtain NPDES permit coverage and submit a Storm Water Management Program.

The finality of this program will be to describe goals and measures that will be undertaken to assess the possible problem of pollution in the water bodies within the Municipality of Luquillo due to stormwater runoff through the municipal separate storm water system. The primordial purpose of the Program is to minimize the discharge of possible pollutants in the stormwater sewer discharges in order to protect the water quality of the citizens of the Municipality of Luquillo.

Name, mailing address and location of facility for application is submitted

Municipio of Luquillo
Oficina del Alcalde
P.O. Box 1012
Luquillo, Puerto Rico 00773

NPDES (MS4) Program Point of Contact

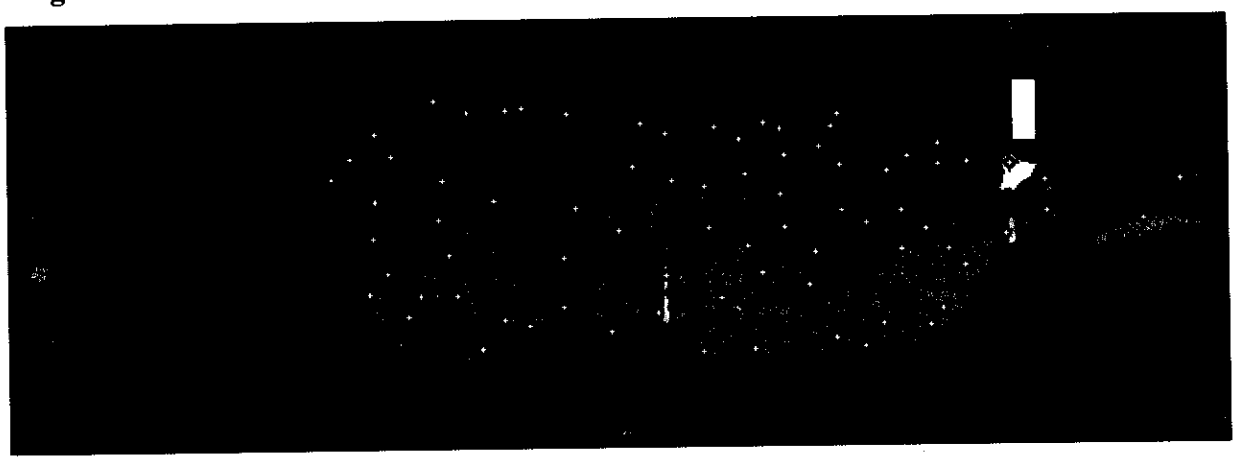
Municipio of Luquillo
Attn. Hon. José M. González Ortíz
Mayor
P.O. Box 1012
Luquillo, Puerto Rico 00773
Telephone (787)889-2525
Fax (787)889-6022

Standard Industrial Classification (SIC) Code for the Municipality of Luquillo is 9199

Introduction

The Municipality of Luquillo is located in the northeast part of the Island of Puerto Rico; founded in 1797 by Mr. Cristobal Guzman and today contains a 26 square mile territory. It is bounded to the north by the Atlantic Ocean; to the south with the Municipalities of Fajardo and Ceiba; to the east with the Municipality of Fajardo and the west with the Municipality of Rio Grande. **Figure 1 Location**.

Figure 1 Location



Originally the economy of the Municipality centered on agricultural activities. Once Puerto Rico's economy suffered major changes in the late 1980's the economy changed to light industries and since 2000 to date to State Government sponsored economic incentives have been added to its tourism to produce its total economic status.

Socio-Economic Data

Luquillo is composed of five (5) wards and the downtown (Pueblo) area. These are Juan Martin, Mameyes, Mata de Platano, Pitahaya, Sabana and Pueblo. **Figure 2 Wards**. Its population was estimated in the 2000 census at 19,817 with a density of 283.1 per sq. km. and a per capita income of $7,529.00 as stated in the 2000 Census. **Table 1 Population Distribution**.

Figure 2 Wards

TABLE 1 POPULATION DISTRIBUTION

WARD	POPULATION
JUAN MARTIN	966
PUEBLO	1353
MAMEYES	2383
MATA DE PLATANO	8318
SABANA	2292
PITAHAYA	4505

Source 2000 Census

Legal Authority

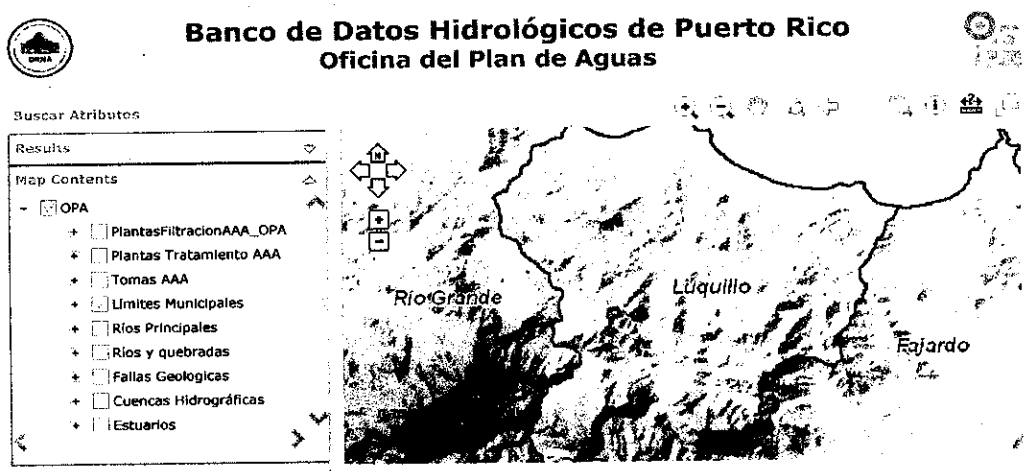
Act. No. 81 of August 1991, known as the Autonomous Municipality Act, empowers local governments to promulgate regional land use programs. The Municipality of Luquillo is currently working in its Territorial Plan. It is expected that this plan will be in use some time in the future. Luquillo's Public Works Department amongst other responsibilities, manages the construction and maintenance dredging and debris removal of open channels and certain water bodies within the urban area, though its involvement is limited due to the Department of Natural Resources (DRNA) jurisdiction over all water bodies in Puerto Rico. All of the work involved in this type of activity is coordinated with the DRNA and support is given when they perform the required work.

Natural Resources

Topography

This municipality belongs to the region of the "Llanos Costaneros del Norte" which comprise very fertile alluvial deposits. Although most of the territory he is relatively flat, its topography presents some smaller elevations pertaining to the mountain range of Luquillo in the South and the Southeastern boundaries, where the elevations reach around 500 meters (1.640 feet) above sea level. Near the coast, between the ward of Juan Martin de Luquillo and Quebrada Fajardo de Fajardo, are the hills at Barros and Zalduondo. These do not exceed the 227 meters (748 feet) above sea level.
Figure 3 Topography

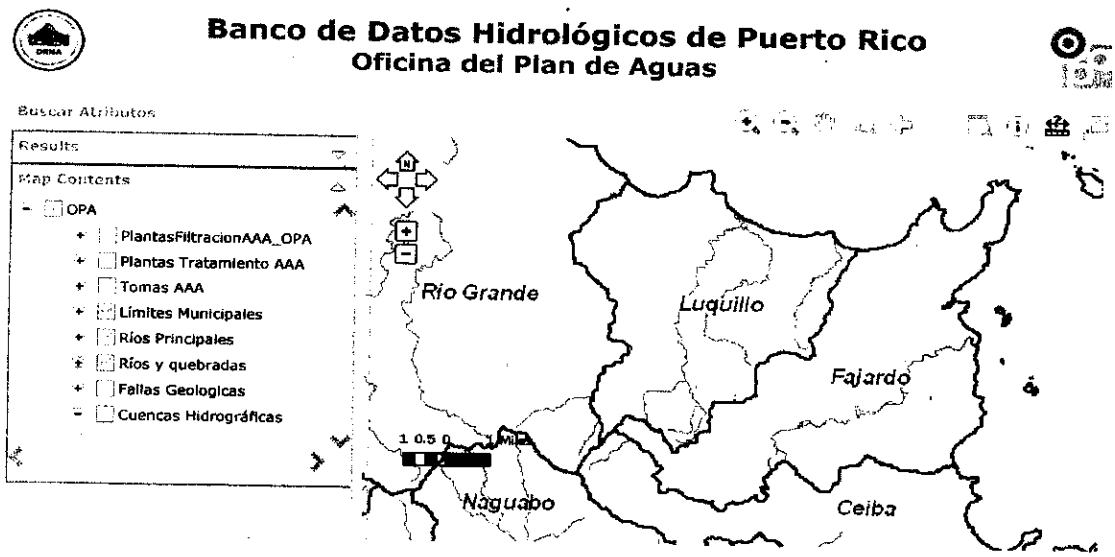
Figure 3 Topography
Source: Puerto Rico Department of Natural Resources
Hydrology



The National Forest of the Caribbean, known as "El Yunque" comprises of the mountainous zone of the Luquillo mountain zone. Its surface is of 11.330 hectares (28.000 acres) pertaining to the municipalities of Luquillo, Rio Grande, Naguabo, Fajardo and Ceiba.

Luquillo is watered by the rivers: a) **Rio Mameyes**, born in the Luquillo Forest Reserve at an elevation of 2,390 feet (728 mts) above sea level. Its length is approximately 9.7 miles (15.5 Km) from its source to its mouth in the Atlantic Ocean. It crosses the Municipalities of Luquillo and Rio Grande. b) **Rio Sabana**, which originates in the Sierra de Luquillo Forest Reserve in the Sabana Ward of Luquillo at an elevation of 1,711 feet (525 mts) above sea level. Its length is approximately 7.7 miles (12.3 Km) from its source to its mouth in the Atlantic Ocean, c) **Río Juan Martín,** born in the Municipality of Fajardo d) **Rio Cristal,** born in the Sierra del Yunque and e) **Rio Pitahayas,** also born in the Sierra del Yunque .

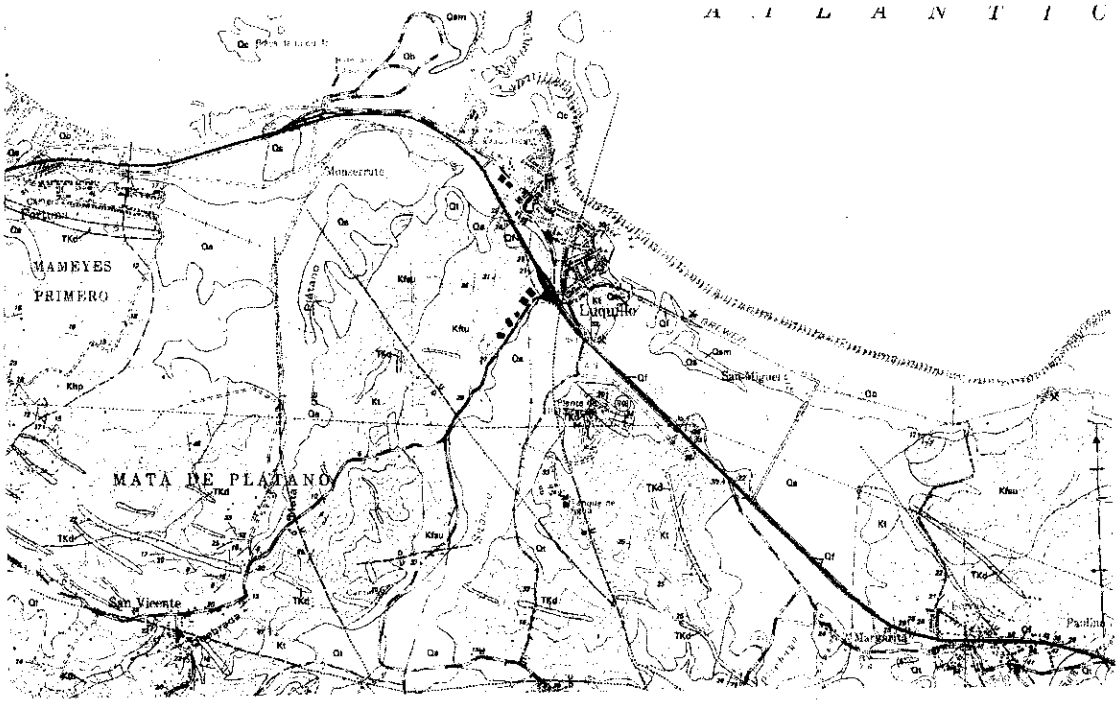
Figure 3 Rivers in Luquillo **Figure 3 Rivers in Luquillo**



Geology

According to the Map I-1153 published by the U.S. Geological Survey the geology within the Municipality of Luquillo is mainly composed by Qa Flood Plain Alluvium, Beach deposits, Khp breccia chiefly volcaniclastic breccia. **Figure 4 Geological Map I-1153.**

Figure 4 Geological Map I-1153



CONTOUR INTERVAL 10 METERS
DASHED LINES REPRESENT 5-METER CONTOURS
DATUM IS MEAN SEA LEVEL
DEPTH CURVES IN METERS—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 0.3 METER

DESCRIPTION OF MAP UNITS

Qf — ARTIFICIAL FILL (HOLOCENE)—Chiefly sand, clay, and coral fragments mostly on or near coast; elsewhere composed of earth and rock rubble. Thickness ranges from 2 to about 12 m

Qa — FLOODPLAIN ALLUVIUM (HOLOCENE)—Chiefly unconsolidated, poorly sorted to moderately well sorted, commonly thick-bedded sand, gravel, and clay. In narrow stream valleys in and near mountainous areas composed of boulders as large as 3 m across and subordinate sand and pebbles. Forms piedmont plains in the valley of the Río Fajardo near south edge of the Fajardo quadrangle. As much as 35 m thick

Qb — BEACH DEPOSITS (HOLOCENE)—Undivided, coarse- to fine-grained, moderately well to well-sorted sand, locally containing volcanic pebbles. Composed chiefly of calcium carbonate. South of Las Croabras composed of volcanic rock fragments ranging from boulders to sand in size, or calcium carbonate sand, or a mixture of these. Thickness ranges from 2 to 6 m

Qbr — BEACH ROCK (HOLOCENE)—Mainly calcium carbonate sand cemented by calcium carbonate. Sand grains are volcanic-rock fragments on west side of Cabo San Juan. Thickness ranges from 1 to 3 m

Qbv — BEACH DEPOSITS OF VOLCANIC-ROCK FRAGMENTS (HOLOCENE)—Moderately well to well-sorted, medium- and fine-grained sand composed chiefly of volcanic rock fragments; prominent calcium carbonate grains common. Thickness ranges from 1 to 3 m

Qbc — BEACH DEPOSITS OF CALCIUM CARBONATE SAND (HOLOCENE)—Coarse- to medium-grained, commonly well-sorted sand composed of fragments of coral, coralline algae, and shells of marine animals. On the east coast of Isla de Ratones, chiefly very coarse sand composed of coralline algae. Thickness ranges from 2 to 8 m

Qbo — BEACH DEPOSITS OF PEBBLES AND COBBLES (HOLOCENE)—Moderately well to poorly sorted pebble and cobble deposits and subordinate sand. Pebbles and cobbles composed chiefly of volcanic rocks and coral. Thickness ranges from 2 to 4 m

Qs — SWAMP DEPOSITS (HOLOCENE)—Chiefly clay and silt having a high content of organic material, commonly water saturated, containing some sand grains. Thickness ranges from 2 to about 5 m

Qsm — MANGROVE SWAMP DEPOSITS (HOLOCENE)—Chiefly sandy lime mud containing organic material. Includes silt and clay where adjacent to alluvium or weathered bedrock. Saturated with brackish or salt water. Characteristically with *Rhizophora* mangle. Thickness about 2 m

Qle — EPHEMERAL-LAGOON DEPOSITS (HOLOCENE)—Chiefly lime mud, windblown calcium carbonate sand, and crystalline salt. Occurs only on Cayo Icacos

Qc — REEFS (HOLOCENE)—Chiefly composed of coral and coralline algae, overlain by sand over shore; largely submerse at most tide stages.

Qt — TERRACE DEPOSITS (HOLOCENE AND PLEISTOCENE)—Poorly to moderately well sorted sand, gravel, and clay chiefly at margins of stream and river valleys at higher levels than reached by modern floods. Locally, coarse components of higher terraces have weathered to clay. Thickness ranges from 2 to about 10 m

Qe — EOLIANITE (HOLOCENE? AND PLEISTOCENE)—Thin- to thick-bedded, locally crossbedded, well-sorted medium- to coarse-grained coralline sandstone cemented by calcium carbonate. Occurs as longitudinal dunes on Cayo Icacos, Cayo Lobos, and other islands of La Cordillera. Probably more than 10 m thick

TKa — ANDESITE DIKES (TERTIARY AND CRETACEOUS)—Chiefly porphyritic rocks characterized by sparse to abundant plagioclase phenocrysts (3–6 mm long) in a finely crystalline groundmass, locally quartz or pyroxene phenocrysts predominant; locally pyrsent as site paralleling serpentinization. Thickness ranges from 10 to 150 m, mean about 80 m

TKd — HORNBLENDE-PYROXENE DIORITE DIKES AND S AND CRETACEOUS)—Finely to coarsely cry porphyritic hornblende and pyroxene diorite, locally coarsely crystalline diabase

TKqd — QUARTZ DIORITE (TERTIARY AND CRETACEOUS)— of quartz, hornblende, and feldspar commonly cont finely crystalline pyrite

Khl — HATO PUERCO FORMATION (SANTONIAN TO CEN Lavas—Finely crystalline andesitic(?) lavas, small and spa plagioclase and rare pyroxene. Present only at Cabez on Isla Palominos. Pillowed near the base in the Ca area, and platy in the upper part of the sequence outcrops in Isla Palominos. Thickness in excess of

Khp — Breccia—Chiefly massive volcaniclastic breccia; in the areas predominantly pumiceous breccia and su thick-bedded volcanic sandstone and calcareous mu de San Juan, composed of volcaniclastic breccia that massive tuff, tuffaceous breccia, and thin bedded tu On Isla Palominos, composed of coarse- to ve volcaniclastic breccia overlying thick-bedded to mas ranges from 360 to about 400 m

Kt — TABONUCO FORMATION (ALBIAN) Calcareous tuff unit—Calcareous thin- to thick-bec bluish-black tuffaceous siltstone and sandstone subordinate calcareous mudstone and breccia. Brecc of fragments of calcareous siltstone a few centir calcareous sandstone matrix. The basal part of th Sardinera–Las Croabas area, southeast of Luquillo, a is a very coarse-grained breccia composed of black across) of thin-bedded calcareous siltstone and sand volcanic sandstone and tuff. In Mameyes Prin weathered tuff and fine-grained volcaniclastic breccia near the base of the formation. The top of the formation lava flows. Thickness of the formation ranges from at

GEOLOGIC MA

Soils

The soil summary obtained from published reports from the U.S. Department of Agriculture, Soil Conservation Service, now the Natural Resources Conservation Service are as follows:

1. Coloso-Toa-Bajura association: Deep, moderately well drained to poorly drained nearly level soils on flood plains
2. Caguabo-Mucara-Naranjito association: Shallow and moderately deep, well drained, sloping to very steep soils on volacanic uplands
3. Swamps-Marshes association: Deep, very poorly drained soils on the coastal plains.

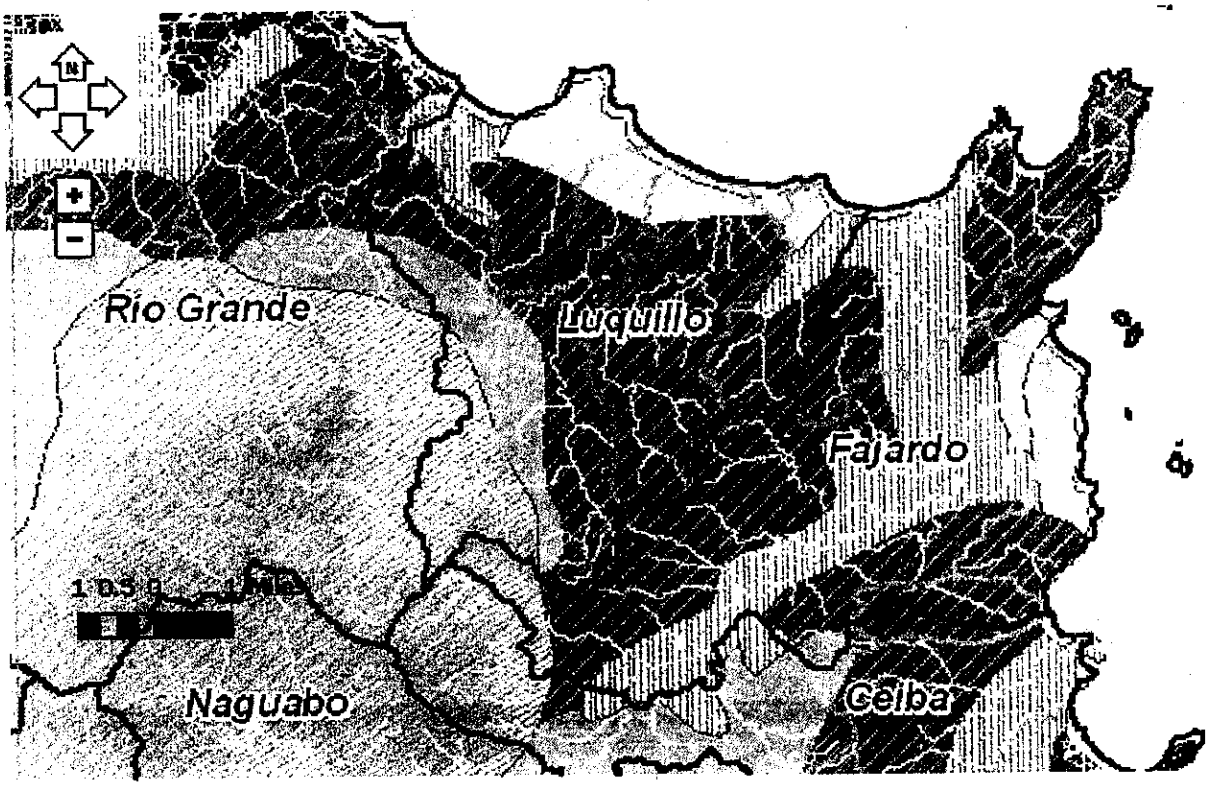
For the above stated information refer to Figure 5 Soil Survey of Humacao Area of Eastern Puerto Rico as published by the U.S. Department of Agriculture, Soil Conservation Service in January 1977.

Figure 5 Soil Survey of Humacao Area of Eastern Puerto Rico

Rivers and Water Shed

All three rivers mentioned above have affluents such as Quebrada Buenavista Carrion, Esc. Alejandrina Rios in Rd. 9990, and Las Pailas to the Sabana River; Las Paulinas, Quebrada Mata de Platano to the Pitahaya River. The Rio Sabana and the Rio Juan Martin are originated in Luquillo and respectively measure 12,6 km (7,6 miles) and 5,7 km (3,4 miles). The Mameyes is originated in Rio Grande, and Rio Cristal. The municipality, also, counts with the La Monserrate Beach as well as La Pared Beach. In addition, it conserves 20 hectares of "mangles" at its river basin. In the mouth of the Mameyes river, between Rio Grande and Luquillo, wetlands almost doubles the above mentioned amount. All stormwater outflow from the Municipality of Luquillo will be concentrated between its municipal boundaries into the Atlantic Ocean.

Figure 6 - Water Sheds and Rivers within the Municipality of Luquillo



Source DNRA Puerto Rico

Water Quality Concerns

Water Quality Standards (WQS) for surface waters in Puerto Rico have been established by the Puerto Rico Environmental Quality Board (PREQB) on the basis of designated usages, such as, drinking, irrigation, fishing, swimming or recreational, for which water quality shall be maintained and protected. The following table illustrates the current classification designated to the surface water around the urban areas of the Municipality of Luquillo:

Classification (PREQB), 1990	Designated Use	Water Bodies
SD	Surface waters intended for the use as raw source of the public water supply, for propagation and preservation of desirable aquatic species, and for primary (swimming) and secondary (boating and fishing) contact recreation, but precluding primary contact if the waters contain pathogenic organisms at a concentration greater than 2,000 colonies/100 mL of fecal coliforms.	Rio Mameyes and some of its tributaries. Rio Sabana Rio Pitahayas
SB	Coastal and estuarine waters intended for use in primary and secondary contact recreation and for the propagation and preservation of desirable species.	All three rivers at its ocean out falls
SC	Coastal waters intended for use where the human body may come in indirect contact with the water and for use in propagation and preservation of desirable species.	All three rivers at its ocean out falls

Data on the sanitary quality of surface waters within or with flow into the Municipality of Luquillo is obtained primarily from long term monitoring stations of the U.S. Geological Survey located at Rio Mameyes and Rio Sabana site numbers 50066000 and 50067000 respectively.

The Municipality of Luquillo Storm Water Sewer System (MS4) in the urban areas in general consists of catch basins, typically located within the right of way of municipal and state roads which normally discharge to the rivers within the municipalities boundaries and eventually into the Atlantic Ocean. In the rural areas the municipality's MS4 system typically consists of interconnected open channel

culverts and concrete or PVC pipes which run parallel or under municipal and state roads and usually discharge into the surface water bodies.

Some of the contributing sources of contamination are illegal discharges of sewage to the storm water drains, over flows of sewage mains due to malfunctioning sanitary sewers ejectors, clogged mains, rupture of sewer lines and leakage from sewer lines into the local storm water systems. Other pollutants that can reach the surface waters through the storm water sewers are petroleum hydrocarbons, metals, sediments and pollutants related to commercial and industrial activities.

It is important to note that the municipal separate storm water sewer system is interconnected with the storm water sewer system operated and maintained by the Puerto Rico Department of Transportation and Public Works and that of the Highway and Transportation Authority. Also, interconnected to the Municipal MS4 system are the discharges from NPDES (stormwater) permitted facilities.

The Municipal Public Works Department (MPWD) is responsible for the operation and maintenance of the stormwater sewer system and associated facilities within the Municipality of Luquillo. The MPWD offers services such as open channel cleaning and catch basin clean up, open trash dumping sites elimination, street sweeping, road side vegetation maintenance, septic tank maintenance and cleaning and other related services. The estimated square mileage served by the MS4 System is 26 sq. mi.

The Municipality of Luquillo has many regulatory and public responsibilities. One of these is the development of a Storm Water Management Plan (SWMP). The SWMP will be developed to meet the regulatory requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Rule and to assist the Municipality in maintaining and improving the Municipality drainage facilities which include pipelines, structures, basins, ditches, swales, ponds, underdrains and drainage wells, to ensure that they perform to design capacity and that all receiving bodies meet state and federal standards for water quality.

Proposed Storm Water Best Management Plan

The Municipality of Luquillo has many regulatory and public responsibilities. One of these is the development of a Storm Water Management Plan (SWMP). The SWMP will be developed to meet the regulatory requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Rule and to assist the Municipality in maintaining and improving the Municipality drainage

facilities which include pipelines, structures, basins, ditches, swales, ponds, under drains and drainage wells, to ensure that they perform to design capacity and that all receiving bodies meet state and federal standards for water quality. It will also be an important tool for use in the day-to-day operations and as a public reference document. Along with regulatory issues, this plan will address protection of property from flooding and erosion, identifies health and safety issues related to water resources, and will make recommendations for the preservation of environmental and aesthetic benefits to the community.

Through the use of field observations and input from Municipality staff, the SWMP will identify existing problems and potential future problems within the Municipality. A combination of regulatory requirements, public education, increased maintenance activities, and capital improvements will be recommended to solve identified problems. The major plan elements include the following:

- Development of a proposed storm water ordinance that, among other things, establishes minimum requirements for new development and redevelopment, prohibits illicit discharges into surface waters, and requires maintenance of privately owned storm water facilities.
- Development of public education opportunities to inform the community of water quality issues, and, specifically, the new ordinance and its requirements.
- Develop a Storm Water Assistance Program, to assist businesses and persons in their efforts to comply with NPDES storm water regulations and will educate citizens about storm water runoff and associated concerns.
- Analysis of localized flooding and water quality problems and solutions, and development of a prioritized list of recommended drainage system improvements.
- Development of a Maintenance and Operations Program.
- Development of a Public Education Program.
- Development of a Program to among other things, monitor illicit discharges into surface waters, storm water discharges associated with industrial activity and construction sites.

The proposed SWMP will focus initially on a system inventory and analysis of drainage and water quality issues followed by a 5 year capital improvement program, a facilities maintenance program, and a comprehensive storm and surface water code and policy. As envisioned, the SWMP will address the drainage network base map if required, for the principal surface water bodies (creeks and rivers), environmental and water quality issues, storm water facilities maintenance program and a comprehensive Storm Water Management Code and Policy.

Proposed Work Plan

Under the direction of the Municipal Public Works Department, a work plan will developed at the beginning of each year based on priorities. Semiannual meetings will held to update all partnership members on the status of the planned activities. A written annual report will be prepared and distributed at the end of each year. The anticipated activities are currently divided into six major tasks:

Task 1: Technology Assessment and Development.

Water supply and water quality issues are becoming more important in the Municipality as a result of population growth, new industry tourism. Choosing the right technological solutions to deal with water supply issues is key to the future of the region. The goal of this task is to ensure that the Municipality benefits from the best water management technologies available.

The objective of this task is to identify and/or develop solutions to water supply and water quality issues facing the Municipality using innovative or alternate technologies and practices in coordination with the Puerto Rico Acueducts and Sewer Authority(PRASA) and the Department of Natural Resources (DNR) which are the central government lead agencies in this matter.

Task 2: Water Resource Assessment and Analyses

Numerous studies have been performed and will be conducted on a variety of local and regional water issues, including watershed management, flooding, drought, water supply concerns, and environmental problems. Water quality and quantity data have been collected through the monitoring programs of the U.S. Army Corps of Engineers (USACE), the U.S. Geological Survey (USGS), the U.S. Department of Agriculture (USDA), and other federal and local government agencies. This task will provide the Municipality and its citizens with easy access to water-related information so that decisions can be based on the best data available.

The objective of Task 2 is to provide the Municipality and its citizens with access to data and information so that scientifically valid management decisions can be made on important issues that impact the water resources of the basin. The municipality of Luquillo will procure to insert themselfs in the information sharing program in an effort to better make said management decisions.

Task 3: Impacts on Water Resources

New and more stringent federal regulations regarding water quality are making it more difficult for the Municipality to meet water quality standards and for industry and municipalities to meet wastewater discharge limits. The Municipality, which continues to grow in terms of population and tourism, is concerned about meeting current and future water demands. For economic development to continue, the best possible information is required on the water resources available and potential future water needs so that scientifically valid management decisions can be made on important issues that impact the water resources of the basin.

The main objective of Task 3 is to assess the impacts from human activities on water resources in the watershed basins within the Municipality. This task also investigates opportunities for continued economic development while identifying new methods to reduce the environmental impacts from water consumption and wastewater loads and discharges. Again the Municipality of Luquillo will procure the data sharing from the concerned agencies in an effort to better inform its citizens as to the importance of this issue thru its educational effort.

Task 4: Water Resource Monitoring

Monitoring programs are the key to protecting the health and sustainable use of water resources. In recent years, more stringent environmental regulations have increased water quality monitoring by public and private entities. Federal and local agencies are actively developing new monitoring initiatives, as well as maintaining current programs. Although numerous monitoring efforts are under way, coordination of these efforts has been slow to develop. Coordinating monitoring efforts and results presents unique challenges because the methods and goals of the programs can vary significantly. To add to this monitoring effort the Municipality of Luquillo will establish a citizen based visual inspection program were residents will appraise the government of suspicious discharges into its water bodies.

The objectives of Task 4 are to track monitoring efforts of stakeholders and regulatory agencies in the Municipality, development of monitoring efforts, and perform monitoring in an effort to maintain the water quality within the municipality..

Task 5: Education and Information Dissemination

An integral component of this water management program for the Municipality of Luquillo is to provide a forum dedicated to identifying and discussing relevant water related issues. This forum is structured for a broad sharing of data, information, experience, technology, and perspectives on key water issues targeted by the community. Information dissemination and education fosters partnerships and raise the level of awareness of water resource issues. A proactive water management strategy is maintained through education and the open exchange of information and technical expertise.

The objectives of this task are to share data, information, experience, technology, and perspectives on key water issues targeted by the community and to keep the public abreast of new developments regarding the region's water resources.

Task 6: Development of a Watershed Management

This task will provide the basis for the integration of previous and current activities for Tasks 1 through 5 and the evaluation of how those activities affect the hydrology, ecology, and economy of the Municipality. The valuable information obtained from Tasks 1 through 5 will be used to create a framework for an overall watershed strategy for the Municipality by first developing a watershed management conceptual model. The framework will help to determine what information is missing and what other factors need to be considered in order to develop the conceptual model. A model that incorporates changing demographics, land uses, water supply and demands, environmental health and ecologically sensitive areas, and a host of other information will be an essential tool for shaping a water management strategy. The emphasis is to create a strategy, rather than a plan, with which to approach watershed issues. The distinction is important if the goal of making tangible progress in solving present and future basin issues is to be achieved.

The objective of this task is to provide the Municipality and other watershed management entities with information vital to making informed decisions needed to ensure a reliable and safe water supply well into the future.

DESCRIPTION OF MEASURABLE GOALS FOR THE BEST MANAGEMENT PRACTICES TO BE IMPLEMENTED BY THE MUNICIPALITY OF LUQUILLO

A. **Storm Water-Related Public Service Announcements** - Develop, produce, and air a once a month 30-second radio-based storm water-related public service announcement (PSA) segments to increase the public awareness of the storm water pollution issues within the area.
Measurable Goal(s) - The development of the storm water-related segments; and the number of segments radioed each year.
Scheduled dates: Start date will be January 2010 and will be a continuous activity
Person or entity in charge: Municipal Public Works Department - Mr. Carlos Casanova

B. **Educational Involvement/Partnerships/Outreach with the Schools** - Develop an educational program to reduce the storm water pollutants in cooperation with local businesses.
Measurable Goal(s) - A minimum of 50% of all grade school children will be educated every two years on storm water pollution issues.
Scheduled dates: Start date will be January 2010 and will be a continuous activity
Person or entity in charge: Municipal Federal Affairs Office and Municipal Finance Office Mrs. Marilyn Rodrígüez y Mrs. Annette Caraballo respectively.

C. **Educational Outreach to Community Homeowners** - The Municipality, in partnership with local commercial entities, and area university extension services, will plan, design, and develop a regional education and outreach program highlighting storm water runoff issues.
Measurable Goal(s) - Sponsor an annual seminar in cooperation with commercial entities; monitor the number of partnerships established with local businesses, suppliers, and retail stores; and monitor the number of property owners that attended training workshops.
Scheduled dates: Start date will be January 2010 and will be a continuous activity
Person or entity in charge: Municipal Federal Affairs Office - Mrs. Marilyn Rodrígüez

D. **Development and Distribution of Storm Water-Related Materials** - The Municipality will develop a community newsletter to convey storm water information throughout the area for public outreach activities that can be used for community education and outreach with respect to storm water pollution issues .
Measurable Goal(s) - The number of copies of the newsletter in circulation.
Scheduled dates: Start date will be January 2010 and will be a continuous activity
Person or entity in charge: Municipal Public Rent Office - Mrs. Annette Caraballo

E. **Distribution of Storm Water Pamphlets, Booklets, and Flyers** - Distribute storm water pamphlets, booklets, and flyers published by the U. S. Environmental Protection Agency (EPA) and Local government Agencies, intended to solicit interest in a specific storm water event or activity or to promote storm water education and positive behaviors.
Measurable Goal(s) - A list compiled of target audiences at specific wards and possible activities for each; number of materials created and distributed.
Scheduled date: Start date will be January 2010 and will be a continuous activity
Person or entity in charge: Municipal Public Rents Office - Mrs. Annette Caraballo

F. **Storm Drain Stenciling Program** - The Municipal Separate Storm Sewer Systems shall implement a community program to label storm drains.
Measurable Goal(s) - The number or percentage of storm drains stenciled; the number of stenciling volunteers.
Scheduled dates: Star Date of July 2010
Person or entity in charge: Municipal Emergency Management Office-Mr.Feliciano Montañez

G. **Annual Cleanup** - Promote an annual spring cleanup that will directly involve citizens in water pollution prevention and create awareness that most storm drains discharge untreated waters directly into the river and ocean.
Measurable Goal(s) - The number of stream cleanups; the number of cleanup groups or participants; the quantity of trash and recyclables that were removed by the cleanup; and the number of stream miles cleaned.
Scheduled dates: Work in progress and will be continuos work
Person or entity in charge: Municipal Public Works Department - Mr. Carlos Casanova and Puerto Rico Natural Resources Department

H. **Implement Regulations to Enforce Non-storm Water Discharges** - Prohibit non· storm water discharges into the storm sewer system through ordinances and resolutions, and develop and implement actions required to enforce these regulations.
Measurable Goal(s) - The number of ordinances and resolutions passed; the number of penalties enforced upon the participants of illegal dumps.
Scheduled dates: April 2010
Person or entity in charge: Municipal Secretary's Office -Mr. Angel Rosa

I. **Educational Outreach** - Educate public employees and commercial and industrial property owners on the hazards of improper waste disposal and ways to detect and eliminate illicit discharges.

Measurable Goal(s) - The number of flyers, posters, or other public education tools distributed; the number of illegal dumps reported by citizens; the number of locations determined to be prime areas for illegal dumping; the number of illegal dump cleanups completed; the number of illicit connections reported by business employees; the number of illicit connections found, repaired or replaced; the number of unwarranted connections reported, found repaired or replaced.

Scheduled dates: Start date January 2010 and will be continuos work.

Person or entity in charge: Municipal Human Resources Office and , Municipal Public Rents Office - Mrs. Annette Caraballo

J. **Program to Detect, Identify, and Eliminate Illicit Discharges** - Develop a program to detect and identify illicit discharges of non-storm water flows and when detected as significant contributors of pollutants, develop a plan to control and eliminate the contributors to the storm sewer system:

Measurable Goal(s) - Inventory conducted and sites prioritized for inspection; the number of illicit connections reported by business employees; the number of survey responses indicating a possible illicit connection; the number of illicit connections found..

Scheduled dates: Start Date January 2010 and will be continuous work.

Person or entity in charge: Emergency Management Office - Mr. Feliciano Montañez

K. **Program to Manage Recreational Sewage Discharges** - Through ordinances and resolutions, develop a program manage recreational sewage measures that seek to regulate wastewater generated from outdoor activities; and develop and implement the actions required to enforce these regulations.

Measurable Goal(s) - The number of citizen complaints made reporting illegal sewage dumping; the number of pump-out stations installed; the amount of waste collected at the pump-out stations; the number of new signs added to remind citizens of dumping policies; the number of penalties enforced upon the participants of illegal recreational sewage dumping; the number of flyers, posters, or other public education tools distributed or programs started to inform citizens about recreational sewage dumping; the number of new ordinances developed for enforcement of recreational sewage dumping.

Scheduled date: As required

Person or entity in charge: Municipal Public Rents Office - Mrs. Annette Caraballo

L. **Program to Detect and Eliminate Failing Septic Systems** - Develop a program to detect and eliminate failing septic systems.
Measurable Goal(s) - The number of routine maintenance and inspection activities; the number of scheduled pump-outs conducted and sites repaired.
Scheduled dates: Start Date January 2010 and will be continuous work
Person or entity in charge: Municipal Department of Public Works - Mr. Carlos Casanova

M. **Vehicle Maintenance Program** - Develop and implement a pollution prevention measure for an outreach and training program directed at businesses and municipal fleets involved in vehicle maintenance.
Measurable Goal(s) - The number of employees trained in preventing pollution from automobile maintenance activities; the number of spills reported; the number of educational materials distributed at garages, auto shops, and other automobile-related businesses.
Scheduled dates: Start Date January 2010 and will be continuous work
Person or entity in charge: Municipal Public Rents Office - Mrs. Annette Caraballo.

N. **Vehicle Washing Program** - Develop of a management measure that involves educating the general public, businesses, and municipal fleets on the water quality impacts of the outdoor washing of vehicles.
Measurable Goal(s) - The number of educational materials distributed to municipal employees; and the number of designated municipal vehicle washing areas.
Scheduled dates: Start Date January 2010 and will be continuous work
Person or entity in charge: Municipal Public Rents Office - Mrs. Annette Caraballo

O. **Pest Control Program** - Distribute published pest management procedures for limiting the impact of pesticides on water quality by educating residents and businesses on alternative uses, proper storage, and application techniques.
Measurable Goal(s) - The number of businesses where printed material was issued; the number of municipal employees trained in PCP.
Scheduled dates: Start Date January 2010 and will be continuous work
Person or entity in charge: Municipal Public Rents Office - Mrs. Annette Caraballo.

P. **Parking Lot and Street Cleaning Program** - Develop procedures for pavement cleaning practices to remove surface sediment, debris, and other pollutants that are a potential source of pollution, to minimize pollutant discharge to receiving waters.
Measurable Goal(s) - Number of roads and parking lots inventoried and prioritized for

cleaning; The number of scheduled road cleaning; the pounds of debris collected from street sweeping.
Scheduled dates: Work in progress and will be continuos work
Person or entity in charge: Municipal Public Works Department - Mr. Carlos Casanova

Q. **Storm Drain System Cleaning Program** - Develop procedures for the regular inspection and cleaning of storm drain systems to reduce the amount of pollutants, trash, and debris. This program shall be applied to material and waste handling areas, paved and vegetated areas, waterways, and new development projects. Based on inspection results, repair or replacement measures shall be determined for proper operation.
Measurable Goal(s) - Whether or not areas with high pollutant loadings were inventoried and prioritized for cleaning; the number of out falls inspected and cleaned annually (which will be at least 20% of all out falls maintained by the MS4 each year during the permit term).
Scheduled dates: Work in progress and will be continuos work
Person or entity in charge: Municipal Public Works Department - Mr. Carlos Casanova

R. **Spill Response and Prevention Program** - Develop procedures for spill response and prevention plans for sites where hazardous wastes are stored or used.
Measurable Goal(s) - Whether or not an inventory of municipal facilities at risk for spills was created; number of leak-detection devices installed at municipal facilities; number of preventative maintenance procedures performed on tanks, valves, pumps, pipes, and other equipment; whether or not a spill response plan was developed for municipal facilities; number of personnel trained in spill response; -number of regularly inspected high risk facilities; and number of educational materials distributed to municipal employees.
Scheduled dates: Work in progress and will be continuos work
Person or entity in charge: Office Of Emergency Management- Mr. Feliciano Montañez

S. **Used Oil Recycling Program** - Develop procedures to make recycling motor oil and oil filters more convenient in coordination with local agencies.
Measurable Goal(s) - The number of gallons of used oil collected from municipal operations; the number of recycling facilities that collect oil from municipal operations; the number of educational materials distributed to municipal employees.
Scheduled dates: Work in progress and will be continuos work
Person or entity in charge: Municipal Public Works Department - Mr. Carlos Casanova

Notice of Intent Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

José M. González Ortíz
Mayor, Municipality of Luquillo

30-11-09.
November 30, 2009