Municipality of Maunabo

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National Pollutant Discharge Elimination System Permit Application for Small Municipal Separate Storm Sewer System

Notice of Intent (NOI)

January, 2010

Submitted to:

U.S. Environmental Protection Agency - Region II

Caribbean Environmental Protection Division
Centro Europa Building, Suite 417
1492 Ponce de León Avenue
San Juan, Puerto Rico 00907-4127

TABLE OF CONTENTS

1.0 OVERVIEW OF THE NATIONAL POLLUTANT ELIMINATION SYSTEM (NPDES 1

1.1 Background 1

1.2 Demographic Data of the Maunabo Municipality 2

1.3 Notice of Intent (NOI) 3

1.3.1 Activities that Require a National Pollutant Discharge Elimination System (NPDES) Permit ... 3

1.3.2 Name, Location and Mailing Address of the Facility for which the Application is Submitted ... 3

1.3.3 Standard Industrial Classification (SIC) Code 3

1.3.4 Name, Title and Office Location of Responsible Official for the NPDES Permit Application .. 4

1.3.5 Name, Title and Office Location of Storm Water System Management Program Contacts: 4

1.3.6 Federal Permits or Construction Approvals Granted to the Municipality of Maunabo: 5

1.3.7 State Permits Or Construction Approvals Granted To The Municipality Of Maunabo: 6

1.3.8 Description of the Municipal Storm Water Sewer System (MS4). 6

1.3.9 Estimate of the Land Area Served by the MS4. 6

1.3.10 Description of the Proposed Storm Water Management Plan 6

1.3.11 Description of the Best Management Practices (BMP's) to be Included in the SWMP. 7

1.3.12 Measurable Goals for each BMP. 7

1.3.13 Certificacion of the NOI. 7

LIST OF ATTACHMENTS

ATTACHMENT NO.1 Topographic Map of the Maunabo Territory

ATTACHMENT NO.2 General Map of the Storm Sewer System

ATTACHMENT NO.3 Description of Best Management Practices (BMP's) and Measurable Goals for Implementation

1.0 OVERVIEW OF THE NATIONAL POLLUTANT ELIMINATION SYSTEM (NPDES)

1.1 Background

In year 1972, Congress amended the Federal Water Pollution Control Act, commonly referred as the Clean Water Act (CWA) to prohibit the discharge of any pollutant into waters of the United States from any point source unless the discharge is authorized by a National Pollutant Discharge Elimination System Permit (NPDES Permit). Initially, the NPDES Program focused on reducing pollutants present in discharges of industrial process wastewaters and municipal sewage. As pollution control measures have been implemented under the NPDES Program, it has become evident that diffuse, or non-point sources contribute significantly to the degradation of quality of the Waters of the United States. With this reality, the US Environmental Protection Agency (EPA) promulgated new rules under the NPDES storm water program addressed to operators of separate storm sewer systems.

The first set of rules was promulgated by the EPA in year 1990 to establish Phase I of the NPDES storm sewer program. Phase I requires operators of "medium" and "large" municipal separate storm water systems (MS4s), systems generally serving populations of 100,000 or greater, to implement a storm water management program as a means to control pollutants in the discharges from these systems.

The second set of rules was promulgated by the EPA in year 1999 to establish Phase II of the NPDES storm sewer program. The Phase II program extends coverage of the NPDES storm water program to certain "small" MS4s but takes a slightly different approach of how the storm water management program is developed and implemented. For purposes of the Phase II Rule, a "small" MS4 is any MS4 not already covered by the Phase I program as a "medium" or "large" MS4. The Phase II Rule automatically covers, on a nationwide basis, all small MS4s located in "urbanized areas" (UAs) as defined by the Bureau of the Census (unless waived by the NPDES permitting authority, and, on a case-by-case basis those small MS4s located outside of the UAs that the NPDES permitting authority designates.

1.2 Demographic Data of the Maunabo Municipality

The Municipality of Maunabo has a territorial extension of 38.25 square kilometers. The Municipality is located on the Southeast coast of Puerto Rico; bound on the north and east by the Yabucoa Municipality, on the south by the Caribbean Sea, and on the west by the Patillas Municipality. It has an ample seashore that extends from the drainage valley of the Maunabo River on the west to the Emajagua Creek on the east. The Municipality is composed of the urban zone and seven wards, namely: Matuyas Bajo, Lizas, Palo Seco, Calzada, Talante, Quebrada Arenas, y Emajagua. The urban zone is located on flat ground at elevation slightly over sea level while the topography of the remaining territory changes to steep slopes near the west boundary with the Patillas Municipality and the north and east boundaries with the Yabucoa Municipality, reaching elevations of over the 300 meters above sea level. A portion of the Puerto Rico Quadrangle issued by the US Geological Survey included in Attachment A depicts the territorial extension of the Municipality of Maunabo including the water bodies within the municipal boundaries, and other features like ground topography, shoreline, and urban zone.

The total population of the Maunabo Municipality is 12,741 inhabitants, distributed as follows, according to the 2000 Census.

- 2,075 inhabitants in the Urban Zone (or Pueblo); a density of 3,570 inhabitants per square mile and a land area of 0.58 square mile
- 1,152 inhabitants in Palo Seco Community, located next to State Road PR-759 about 1.5 miles west of the urban zone; a density of 2,552 inhabitants per square mile and a land area of 0.45 square mile
- 3,099 inhabitants in the Emajagua Community, located next to State Road PR-901 about 1/2 miles southeast of the urban zone; a density of 3,620 inhabitants per square mile and a land area of 0.86 square mile
- 6,415 inhabitants (the remaining of total population) in the rural area

In light of the above described population distribution and by definition under Rule II of the NPDES Program, both the Urban Zone (or Pueblo) and the two communities surrounding the Pueblo (Palo Seco Community and Emajagua Community) are to be regulated for the Municipality of Maunabo. This adds up to a total area of 1.89 square miles and a total population of 6,326 inhabitants served. However, as established by the EPA in January 9, 1998 for Puerto Rico, only the Pueblo or Urban Zone are to be regulated for the reason that the total population of the Municipality of Maunabo is less than 100,000 inhabitants.

The Municipality of Maunabo operates a municipal separate storm water sewer system that serves the urban zone and smaller urbanized areas located within the municipal territory. The municipal separate storm water sewer system is interconnected with the

storm sewer systems operated and maintained by the Puerto Rico Department of Transportation and Public Works (DTOP) and the Highway and Transportation Authority (HTA).

The storm water sewer system serving the Maunabo urban zone and other urbanized areas described above is regulated as a municipal small MS4 by Rule II of the NPDES program. As thus, the Municipality of Maunabo issues the Notice of Intent (NOI) as a first step to apply for a NPDES Permit as required by law.

1.3 Notice of Intent (NOI)

1.3.1 Activities that Require a National Pollutant Discharge Elimination System (NPDES) Permit

- Municipal separate storm water sewer system located in Maunabo, Puerto Rico (Lattitude: 18º 00' 24" N, Longitude: -65º 53' 58" W).

1.3.2 Name, Location and Mailing Address of the Facility for which the Application is Submitted

- Municipality of Maunabo

  Maunabo City Hall
  Calle Santiago Iglesias #1

  P.O. Box 8
  Maunabo, Puerto Rico 00707-0008

1.3.3 Standard Industrial Classification (SIC) Code

- The Standard Industrial Classification (SIC) Code for the Municipality of Maunabo is 9199.

1.3.4 Name, Title and Office Location of Responsible Official for the NPDES Permit Application

- Name: Hon. Jorge L. Márquez
  Title: Mayor
  Mailing Address: P.O. Box 8
  Maunabo, Puerto Rico 00707-0008
  Office Location: Maunabo City Hall
  Calle Santiago Iglesias #1
  Telephone: (787) 861-0825
  Fax: (787) 861-1165
  E-Mail address: jorge.marquez32@yahoo.com

1.3.5 Name, Title and Office Location of Storm Water System Management Program Contacts:

- Name: Mrs. Damaris Lebrón de Jesus
  Title: Municipal Secretary
  Mailing Address: P.O. Box 8
  Maunabo, Puerto Rico 00707-0008
  Office Location: Maunabo City Hall
  Calle Santiago Iglesias #1
  Telephone: (787) 861-0825
  Fax: (787) 861-1165
  E-Mail address: damaris_lebron@hotmail.com

- Name: Mr. Hector Morales
  Title: Transportation and Public Works Director
  Mailing Address: P.O. Box 8
  Maunabo, Puerto Rico 00707-0008
  Office Location: State Road 759 Boca Alzada Ward
  Maunabo, Puerto Rico 00707
  Telephone: (787) 861-3853
  Fax: (787) 861-0800
  E-Mail address: obraspublicas.maunabo@gmail.com

1.3.6 Federal Permits or Construction Approvals Granted to the Municipality of Maunabo:

1.3.6.1 Resource Conservation and Recovery Act (RECRA)

None

1.3.6.2 Underground Injection Control under the Safe Drinking Water Act

None

1.3.6.3 Dredge of Fill Permits under Section 404 of the Clean Water Act (CWA)

None

1.3.6.4 National Pollutant Discharge Elimination System under the Clean Water Act (CWA)

The Municipality of Maunabo is hereby submitting this NOI as part of the requirements of the NPDES MS4 General Permit No. 0PR40000.

1.3.6.5 Prevention of Significant Deterioration under the Clean Air Act (CAA)

None

1.3.6.6 Non attainment Program under the Clean Air Act

None

1.3.6.7 National Emission Standards for Hazardous Air Pollutants

None

1.3.6.8 Preconstruction Approval under the Clean Air Act

None

1.3.6.9 Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act

None

1.3.7 State Permits Or Construction Approvals Granted To The Municipality Of Maunabo:

1.3.7.1 Puerto Rico Environmental Quality Board (EQB)

Permit for collection and transportation of non-hazardous solid waste
Permit No. SR-49-0287 issued on September 28, 2007.

1.3.7.2 Puerto Rico Department of Natural and Environmental Resouces (DNER)

None

1.3.8 Description of the Municipal Storm Water Sewer System (MS4).

Although a detailed map of the storm water sewer system that serves the Urban Zone or Pueblo Area of the Municipality of Maunabo is not available at this time, a general map of the system has been assembled from field visits; it is shown on Attachment No. 2. As shown on Attachment No. 2, the Urban Zone storm sewer system is interconnected with the storm sewer systems of State Roads PR-750 and PR-901 that cross the Urban Zone. Rainfall runoff generated by most of the area occupied by the Urban Zone or Pueblo, 194.50 acres, is conveyed by box culverts and pipes into a man-made channel that runs along the western boundary and that discharges into the Maunabo River. The remaining area occupied by the Urban Zone or Pueblo, 56.63 acres, drains into the Arenas Creek through various storm sewer outfalls ranging in diameter from 18 to 30 inches. Both the Maunabo River and Arenas Creek discharge finally into the Caribbean Sea. As can be observed on Attachment No. 2, the Arenas Creed drains a rural area of 1,747.21 acres including part of the Urban Zone or Pueblo.

1.3.9 Estimate of the Land Area Served by the MS4.

The Maunabo MS4 serves the Urban Zone or Pueblo, with an approximate area of 1.50 square kilometers and a population of 2,075 inhabitants according to the 2,000 Census.

1.3.10 Description of the Proposed Storm Water Management Plan

The Maunabo Municipality plans to implement a Storm Water Management Plan (SWMP) with the principal goals as mentioned below:

- Reduce the discharge of pollutants to the "Maximum Extent Practicable" (MEP).
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

1.3.11 Description of the Best Management Practices (BMP's) to be Included in the SWMP.

BMP's to be implemented by the Municipality of Maunabo are grouped into the six (6) storm water minimum control measures described in 40 CFR 122.34 (b)(1) through (b)(6).

Refer to the matrix on Attachment No. 3

1.3.12 Measurable Goals for each BMP.

Measurable goals are defined for each BMP, including (a may be appropriate) the target years and months in which the action will be taken from the start of the SWMP, including interim milestones and frequency of the action.

Refer to the matrix on Attachment No. 3

1.3.13 Certificacion of the NOI.

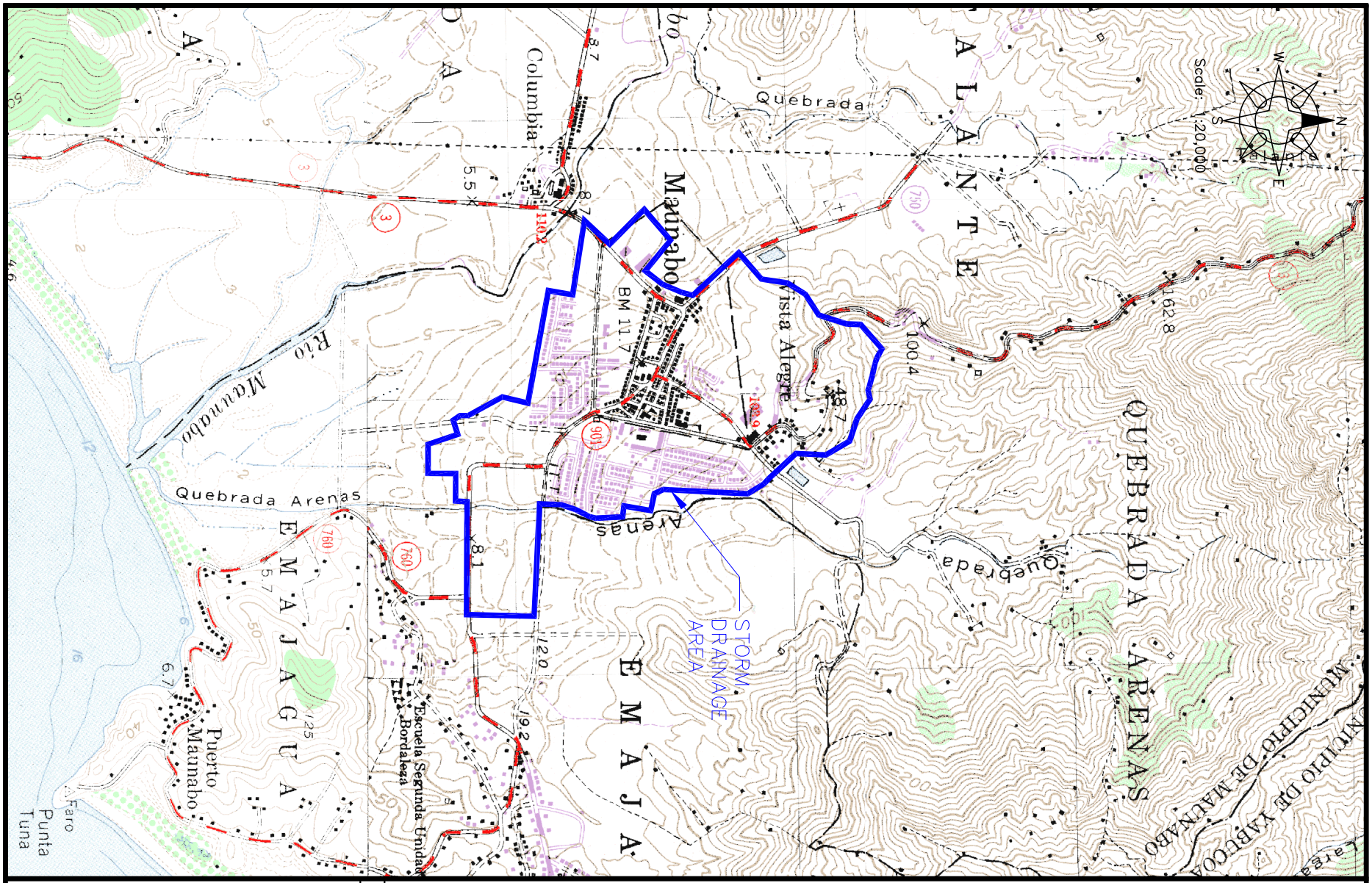
I certify under penalty of law that this document and all its attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information 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 fines and imprisonment for hiding kwon information in this NOI.

Signature

Hon. Jorge L. Márquez
Mayor

ATTACHMENT NO.1

TOPOGRAPHIC MAP OF THE MAUNABO TERRITORY



NPDES – Permit Application for Small Municipal Separate Storm Sewer System – Notice of Intent (NOI)

Attachment No. 1

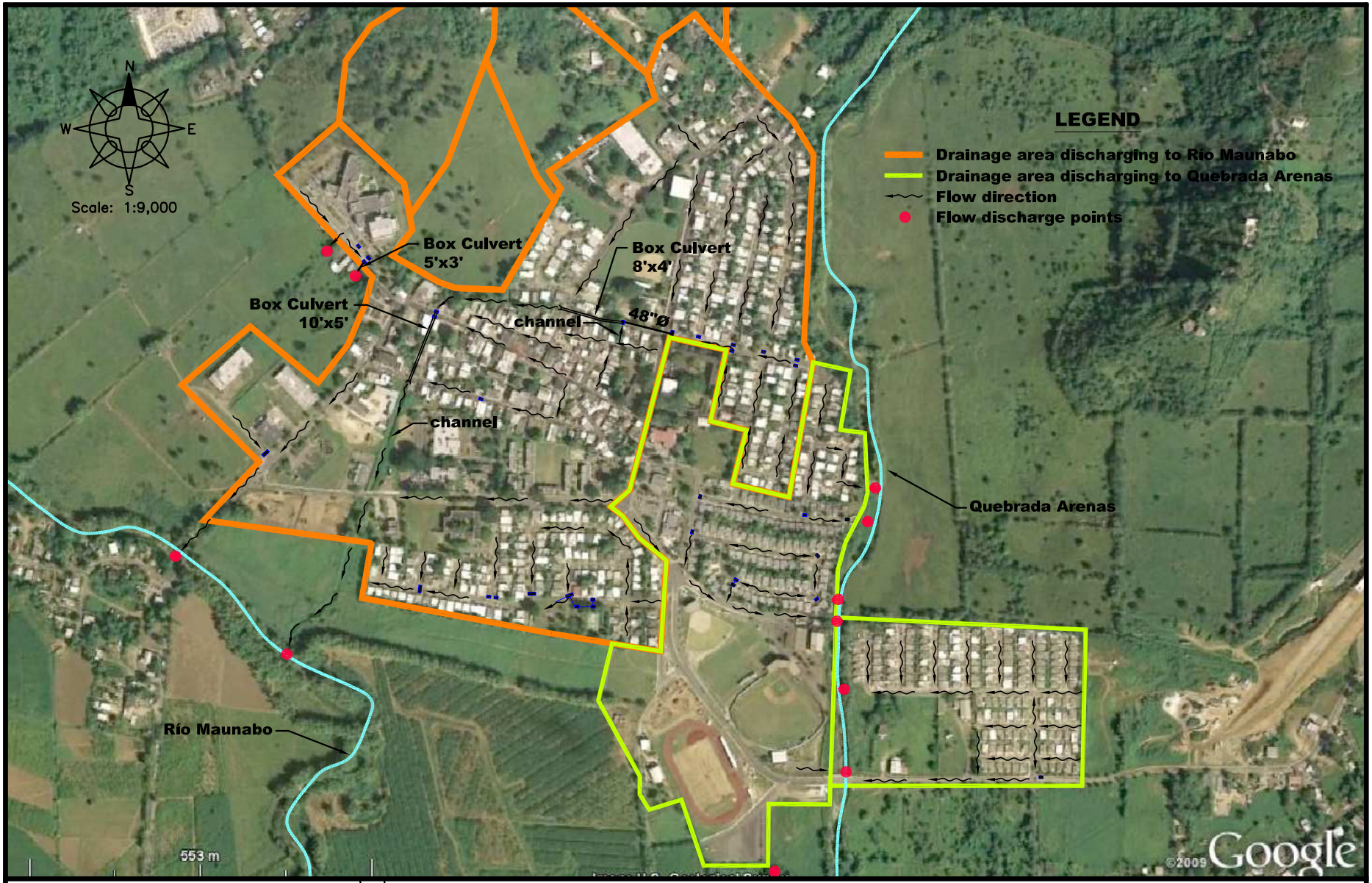
Topographic Map of the Maunabo Territory

CA Engineering, PSC

Scale: 1:20,000

ATTACHMENT NO.2

GENERAL MAP OF THE STORM SEWER SYSTEM



CA Engineering, PSC

Scale: 1:9,000

NPDES – Permit Application for Small Municipal Separate Storm Sewer System – Notice of Intent (NOI)

Attachment No. 2

General Map of the Storm Sewer System

ATTACHMENT NO.3

DESCRIPTION OF BEST MANAGEMENT PRACTICES (BMP'S)

AND MEASURABLE GOALS FOR IMPLEMENTATION

ATTACHMENT NO. 3
MUNICIPAL GOVERNMENT OF MAUNABO

BEST MANAGEMENT PRACTICES (BMP's) FOR EACH MINIMUM CONTROL MEASURE UNDER THE MS4 PERMIT

BMP DESCRIPTION	MEASURABLE GOAL	TARGET AUDIENCE	EXPECTED IMPLEMENTATION DATE
Control Measure No. 1: Public Education and Outreach			
Development of new and review/education of existing educational material related with storm water pollutioin control, including themes such as: toxic effects; simple water pollution control practices; environmental impacts, illegal discharges awareness.	Creation of pamphlets, flyers, ads, information brochures for general information purposes.	General public, residents, commercial establishments , municipal offices.	By Decemper 2010 and one annual publication and distribution from thereafter.
Conductance of conferences on the subject of storm water quality and the importance of water pollution prevention.	List of attendees from community groups, public and private schools, industry representatibes and other local components.	General public, residents, visitors and students.	Starting on September 2010, and bi-annulaly thereafter
Municipality sponsorship of 30-seconds duration public services announcements (PSA), on radio or television related to storm water pollution control.	Quantity of radio program and local newspapers co-sponsors, number of radio program callers, quantity of reading material distributed.	Local and adjacent towns radio listeners, local residents.	By June 2010, Program organization for one PSA. Each year thereafter, media time will be purchased to air the PSA developed in 2009
Creation of school educational material to be offered to public and private schools students of water pollution control importance.	All students educated on storm water pollution control subjects.	Elementary, intermediate and high school students.	Present school year : August 2010 Future school years: annually
Development of storm water-related posters for display in schools and municipal governemt localities.	Completion and placement of storm-related posters in schools and municipal	Students and general public.	December 2010.

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BEST MANAGEMENT PRACTICES (BMP's) FOR EACH MINIMUM CONTROL MEASURE UNDER THE MS4 PERMIT

BMP DESCRIPTION	MEASURABLE GOAL	TARGET AUDIENCE	EXPECTED IMPLEMENTATION DATE
Control Measure No. 2: Public Participation			
Development of an on-going program of catch basin stenciling until all catch basins in the MS4 have been stenciled. The stenciling program will consist on volunteers applying stenciled messages to storm drains advising people not to dump substances other than rainwater because catch basins drain directly into water courses.	Institution of a voluntary, on-going catch basin stenciling program with the target of stenciling all catch basins by the end of the permi effec-tiveness period.	Community groups and residents, local civic groups.	30% by Decemper 2010 70% by June 2011 100% by December 2011
Conductance of on-going series of public forums/ discussions about storm water management and pollution control requirements.	The municipality will conduct at least one public forum dircted at development of ordinances for construction and post-construction storm water pollution controls.	Local contractors, General Contractors Association, Homeowners Contractors Association, local and state Chamber of Commerce, Industries Association, College of Engineers and Surveyors of Puerto Rico, College of Architects and Landscape Architects of Puerto Rico, state and local governemt representatives, farmers and cattle growers.	By June 2010
	The municipality will conduct public work sessions and public hearings on proposed storm water pollution control ordinances, public construction and post-construction sites runoff control.		By December 2010
	Proposed creation/amendments to municipal ordinances to be presented at public meetings, and at least one public hearing on the proposed changes.		By March 2011
	Final ordinances on storm water pollution control		By June 2011
Development of a stencil maintenance program where the municipality staff is instructed to inspect catch basin stenciling and re-do the stenciling if needed, every time they clean a catch basin that is already stenciled.	Implementation of a municipal stenciling mainte-nance program in conjuncion with routine catch basin cleaning.	Municipality employees.	By March 2011
Attempt to establish an "adopt-a-stream" program where light infrastructure debris will be removed and maintenance needs will be identified.	Development of an on-going, voluntary, "adopt-a-stream" program. "Stream walks" will be conduc-ted on identified stretches of streams. Needed maintenance will be scheduled as soon as praticable.	Local residents, community groups, schools, municipality public works department.	One "stream walk" by December 2010 and one "stream walk" annualy thereafter.

ATTACHMENT NO. 3
MUNICIPAL GOVERNMENT OF MAUNABO

BEST MANAGEMENT PRACTICES (BMP's) FOR EACH MINIMUM CONTROL MEASURE UNDER THE MS4 PERMIT

BMP DESCRIPTION	MEASURABLE GOAL	TARGET AUDIENCE	EXPECTED IMPLEMENTATION DATE
Control Measure No. 3: Illicit Discharges Detection/Elimination			
Creation of a Detailed Storm Drain System Map	Prepare a storm water infrastructure inventory for the urban area or pueblo. Account for all components of the Municipality's Storm Water System (SWS) including structural pollution control devices, outfalls locations, and identification of receiving water bodies.	MS4 municipal managers, developers, contractors, and emergency response personnel.	15% by Decemper 2010 60% by December 2011 100% by October 2011
Identify illicit connections by means of a survey of the SWS and the outfalls.	Account for all existing points of illicit discharges into the SWS. Account for the elimination of all known points of illicit discharges into the SWS.	MS4 municipal managers.	15% by Decemper 2010 60% by December 2011 100% by October 2011
Create an ordinance aimed at the establishment of a Storm Water System Permit Compliance and Enforcement Program	Development and implementation of a Storm Water System Permit Compliance and Enforcement Program.	Regulated Community	First Draft-December 2010 Public Hearings-January 2011 Public Hearings-April 2011 Final Version-October 2011
Create an ordinance that prohibits disposal of waste in a non-permitted area or into a storm drain system.	Pollutants reduction as evidenced by water quality sampling results.	Community residents, commercial sector representatives, and local industries.	First Draft-October 2010 Public Hearings-November 2010 Public Hearings-May 2011 Final Version-August 2011
Create an illicit discharge and illegal dumping hotline.	Reduction of illegal dumping and/or illicit discharge occurences.	Community residents, commercial sector representatives, and local industries.	By December 2010.
Develop a Storm Wate System inspection program.	General assessment of the Storm Water System conditions.	MS4 municipal managers.	15% by Decemper 2010 60% by December 2011 100% by October 2011

ATTACHMENT NO. 3
MUNICIPAL GOVERNMENT OF MAUNABO

BEST MANAGEMENT PRACTICES (BMP's) FOR EACH MINIMUM CONTROL MEASURE UNDER THE MS4 PERMIT

BMP DESCRIPTION	MEASURABLE GOAL	TARGET AUDIENCE	EXPECTED IMPLEMENTATION DATE
Control Measure No. 4: Construction Site Storm Water Ruoff Control			
Request from Contractors to submit a certified plan for the control of storm water before start of construction of any project.	Municipal endorsement to projects conditional to submittal of Storm Water Runoff Control Plan	MS4 municipal managers and contractors.	By June 2011.
Request from contractors to certify that all Storm Water System connections were performed in accordance with approved plans and specifications.	Minimize the non-approved connections to the Storm Water System during contructions.	MS4 municipal managers and the construc-tion business community.	By August 2010, complete a draft version of the general conditions to be included on each construction contract. by December 2010, complete the final version of the general conditions.
Request from developers, contractors and designers on all construction contracts, to submitt "as-built" drawings showing all new connections to storm water system, conveyances and discharge points for developments and commercial activities to the Municipal Government.	Updates to the original Storm Drain System Map.	MS4 municipal managers and municipality legal representatives.	By June 2011, complete a draft version of the general conditions to be included on each construction contract. By October 2011, complete a final version of the general conditions.

ATTACHMENT NO. 3
MUNICIPAL GOVERNMENT OF MAUNABO

BEST MANAGEMENT PRACTICES (BMP's) FOR EACH MINIMUM CONTROL MEASURE UNDER THE MS4 PERMIT

BMP DESCRIPTION	MEASURABLE GOAL	TARGET AUDIENCE	EXPECTED IMPLEMENTATION DATE
Control Measure No. 5: Post-Construction Storm Water Management in New Developments and Re-developments			
Develop and implement a program for inspection and preventive maintenance of structural storm water runoff control.	Reduction of MS4 permit non-compliance incidences.	MS4 municipal managers.	15% by December 2010. 60% by December 2011. 100% by Occtober 2012.
Protect municipal properties within upland watershed susceptible to erosion problems.	Implement erosion control measures such as seeding, mulching, protection of natural features, and urban forestry.	MS4 municipal magagers and municiplal public works personnel.	By December 2010
Create an ordinance aimed at the establishment of a permit system for connection to the Municipality's Storm Water Sewer System	Development and implementation of a permit system for connection to the Municipality's Storm Water Sewer System.	Regulated Community	By December 2010-First Draft By January 2011-Public Hearings By Apri 2011-Public Hearings By October 2011-Final Version

ATTACHMENT NO. 3
MUNICIPAL GOVERNMENT OF MAUNABO

BEST MANAGEMENT PRACTICES (BMP's) FOR EACH MINIMUM CONTROL MEASURE UNDER THE MS4 PERMIT

BMP DESCRIPTION	MEASURABLE GOAL	TARGET AUDIENCE	EXPECTED IMPLEMENTATION DATE
Control Measure No. 6: Pollution Prevention/Good Housekeeping for Municipal Operations			
Certification of No Exposure (CNE) for its vehicle maintenance facilities, or from any private vehicle maintenance company dedicated to provide such services to the municipality.	The municipality will obtain a CNE from an inspection conducted by a certified environmental professional to the public or private vehicle maintenance provider. The minicipality will maintain this certification throughout the permit period.	Municipal vehicle maintenance operators.	By December 2010.
Implement recommended improvements resulting from the most recent Municipal Compliance inspection, and will maintain compliance throughout the permit period.	The municipality will implement recommended improvements resulting from the recent Municipal Compliance inspection.	Municipal vehicle maintenance operators.	By December 2010, and each year thereafter.
Development of an on-going training program for Municipal Plublic Works personnel related to storm water management and handling of hazardous materials; obtain training certificatios on storm water management from private vehicle maintenance program.	The municipality will obtain training for the Public Works staff, and other staff as appropriate, in recognizing signs of storm water management/ erosion control failures, as described in Minimum Control Measures No. 4 and No. 5.	Municipal vehicle maintenance operators.	By December 2010, and refreshing sessions each year thereafter.