



MAUNABO  
1799



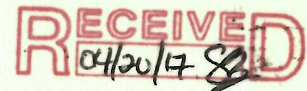
Estado Libre Asociado de Puerto Rico  
**MUNICIPIO DE MAUNABO**



CERTIFIED MAIL – RETURN RECEIPT REQUESTED 7015-1600-0000-8127-6305

April 13, 2017

Ms. Yolianne Maclay  
Clean Water Act Team  
Multimedia Permits and Compliance Branch  
Caribbean Environmental Protection Division  
U.S. Environmental Protection Agency, Region 2  
City View Plaza II, Suite 7000  
#48 165 RD. KM 1.2  
Guaynabo, Puerto Rico 00968-8069



**Re: Notice of Intent Response Maunabo Municipality  
Small MS-4 General Permit NPDES Permit Tracking Number PRR040067**

Dear Ms. Maclay:

In March 13, 2017 Maunabo Municipality (Municipality) received a letter from U.S. Environmental Protection Agency (EPA) requesting to submit a notice of intent (NOI) regarding stormwater discharges from the municipal separate storm sewer systems (MS-4s) under the 2016 Small MS-4 General Permit.

In response to this requirement, attached a completed NOI form for MS-4 in Puerto Rico. This document includes the estimated percent of outfall completed and the estimated date of completion. The Municipality also provided a measurable goals and best management practice adopted, in order to comply with the Stormwater Management Program.

"I certify under penalty of law that this document and all attachments were prepared under my direction of 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."


If you have any questions of the subject above, do not hesitate in contact us at (787) 861-0825, at your convenience.

Sincerely,

  
\_\_\_\_\_  
Hon. Jorge L. Márquez Pérez  
Mayor

**Part J. Application Certification and Signature**

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.

Signature of Mayor/Elected Official: 

Print Name of Mayor/Elected Official: Hon. Jorge L. Marquez

Title: Mayor - Municipality of Maunabo Date: 12/05/12

## Appendix A





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Caribbean Ecological Services Field Office  
Post Office Box 491  
Boqueron, PR 00622-0491  
Phone: (787) 851-7297 Fax: (787) 851-7440  
<http://www.fws.gov/caribbean/es>

In Reply Refer To:

April 04, 2017

Consultation Code: 04EC1000-2017-SLI-0121

Event Code: 04EC1000-2017-E-00095

Project Name: Maunabo NOI

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The purpose of the Endangered Species Act (Act) is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect those species and/or their designated critical habitat.

Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action". The enclosed species list provides information to assist with the consultation process with the U.S. Fish and Wildlife Service (Service) under section 7 of the Act. However, the enclosed species list **does not complete the required consultation process**. The species list identifies threatened, endangered, proposed and candidate species, as well as proposed and designated critical habitats, that may occur within the boundary of your proposed project and/or may be affected by your proposed project.

A discussion between the Federal agency and the Service should include what types of listed species may occur in the proposed action area, and what effect the proposed action may have on those species. This process initiates informal consultation.

When a Federal agency, after discussions with the Service, determines that the proposed action is not likely to adversely affect any listed species, or adversely modify any designated critical habitat, and the Service concurs, the informal consultation is complete and the proposed project moves ahead. If the proposed action is suspected to affect a listed species or modify designated critical habitat, the Federal agency may then prepare a Biological Assessment (BA) to assist in its determination of the project's effects on species and their habitat.



However, a BA is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a BA where the agency provides the Service with an evaluation on the likely effects of the action to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a BA are described at 50 CFR 402.12.

If a Federal agency determines, based on its BA or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to further consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation process.

More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;  
<http://www.towerkill.com>; and  
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project

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planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

**For more information:**

**U.S. Fish and Wildlife Service**  
**Caribbean Ecological Services Field Office**  
**Road 301, Km. 5.1 / Bo. Corozo**  
**Boquern, PR 00622**  
**Telephone: (787) 851-7297**  
**Fax: (787) 851-7440**  
**Email: [caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov)**  
**<http://www.fws.gov/caribbean/es>**

**Send all documents to:**

**U.S. Fish and Wildlife Service**  
**P.O. Box 491**  
**Boquern, Puerto Rico 00622**

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Caribbean Ecological Services Field Office**

Post Office Box 491

Boqueron, PR 00622-0491

(787) 851-7297

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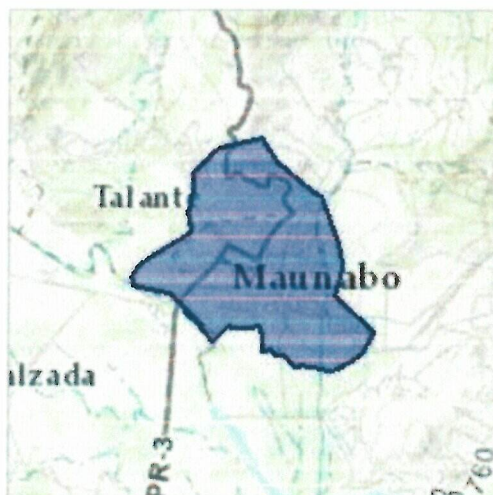
## Project Summary

Consultation Code: 04EC1000-2017-SLI-0121  
Event Code: 04EC1000-2017-E-00095  
Project Name: Maunabo NOI  
Project Type: \*\* OTHER \*\*  
Project Description: Final 2016 NPDES Small MS4 General Permit

### Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/18.00779425950006N65.89994804845496W>



Counties: Maunabo, PR

## Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

## Mammals

NAME	STATUS
<b>West Indian Manatee (<i>Trichechus manatus</i>)</b> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/4469">https://ecos.fws.gov/ecp/species/4469</a>	Endangered

## Reptiles

NAME	STATUS
<b>Hawksbill Sea Turtle (<i>Eretmochelys imbricata</i>)</b> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3656">https://ecos.fws.gov/ecp/species/3656</a>	Endangered
<b>Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)</b> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1493">https://ecos.fws.gov/ecp/species/1493</a>	Endangered
<b>Puerto Rican Boa (<i>Epicrates inornatus</i>)</b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6628">https://ecos.fws.gov/ecp/species/6628</a>	Endangered

## Amphibians

NAME	STATUS
<b>Guajon (<i>Eleutherodactylus cooki</i>)</b> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6963">https://ecos.fws.gov/ecp/species/6963</a>	Threatened

## Critical habitats

There are no critical habitats within your project area.

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## **USFWS National Wildlife Refuges And Fish Hatcheries**

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuges or fish hatcheries within your project area.

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## Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#). To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Bridled Quail-dove ( <i>Geotrygon mystacea</i> )	On Land: Year-round
Caribbean Coot ( <i>Fulica caribaea</i> ) <a href="https://ecos.fws.gov/ecp/species/2973">https://ecos.fws.gov/ecp/species/2973</a>	On Land: Year-round
Least Bittern ( <i>Ixobrychus exilis</i> ) <a href="https://ecos.fws.gov/ecp/species/6175">https://ecos.fws.gov/ecp/species/6175</a>	On Land: Year-round
Loggerhead Kingbird ( <i>Tyrannus caudifasciatus</i> )	On Land: Year-round
Swainson's Warbler ( <i>Limnothlypis swainsonii</i> )	On Land: Wintering
Worm Eating Warbler ( <i>Helmitheros vermivorum</i> )	On Land: Wintering
Smooth-billed Ani ( <i>Crotophaga ani</i> ) <a href="https://ecos.fws.gov/ecp/species/1754">https://ecos.fws.gov/ecp/species/1754</a>	On Land: Year-round

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Antillean Mango ( <i>Anthracothorax dominicus</i> )	On Land: Year-round
Solitary Sandpiper ( <i>Tringa solitaria</i> )	On Land: Wintering
Limpkin ( <i>Aramus guarauna</i> )	On Land: Year-round
Mangrove Cuckoo ( <i>Coccyzus minor</i> )	On Land: Year-round
Prairie Warbler ( <i>Dendroica discolor</i> )	On Land: Wintering
Semipalmated Sandpiper ( <i>Calidris pusilla</i> )	On Land: Wintering
White-crowned Pigeon ( <i>Patagioenas leucocephala</i> ) <a href="https://ecos.fws.gov/ecp/species/4047">https://ecos.fws.gov/ecp/species/4047</a>	On Land: Year-round
Wilson's Plover ( <i>Charadrius wilsonia</i> )	On Land: Year-round
Yellow-breasted Crake ( <i>Porzana flaviventer</i> )	On Land: Year-round
White-cheeked Pintail ( <i>Anas bahamensis</i> ) <a href="https://ecos.fws.gov/ecp/species/6589">https://ecos.fws.gov/ecp/species/6589</a>	On Land: Year-round
Masked Duck ( <i>Nomonyx dominicus</i> )	On Land: Year-round
Ruddy Duck ( <i>Oxyura jamaicensis jamaicensis</i> ) <a href="https://ecos.fws.gov/ecp/species/7385">https://ecos.fws.gov/ecp/species/7385</a>	On Land: Year-round
Puerto Rican Oriole ( <i>Icterus dominicensis</i> )	On Land: Year-round
Black Swift ( <i>Cypseloides niger</i> ) <a href="https://ecos.fws.gov/ecp/species/8878">https://ecos.fws.gov/ecp/species/8878</a>	On Land: Breeding
Short-eared Owl ( <i>Asio flammeus</i> ) <a href="https://ecos.fws.gov/ecp/species/9295">https://ecos.fws.gov/ecp/species/9295</a>	On Land: Year-round
Least Tern ( <i>Sterna antillarum</i> )	On Land: Breeding

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
  - Conservation measures for birds  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
  - Year-round bird occurrence data  
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>
-

## Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

### FRESHWATER EMERGENT WETLAND

- PEMIC

### FRESHWATER FORESTED/SHRUB WETLAND

- PFO3A
-



## Appendix B

#### **Part D. Map/Boundaries Narrative**

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 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 Appendix C 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 12,225 inhabitants, distributed as follows, according to the 2010 Census.

- 1,668 inhabitants in the Urban Zone (or Pueblo)
- 1,270 inhabitants in Palo Seco Community, located next to State Road PR-759 about 1.5 miles west of the urban zone
- 4,538 inhabitants in the Emajagua Community, located next to State Road PR-901 about 1/2 miles southeast of the urban zone
- 4,749 inhabitants (the remaining of total population) in the rural area

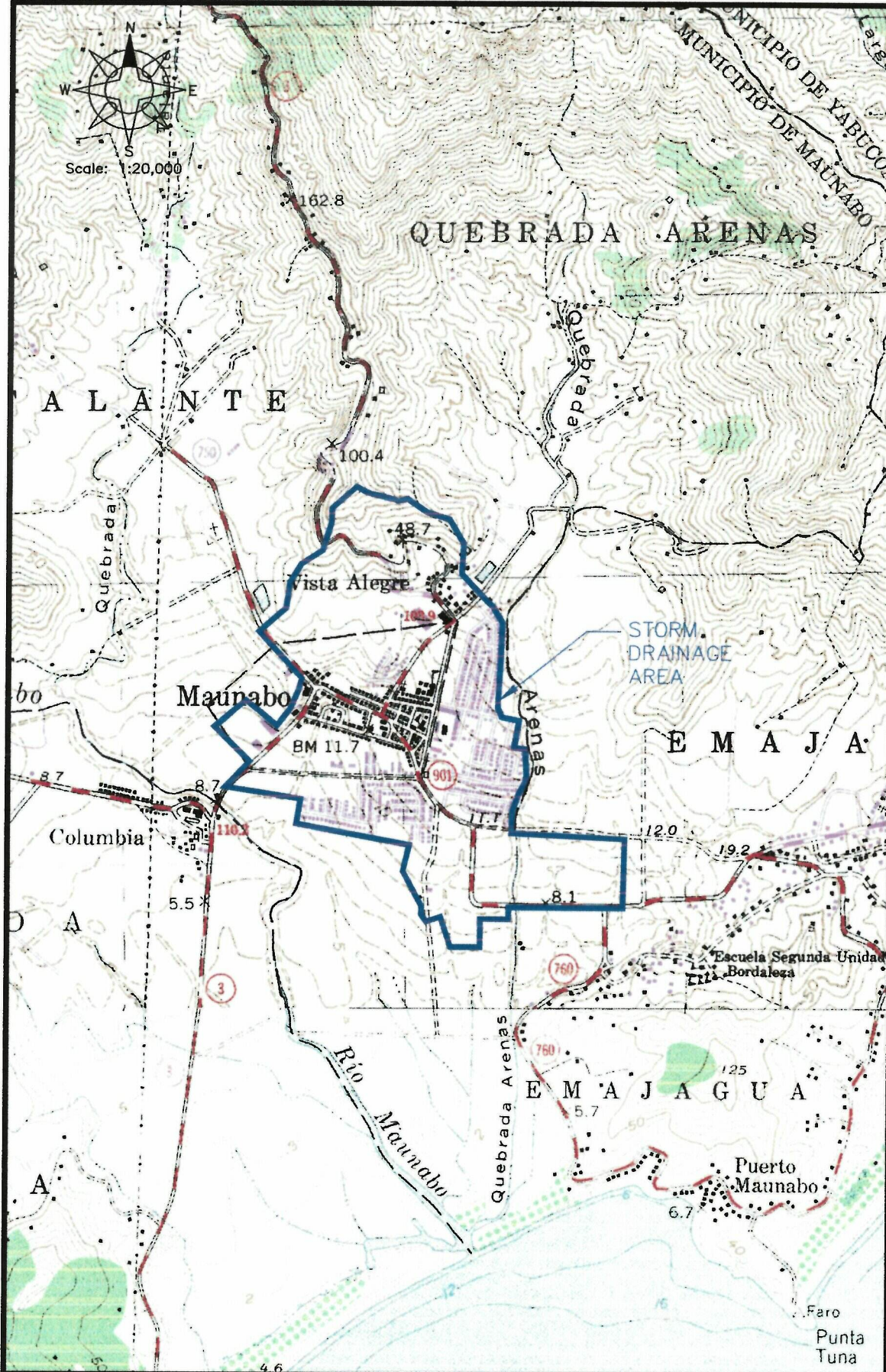
By definition under Rule II of the NPDES Program, both the Urban Zone (or Pueblo) and the two communities surrounding the Pueblo (Palo Seco Community and Emajagua Community) are to be regulated for the Municipality of Maunabo. However, as established by the EPA in January 9, 1998 for Puerto Rico, only 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 are 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.

## Appendix C





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

Attachment No. 1

Topographic Map of the Maunabo Territory

Scale: 1:20,000



**CA Engineering, PSC**





**LEGEND**

- Drainage area discharging to Rio Matunabo
- Drainage area discharging to Huebrada Arenas
- Flow direction
- Flow discharge point



Google  
© 2009

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

Attachment No. 2  
General Map of the Storm Sewer System

Scale: 1:9,000



**CA Engineering, PSC**

United States Environmental Protection Agency  
National Pollutant Discharge Elimination System  
Notice of Intent (NOI) for coverage under the Small Municipal Separate  
Storm Sewer System (MS4) General Permit (PRR040000) for Puerto Rico

**Part A. General Information**

1. Name of Municipality or Organization: Municipality of Maunabo
2. Type:  Federal  State  Municipality  Other: \_\_\_\_\_
3. Existing Permittee:  Yes  No If yes, provide EPA NPDES Permit Number: P R R 0 4 0 0 6 7
4. Location Address:
  - a. Street: Street Santiago Iglesias # 1
  - b. City: Maunabo State: PR Zip Code: 00707
5. Mailing Address:
  - a. Street: PO Box 8
  - b. City: Maunabo State: PR Zip Code: 00707-0008
6. Telephone Number: 787-861-0825 Fax: 787-861-1165
7. E-mail: jorge.marquez32@yahoo.com
8. Standard Industrial Classification (SIC) Code (see instructions for common codes): 9 1 9 9
9. Latitude: (use the format provided.) Longitude: (use the format provided.)  
*2.2.4.2 Approximate center of the regulated portion of the MS4.*  
1 8 ° 0 0 ' 2 4 " N (degrees, minutes, seconds) 6 5 ° 5 3 ' 5 8 " W (degrees, minutes, seconds)  
Or  
\_\_\_\_\_ ° N (degrees decimal) \_\_\_\_\_ ° W (degrees decimal)

**Part B. Primary MS4 Program Manager Contact Information**

1. Name: Mr. Hector Morales
2. Position Title: Director - Maunabo Municipal Public Works
3. Stormwater Management Program (SWMP) Location (web address or physical location): \_\_\_\_\_  
Municipality of Maunabo
4. Mailing Address:
  - a. Street: PO Box 8
  - b. City: Maunabo State: PR Zip Code: 00707-0008



5. Telephone Number: 787-861-3853

6. E-mail: obraspublicas.maunabo@gmail.com

### Part C. Eligibility Determination

1. Endangered Species Act (ESA) determination complete?  Yes  No **Refer to Appendix A**

a. Eligibility Criteria (check all that apply):  A  B  C  D  E  F

2. National Historic Preservation Act (NHPA) determination complete?  Yes  No

a. Eligibility Criteria (check all that apply):  A  B  C  D

### Part D. Map/Boundaries

1. MS4/Organization Description of regulated boundaries (narrative):

**Refer to Appendix B**

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2. Location Map/Boundaries. A location map must be attached showing the pertinent city, town, wards, or boundaries, the boundaries of the Small MS4, including surface water body(s), and the "urbanized area" (UA) when applicable. **Refer to Appendix C**

Is map attached?  Yes  No

### Part E. MS4 Infrastructure (if covered under the 2006 general permit)

1. Estimated Percent of Outfall Map Complete? (Section 4.2.3 of 2006 general permit): 25 %

a. If ~~100%~~ of 2006 requirements are not met, enter an estimated date of completion: 06/30/2021  
(MM/DD/YYYY)

b. Web address where MS4 map is published: **Refer to Appendix C**  
*If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission.*

### Part F. Bylaw/Ordinance Development (if covered under the 2006 general permit)

1. Illicit Discharge Detection and Elimination (IDDE) authority adopted?  Yes  No

a. Effective Date or Estimated Date of Adoption: 06/30/2018  
(MM/DD/YYYY)



2. Construction/Erosion and Sediment Control authority adopted?  Yes  No

a. Effective Date or Estimated Date of Adoption: 06/30/2018  
(MM/DD/YYYY)

3. Post-Construction Stormwater Management adopted?  Yes  No

a. Effective Date or Estimated Date of Adoption: 06/30/2018  
(MM/DD/YYYY)

**Part G. Receiving Waters**

List the names of all surface waterbody segments to which your MS4 discharges. For each waterbody segment, please report the number of outfalls discharging into it and, if applicable, any impairments. You may attach additional information.

Waterbody Segment that receives flow from the MS4	Number of Outfalls into receiving waterbody segment	Have any monitoring been performed to outfalls? (Yes/No)	List of Pollutant(s) causing impairment (if applicable)	List of TMDL Pollutant (s) (if any)
Maunabo River	Unknown	Unknown	Fecal Coliform Cyanide Thermal Modifications	Fecal Coliform Needed Needed
Arenas Creek	Unknown	Unknown	Unknown	Unknown



**Part H. Summary of Stormwater Management Program (SWMP) under the 2006 Small MS4 General Permit**

For every measurable goal and associated Best Management Practice (BMP) listed in the adopted program, provide the following information (You may include additional pages):

BMP Description or BMP ID (e.g. MCM-1)	Goal Achieved? (Yes/No)	Continued in next permit cycle? (Yes/No)	Who was the targeted audience? Explain reason for not achieving goal.	Modification(s) to goals or BMP for next permit cycle
MCM-1 Public Education	No	Yes	The targeted audience are the general public, residents, commercial establishments, students, visitors, and municipal offices. The goal was not achieved because no activity was performed.	Goals remain the same and will be implemented for this next permit cycle. BMP for PSA was substituted with BMP Storm Water Web Page. Also, as part of the recycling program, the Municipality will maximize resources and plans to include storm water management practices as part of the educational program (communities, schools, and private sector).
MCM-2 Public Involvement and Participation	No	Yes	The targeted audience are community groups, residents, civic groups, contractors, associations, professionals, farmers, municipal employees and schools. The goal was not achieved because no activity was performed.	Goals and BMP's remain the same and will be implemented for this next permit cycle. An additional BMP was included.
MCM-3 Illicit Discharge Detection and	No	Yes	The targeted audience are MS4 municipal managers, developers, contractors, communities, local industries, and emergency response personnel. The goal was not achieved because no activity was performed.	Goals and BMP's remain the same and will be implemented for this next permit cycle.
MCM-4 Construction Site Storm Water	No	Yes	The targeted audience are MS4 municipal managers, contractors, construction industry and municipal legal representatives. The goal was not achieved because no activity was performed.	Goals and BMP's remain the same and will be implemented for this next permit cycle. An additional BMP was included.
MCM-5 Post-Construction Storm Water Management in Development and Redevelopment	No	Yes	The targeted audience are MS4 municipal managers, municipal public work personnel, and regulated community. The goal was not achieved because no activity was performed.	Goals and BMP's remain the same and will be implemented for this next permit cycle.
MCM-6 Pollution Prevention (Good Housekeeping for Municipal Operations)	No	Yes	The targeted audience are municipal vehicle maintenance operators. The goal was not achieved because no activities were performed after the first training session in April 2015.	Goals remain the same and will be implemented for this next permit cycle. New BMP's were established for this permit cycle.



**Part I. 2016 Stormwater Management Program (SWMP) Summary**

Public Education and Outreach (See Section 2.4.2 for detailed information of required BMPs):

<b>BMP Description or BMP ID (e.g. MCM-1)</b>	<b>Education Topic (Identify the issue your BMP is educating the public about.)</b>	<b>Outreach Method (Describe the method used to convey this topic, e.g. mailing, events, school, etc.)</b>	<b>Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., number mailing sent, people at event, class participation, etc.)</b>
Development of new and review/education of existing educational material related with storm water pollution control.	No activity was performed during this permit cycle. The education topics are: toxic effects, simple water pollution control practices, environmental impacts, and illegal discharges awareness.	No activity was performed during this permit cycle. The creation of pamphlets, flyers, ads, brochures for general information purposes.	The number of pamphlets, flyers, ads, and brochures distributed.
Conductance of conferences	No activity was performed during this permit cycle. The education topics are: storm water quality and the importance of pollution prevention.	No activity was performed during this permit cycle. Conductance of conferences	List of attendees from community groups, public and private schools, industry representatives, and other local components.
Storm Water Web Page	No activity was performed during this permit cycle. The education topics is storm water pollution control.	No activity was performed during this permit cycle. Add in the Municipality's existing web page a section dedicated to Storm Water Pollution (pollution prevention, control, etc.).	Quantity of emails received and quantity of web page visitors.
Creation of school educational material	No activity was performed during this permit cycle. The education topic is the importance of storm water pollution prevention and control.	No activity was performed during this permit cycle. 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.
Development of storm water related posters	No activity was performed during this permit cycle. The education topics are storm water pollution prevention and control.	No activity was performed during this permit cycle. Display in schools and municipal government localities.	Completion and placement of storm-related posters in schools and municipality.



**Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)**

**Public Involvement and Participation (See Section 2.4.3 for detailed information of required BMPs):**

BMP Description or BMP ID (e.g. MCM-1)	Program Description (Describe the program and how it will inspire public participation, e.g. special events, volunteer sampling and monitoring efforts, household hazardous waste recycling, etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., participation, amount of sampling performed, waste collected, etc.)
Storm Drain Stenciling Program	<p>No activity was performed during this permit cycle.</p> <p>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.</p>	<p>Institution of a voluntary, on-going catch basin stenciling program with the target of stenciling all catch basins by the end of the permit effectiveness period.</p>
Conductance of on-going series of public forums/ discussions	<p>No activity was performed during this permit cycle.</p> <p>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.</p> <p>The municipality will conduct at least one public forum directed at development of ordinances for construction and post-construction storm water pollution controls.</p>	<p>Final ordinances on storm water pollution control</p>
Implementation of a municipal stenciling maintenance program in conjunction with routine catch basin cleaning	<p>No activity was performed during this permit cycle.</p> <p>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.</p>	<p>The number of catch basin stenciled, the number of catch basin maintained and the number of catch basin re-stenciled.</p>
Establish an "adopt-a-stream" program	<p>No activity was performed during this permit cycle.</p> <p>Attempt to establish an "adopt-a-stream" program where light infrastructure debris will be removed and maintenance needs will be identified.</p>	<p>The number of voluntary "adopt-a-stream" program established.</p> <p>The number of scheduled and performed maintenance activities.</p> <p>The quantity of debris removed during maintenance activities</p>
Complaints	<p>The Municipality has established through the Public Works Office a Complaint Service Program.</p>	<p>The number of complaints received.</p> <p>The number of complaints resolved.</p>



**Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)**

**Illicit Discharge Detection and Elimination (See Section 2.4.4 for detailed information of required BMPs):**

<b>BMP Description or BMP ID (e.g. MCM-1) MCM-3 Illicit Discharge Detection and Elimination</b>	<b>Program Description (Describe the program and how it will identify and remove illicit connections from the MS4, e.g. new regulations, investigation practices, removal of illicit connections, etc.)</b>	<b>Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of investigation performed, identified and removed illicit connections, etc.)</b>
Storm Water System Map	No activity was performed during this permit cycle. Prepare a storm water infrastructure inventory for the urban area. 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.	The indicator that will determine if the goal has been met is the development of the Storm Water System Map within the urban zone.
Program to Detect, Identify, and Eliminate Illicit Dumping	No activity was performed during this permit cycle. Identify illicit connections by means of a survey of the SWS and the outfalls.	The number of identified illicit discharges into SWS and the number of eliminated identified illicit discharges.
Development and implementation of a Storm Water System Permit Compliance and Enforcement Program	No activity was performed during this permit cycle. Create an ordinance aimed at the establishment of a Storm Water System Permit Compliance and Enforcement Program	The indicator that will determine if the goal has been met is the development of new ordinances(s) as necessary to implement MCM-3.
Development of an ordinance that prohibits disposal of waste in a non-permitted area or into a storm drain system	No activity was performed during this permit cycle. 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.
Illicit discharge and illegal dumping hotline	No activity was performed during this permit cycle. Reduction of illegal dumping and/or illicit discharge occurrences	The indicator that will determine if the goal has been met is the number of environmental complaints through the hotline, and number of municipal employees trained to attend any environmental emergency and enforcement.  The quantity of debris and waste removed.
Storm Water System inspection program.	No activity was performed during this permit cycle. General assessment of the Storm Water System conditions.	The indicator that will determine if the goal has been met is the number of illicit connections found and eliminated. The quantity of debris and waste removed.



**Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)**

Construction Site Stormwater Runoff Control (See Section 2.4.5 for detailed information of required BMPs):

<b>BMP Description or BMP ID (e.g. MCM-1) MCM-4 Construction Site Storm Water Run-off Control</b>	<b>Program Description (Describe the program and how it will help control stormwater runoff at construction sites, e.g. new regulations, construction practices, inspection protocols, etc.)</b>	<b>Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of inspections performed and sites actively regulated, etc.)</b>
Municipal endorsement to projects conditional to submittal of Storm Water Runoff Control Plan	No activity was performed during this permit cycle. Request from Contractors to submit a certified plan for the control of storm water before start of construction of any project.	The indicator that will determine if the goal has been met is the number of inspections to constructions activities and the number of projects endorsed.
Minimize the non-approved connections to the Storm Water System during constructions.	No activity was performed during this permit cycle. Request contractors to certify that all Storm Water System connections were performed in accordance with approved plans and specifications.	The indicator that will determine if the goal has been met is the number of inspections to constructions activities and the number of certified Storm Water Systems connections
Updates to the original Storm Drain System Map.	No activity was performed during this permit cycle. Request developers, contractors and designers on all construction contracts, to submit "as-built" drawings showing all new connections to storm water system, conveyances and discharge points for developments and commercial activities to the Municipal Government.	The indicator that will determine if the goal has been met is the number of inspections to constructions activities and the number of "as-built" received from construction contracts and incorporated to the Storm Drain System Map updates.
Construction Works	The Municipality has implemented a procedure for Construction Works. Maunabo residents have to complete a form for rehabilitation and construction works development. Municipal Public Works personnel review the scope of work prior and after the works are completed.	The indicator that will determine if the goal has been met is the number of form for rehabilitation and constructions works filled and completed.



**Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)**

**Post-Construction Stormwater Management in New Development and Redevelopment** (See Section 2.4.6 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) MCM-5 Post-Construction Storm Water Management in Development and Redevelopment	Program Description (Describe the program and how it will control stormwater runoff from properties after they are developed, e.g. new regulations, practices, or resources for contractors to use Low Impact Development (LID), etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of implemented practices, development of capacity building resources, etc.)
Inspection and preventive maintenance program	No activity was performed during this permit cycle. Develop and implement a program for inspection and preventive maintenance of structural storm water runoff control.	The indicator that will determine if the goal has been met is the number of seminars held for developers, contractors and municipal employees, and the number of educational material distributed.  Reduction of MS4 permit non-compliance incidences.
Protect municipal properties within upland watershed susceptible to erosion problems	No activity was performed during this permit cycle. Implement erosion control measures such as seeding, mulching, protection of natural features, and urban forestry.	Reduction of MS4 permit non-compliance erosion incidences.  The indicator that will determine if the goal has been met is the number of erosion control measures implemented
Development and implementation of a permit system Regulated Community for connection to the Municipality's Storm Water Sewer System	No activity was performed during this permit cycle. Create an ordinance aimed at the establishment of a permit system for connection to the Municipality's Storm Water Sewer System.	The indicator that will determine if the goal has been met is the number of permits expedited and the development of new ordinances(s) as necessary to implement MCM-5.



**Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)**

Good Housekeeping and Pollution Prevention in Municipal Operations (See Section 2.4.7 for detailed information of required BMPs):

<b>BMP Description or BMP ID (e.g. MCM-1)</b>	<b>Program Description (Describe the program and how it will mitigate stormwater runoff at municipal properties or through municipal activities, e.g. installation of structural stormwater controls on the municipal properties, new practices to reduce pollutant exposure to rain events, runoff management, trainings, etc.)</b>	<b>Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., structural BMPs installed, SOPs developed and implemented, etc.)</b>
Storm Drain System Cleaning Program	Trained municipal personnel inspects, maintains and cleans storm drains, and sewer system. The Municipality has implemented a cleaning schedule, the maintenance occurs daily in three (3) routes and every 30 days to the entire urban area.	The indicator that will determine if the goal has been met is the number of storm drains and miles of sewer system cleaned annually.
Scrap Tires	The Municipality performs twice a year scrap tires collection.	The indicator that will determine if the goal has been met is the number of scrap tire collected annually.
Green Areas Maintenance Program	The Municipality has implemented a Green Area maintenance program. The maintenance schedule for trimming in green urban spaces is every 10 days.	The indicator that will determine if the goal has been met is the number of green urban spaces maintained annually.
Used Oil Management	Continue with an on-going- Used Oil Management Program. The Municipality has an agreement with a Recycling Company for properly disposal.	The indicator that will determine if the goal has been met is the number of gallons of used oil collected and properly disposed annually.
Parking Lot Cleaning and Maintenance Program	Trained municipal personnel inspects, maintains and cleans on a daily basis the public parking lots .	The indicator that will determine if the goal has been met is the number of parking lots cleaned annually.
Septic Tanks	The Municipality has established an Ordinance No.2 (Serie 2015-2016) in order to regulate the use and fees for septic tanks cleaning services.	The indicator that will determine if the goal has been met is the number of septic tanks cleaned annually.
Bulky Waste	The Municipality has implemented a C & D and Bulky Waste Collection program. The maintenance schedule for trimming in green urban spaces is every 10 days.	The indicator that will determine if the goal has been met is the number of cubic yards or tons collected and disposed annually.