

# ESTADO LIBRE ASOCIADO DE PUERTO RICO MUNICIPIO AUTÓNOMO DE GUAYAMA

### Hon. Eduardo E. Cintrón Suárez Alcalde

September 30, 2016

Mr. Sergio Bosques Regional Store Water Coordinator Caribbean Environmental Protection Division U.S. Environmental Protection Agency, Region II City View Plaza II –Suite 7000 #48 Rd. 165 km 1.2 Guaynabo, Puerto Rico 00968-8069 2017 MAR 24 AM II: 20



As part of the provisions of the Clean Water Act, Section 402 (p), requires that storm water discharges, associated with municipal separate storm sewer system (MS4s) in urbanized areas, to waters of the US must be authorized by a National Pollutant Discharge Elimination System (NPDES) permit. In order to comply with this requirement, we are submitting our Notice of Intent for the NPDES Permit. The updated SWMP document will be modified in the next 6 months as required in Section 1.11 of the 2016 signed permit, and pursuant to Title 40, Part 122.34 Subpart B, or Permit Application and Special NPDES Program Requirements. The Municipality of Guayama has the intention of comply with the Permit's provisions and EPA requirements.

If you need additional information, do not hesitate to contact us at Mayors office at 787-864-0600.

Sincerely,

(Hon. Eduardo E. Cintrón Syarez, I

Mayor

Enclosure

Notice of Intent (NOI)

## **MUNICIPIO DE GUAYAMA**

### **NOTICE OF INTENT (NOI)**

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE II,
REGULATED SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

**INDIVIDUAL PERMIT** 

**MINICIPALITY OF GUAYAMA** 

**EPA REGION 2, PUERTO RICO** 

Attn: Mr. Sergio Bosques - Regional Store Water Coordinator

September 2016

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 Guayama		
2.	Type: OFederal OState & Municipality Other:		
3.	Existing Permittee:   Yes  No If yes, provide EPA NPDES Permit Number: PRRO40 0 6 1		
4.	Location Address:		
	a. Street: Street Vicente Palés # 26 East		
	b. City: Guayama	State: PR Zip Code: 00784	
5.	Mailing Address:		
	a. Street: PO Box 360		
	b. City: <u>Guayama</u>	State: <u>PR</u> Zip Code: 00785-0360	
6.	Telephone Number: 787-864-0600	Fax: 787-864-5070	
7.	E-mail: info@viveelencanto.com		
8.	Standard Industrial Classification (SIC) Code (see instruc	tions for common codes): $9 19 9$	
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	7 ° 5 8 ′ 39. 77 ″ <b>N</b> (degrees, minutes, seconds)	6 6 ° 0 6 ′ 29. 13 ″ W (degrees, minutes, seconds)	
	Or		
	• N (degrees decimal)	• W (degrees decimal)	
Part B.	Primary MS4 Program Manager Contact Information		
1.	Name: Mr. Ramón Conde		
2.	Director Cuayama Municipal Public Work	S	
3.			
	Municipality of Guayama		
4.	Mailing Address:		
	a. Street: PO Box 360		
	b. City: Guayama	State: PR Zip Code: 00785-0360	

	Telephone Number:	787-864-0600	
6.	E-mail:in	nfo@viveelencanto.com	
Par	t C. Eligibility Determii	nation	
1 (1)	t c. Liigibility Determin		
1.	Endangered Species Ad	ct (ESA) determination complete? X Yes No Refer to Appendix A	
	a. Eligibility Crite	ria (check all that apply):   A  B  C  D  X  E  F	
2.	National Historic Prese	ervation Act (NHPA) determination complete? (X) Yes ( No	
	a. Eligibility Crite	ria (check all that apply): O A 🗴 B O C O D	
Par	t D. Map/Boundaries		
1.	MS4/Organization Des	scription of regulated boundaries (narrative):	
	Refer to Appendix I	В	
		·	
2.	Location Map/Bounda	ries. A location map must be attached showing the pertinent city, town, wards, or	
		daries of the Small MS4, including surface water body(s), and the "urbanized area" (	
	boundaries, the bound	Talles of the small wist, including surface water body(s), and the disamzed area (	JA)
		efer to Appendix C	JA)
		efer to Appendix C	JA)
Part E.	when applicable. Re	efer to Appendix C	JA)
	when applicable. Residue is map attache  MS4 Infrastructure (if	efer to Appendix C ed? X Yes No	JA)
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	when applicable. Real Is map attached  MS4 Infrastructure (if the second of the second	efer to Appendix C ed?	
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1.	when applicable. Reals map attached ls map attached MS4 Infrastructure (if the Estimated Percent of Ca. If 100% of 200 b. Web address with outfall map is NOI submission.	efer to Appendix C ed?	
1.	when applicable. Realls map attached Is map attached MS4 Infrastructure (if the Estimated Percent of Ca. If 100% of 200 b. Web address with outfall map is NOI submission.  Bylaw/Ordinance Development	efer to Appendix C ed?	

2.	Constr	uction/Erosion and Sediment Control authority adopte	ed? Yes	⊗ No
	a.	Effective Date or Estimated Date of Adoption:	06/30/2018	
			(MM/DD/YYYY)	
3.	Post-Co	onstruction Stormwater Management adopted?	○Yes	<b>⊗</b> 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)
Guamaní River	Unknown	Unknown	Fecal Coliform	Fecal Coliform
Branderi Creek	Unknown	Unknown	Fecal Coliform	Fecal Coliform
Seco River	Unknown	Unknown	Fecal Coliform	Needed
Melania Lake	Unknown	Unknown	Fecal Coliform	Fecal Coliform
Quebrada Melania	Unknown	Unknown	Fecal Coliform	Fecal Coliform
Río Seco Estuary	Unknown	Unknown	Fecal Coliform	Needed

Quebrada Corazón

Unknown

Unknown

Fecal Coliform

Fecal Coliform

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 and Outreach	No	Yes	The targeted audience is the public in general. 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-2 Public Involvement and Participation	No	Yes	The targeted audience is the community in general. 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-3 Illicit Discharge Detection and Elimination	No	Yes	The targeted audience is the municipality and public in general. 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 Run-off Control	No	Yes	The targeted audience is the construction industry and public in general. 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-5 Post-Construction Storm Water Management in Development and Redevelopment	No	Yes	The targeted audience is the community and public in general. 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 is the municipality and public in general. 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.

Part I. <u>2016</u> Stormwater Management Program (SWMP) Summary <u>Public Education and Outreach</u> (See Section 2.4.2 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1)	Education Topic (Identify the issue your BMP is educating the public about.)	Outreach Method (Describe the method used to convey this topic, e.g. mailing, events, school, etc.)	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.)
MCM-1 Public Education and Outreach Storm Water related Public Service Announcements	No activity was performed during this permit cycle.  This BMP has not been implemented.	No activity was performed during this permit cycle.  This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of Storm Water related Public Service Announcements performed.
MCM-1 Public Education and Outreach Development & Distribution of Storm Water related Materials	No activity was performed during this permit cycle.  This BMP has not been implemented.	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of material distributed in the community, schools, events, etc.
MCM-1 Public Education and Outreach Storm Water Web Page	No activity was performed during this permit cycle.  This BMP has not been implemented.	No activity was performed during this permit cycle.  This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of visitors to the Storm Water Web page.
MCM-1 Public Education and Outreach Storm Water Pamphlets, Booklets, and Flyers	No activity was performed during this permit cycle.  This BMP has not been implemented.	No activity was performed during this permit cycle.  This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of Storm Water Pamphlets, Booklets, and Flyers distributed.

## Part I. <u>2016</u> Stormwater Management Program (SWMP) Summary (continued) <u>Public Involvement and Participation</u> (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.)
MCM-2 Public Involvement and Participation Storm Drain Stenciling Program	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of volunteers or participants, the percentage of storm water drains marked within the MS4 area, and the number of storm water drains adopted.
MCM-2 Public Involvement and Participation Annual Cleanup	The Municipality performs annual cleanups prior to hurricane season. The documentation has not been gathered.	The indicator that will determine if the goal has been met is the number of cleanups, the number of groups or participants, and the quantity of trash removed by cleanup.
MCM-2 Public Involvement and Participation Public Involvement Program	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of groups or participants, and the number of event performed.
MCM-2 Public Involvement and Participation Community Hotline	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of calls received.

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):

BMP Description or BMP ID (e.g. MCM-1) MCM-3 Illicit Discharge Detection and Elimination	Program Description (Describe the program and how it will indentify and remove illicit connections from the MS4, e.g. new regulations, investigation practices, removal of illicit connections, 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 investigation performed, identified and removed illicit connections, etc.)
Storm Water System Map	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the development of the Storm Water System Map within the urban zone.
Implement Regulations to Enforce Non Storm Water Discharges	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the development of new ordinances(s) as necessary to implement MCM-3.
Educational Outreach	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of participants, events and material distribution.
Program to Detect, Identify, and Eliminate Illicit Discharges	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of illicit discharges reported by residents through visual inspection, the number of illicit discharges eliminated.
Program to Detect, Identify, and Eliminate Illicit Dumping	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of penalties enforced upon participants of ilegal dump.
Program to Detect, Identify, and Eliminate Wastewater Connections to the Storm Drain System	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of illicit connections found and eliminated.
Program to Detect and Eliminate Sanitary Sewer Overflow	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of sewer overflow discharges reported by residents through visual inspection, the number of sewer overflow discharges eliminated.
Program to Detect and Eliminate Failing Septic Systems	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of failing septic reported by the community and the number of field inspections.

## 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):

BMP Description or BMP ID (e.g. MCM-1) MCM-4 Construction Site Storm Water Run-off Control	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.)	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.)
Ordinances or Other Regulatory Mechanisms	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of ordinances development and inspections of CES Plans and SWPPP.
General Construction Site Waste Controls	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of inspections to constructions activities and the number of penalties enforced.
Informations Submitted by the Public	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of environmental complaints through the community hotline, and number of municipal employees trained to attend any environmental emergency and enforcement.
Construction Site Inspection and Enforcement	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of Standard Operation Procedures developed and Forms for the inspection of construction sites.

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

<u>Post-Construction Stormwater Management in New Development and Redevelopment</u> (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.)
Structural Porous Pavement	No activity was performed during this permit cycle. This BMP has not been implemented.	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.
Structural  Vegetative Practices (Storm Water Wetland Program)	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of brochures and guidelines with all the information and alternatives available on the market developed and distributed.
Structural  Vegetative Practices  Grassed Swale  Program)	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of brochures and guidelines with all the information and alternatives available on the market developed and distributed.
Structural Runoff Pretreatment Practices	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of brochures and guidelines with all the information and alternatives available on the market developed and distributed.
Non Structural Develop a regional growth planning process to obtain sprawl development and direct new growth into previously developed, discouraging excessive low density development.	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the approval of the revised Land Use Plan submitted to the Puerto Rico Planning Board
Non Structural Develop green parking techniques to reduce the contribution of parking lots to the total impervious and, consequently, the amount of storm water runoff.	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of brochures and guidelines with all the information and alternatives available on the market developed and distributed.
Non Structural Develop an alternative paver program that can replace asphalt and concrete and can be used for driveways, barking lots and walkways.	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of brochures and guidelines with all the information and alternatives available on the market developed and distributed.

#### Inspection and Maintenance Program

Develop an Inspection and Repair Program

No activity was performed during this permit cycle. This BMP has not been implemented.

The indicator that will determine if the goal has been met is the number of trainings, seminars held for developers, contractors and municipal employees, and the number of educational material distributed.

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

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

BMP Description or BMP ID (e.g. MCM-1) MCM-6 Pollution Prevention (Good Housekeeping for Municipal Operations)	Program Description (Describe the program and how it will mitigate stormwater runoff at municipal properties ort 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.)	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.)
Source Control  Pet Waste Collection  Program	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of participants, number of educational material, and pet waste bags distributed.
Source Control  Vehicle Maintenance and  Vehicle Washing Programs	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of educational material distributed, and good housekeeping practices established on the municipal and private fleets.
Source Control  Parking Lot & Street Cleaning and Roadway & Bridge  Maintenance Programs	No activity was performed during this permit cycle. This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of miles cleaned, the number of bridges cleaned and the quantity of scheduled roads, parking lots and bridges to be cleaned.
Source Control Storm Drain System Cleaning Program	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of miles of storm drains cleaned annually and the number of outfalls inspected and cleaned annually.
Material Management Alternate Products	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of alternate products used and the number of educational material distributed.
Material Management Hazardous Materials Storage and Material Management Programs	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of inspections to municipal facilities to verify the procedures for storing hazardous materials and material management.
Material Management Spill Response & Prevention Program and Used Oil Recycling Program	No activity was performed during this permit cycle This BMP has not been implemented.	The indicator that will determine if the goal has been met is the number of controlled spills, the number of gallons of used oil collected from municipal operations and from residents.

#### 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:	Fac. E. (4. A)
Print Name of Mayor/Elected Official: _	Hon. Eduardo E. Cintrón Suarez
Title: Mayor - Municipality of Guayama	Date:

## Appendix A

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## **United States Department of the Interior**

#### FISH AND WILDLIFE SERVICE

Caribbean Ecological Services Field Office CARR 301, KM 5.1, BO COROZO BOQUERON, PR 00622

PHONE: (787)851-7297 FAX: (787)851-7440 URL: www.fws.gov/caribbean/es



May 29, 2016

Consultation Code: 04EC1000-2016-SLI-0269

Event Code: 04EC1000-2016-E-00094 Project Name: Municipality of Guayama

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

For more information: Send all documents to: Attachment

Federal agencies to include conservation of threatened and endangered species into their project 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.

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

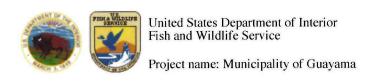
Email: caribbean\_es@fws.gov

http://www.fws.gov/caribbean/es

U.S. Fish and Wildlife Service

P.O. Box 491

Boquern, Puerto Rico 00622



## **Official Species List**

#### Provided by:

Caribbean Ecological Services Field Office POST OFFICE BOX 491 BOQUERON, PR 00622 (787) 851-7297\_ http://www.fws.gov/caribbean/es

Consultation Code: 04EC1000-2016-SLI-0269

Event Code: 04EC1000-2016-E-00094

Project Type: \*\* OTHER \*\*

**Project Name:** Municipality of Guayama

Project Description: EPA Region 2 Small MS4 General Permit.

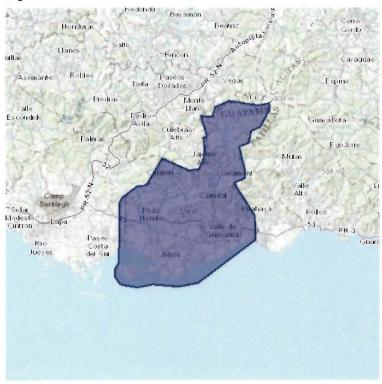
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.





Project name: Municipality of Guayama

### **Project Location Map:**



**Project Coordinates:** The coordinates are too numerous to display here.

Project Counties: Arroyo, PR | Cayey, PR | Guayama, PR | Patillas, PR | Salinas, PR





Project name: Municipality of Guayama

## **Endangered Species Act Species List**

There are a total of 15 threatened or endangered 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. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
Golden coqui (Eleutherodactylus jasperi)  Population: Entire	Threatened	Final designated	
guajon (Eleutherodactylus cooki)  Population: Entire	Threatened	Final designated	
Birds			
Puerto Rican Broad-Winged hawk (Buteo platypterus brunnescens)  Population: Entire	Endangered		
Puerto Rican Plain Pigeon (Columba inornata wetmorei)  Population: Entire	Endangered		
Puerto Rican Sharp-Shinned hawk (Accipiter striatus venator) Population: Entire	Endangered		
Yellow-Shouldered blackbird (Agelaius xanthomus) Population: Entire	Endangered	Final designated	





Project name: Municipality of Guayama

Flowering Plants			
cobana negra (Stahlia monosperma)	Threatened		
erubia (Solanum drymophilum)	Endangered		
palo de jazmin (Styrax portoricensis)	Endangered		
palo de ramon (Banara vanderbiltii)	Endangered		
uvillo (Eugenia haematocarpa)	Endangered		
Mammals			
West Indian Manatee (Trichechus manatus)  Population: Entire	Endangered	Final designated	
Reptiles			
Hawksbill sea turtle (Eretmochelys imbricata)  Population: Entire	Endangered	Final designated	
Leatherback sea turtle ( <i>Dermochelys</i> coriacea)  Population: Entire	Endangered	Final designated	
Puerto Rican boa (Epicrates inornatus)  Population: Entire	Endangered		



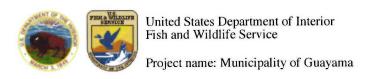


Project name: Municipality of Guayama

## Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Birds	Critical Habitat Type
Yellow-Shouldered blackbird (Agelaius xanthomus)	Final designated
Population: Entire	



## Appendix A: FWS National Wildlife Refuges and Fish Hatcheries

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





Project name: Municipality of Guayama

## **Appendix B: FWS Migratory Birds**

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no otherwise lawful activities. For more information regarding these Acts see: <a href="http://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php">http://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php</a>

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to: http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php

For information about conservation measures that help avoid or minimize impacts to birds, please visit: http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tools at:

http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php

#### Migratory birds of concern that may be affected by your project:

There are 27 birds on your Migratory birds of concern list.

Species Name	Bird of Conservation Concern (BCC)	Seasonal Occurrence in Project Area
Antillean Mango (Anthracothorax dominicus)	Yes	Year-round





Project name: Municipality of Guayama

		Total Committee and the committee of the
Audubon's Shearwater (Puffinus lherminieri)	Yes	Breeding
Black Swift (Cypseloides niger)	Yes	Breeding
Bridled Quail-Dove (Geotrygon mystacea)	Yes	Year-round
Caribbean coot (Fulica caribaea)	Yes	Year-round
Least bittern (Ixobrychus exilis hesperis)	No	Year-round
Least tern (Sterna antillarum)	Yes	Breeding
Limpkin (Aramus guarauna)	Yes	Year-round
Loggerhead Kingbird (Tyrannus caudifasciatus)	Yes	Year-round
Magnificent Frigatebird (Fregata magnificens)	Yes	Wintering
Mangrove Cuckoo (Coccyzus minor)	Yes	Year-round
Masked Booby (Sula dactylatra)	Yes	Wintering
Masked Duck (Nomonyx dominicus)	Yes	Year-round
Prairie Warbler (Dendroica discolor)	Yes	Wintering
Puerto Rican Oriole (Icterus dominicensis)	Yes	Year-round
Puerto Rican Vireo (Vireo	Yes	Year-round





Project name: Municipality of Guayama

		1 · · · · · · · · · · · · · · · · · · ·
latimeri)		
Ruddy Duck (Oxyura jamaicensis jamaicensis)	Yes	Year-round
Semipalmated Sandpiper (Calidris pusilla)	Yes	Wintering
Short-eared Owl (Asio flammeus)	Yes	Year-round
Smooth-Billed ani (Crotophaga ani)	Yes	Year-round
Solitary Sandpiper (Tringa solitaria)	Yes	Wintering
Swainson's Warbler (Limnothlypis swainsonii)	Yes	Wintering
White-Cheeked pintail (Anas bahamensis)	Yes	Year-round
White-Crowned pigeon (Patagioenas leucocephala)	Yes	Year-round
Wilson's Plover (Charadrius wilsonia)	Yes	Year-round
Worm eating Warbler (Helmitheros vermivorum)	Yes	Wintering
Yellow-breasted Crake (Porzana flaviventer)	Yes	Year-round

Project name: Municipality of Guayama

## **Appendix C: NWI Wetlands**

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

**Precautions** - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of





Project name: Municipality of Guayama

this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following NWI Wetland types intersect your project area in one or more locations. To understand the NWI Classification Code, see http://wetlandsfws.usgs.gov/Data/interpreters/wetlands.aspx.

NWI Classification Code	
MIUBL	
M1UB2/AB3L	
E1AB3L	
EIUBL	
E1AB3/UBL	
E1UBLx	
M1AB3L	
M1RF1/AB3L	
E2US2/3P	
E2EM1P	
E2SS3P	
E2FO3N	
E2EM1M	
E2SS3N	
E2FO3/US2M	
E2US3N	
	MIUBL MIUB2/AB3L EIAB3L EIUBL EIUBL EIUBLX MIAB3L MIRFI/AB3L E2US2/3P E2EM1P E2SS3P E2FO3N E2EM1M E2SS3N E2FO3/US2M





Project name: Municipality of Guayama

Estuarine and Marine Wetland	E2FO3M
Estuarine and Marine Wetland	E2AB3L
Estuarine and Marine Wetland	E2EM1N
Estuarine and Marine Wetland	E2SS3M
Estuarine and Marine Wetland	E2FO3P
Estuarine and Marine Wetland	E2US2/3M
Estuarine and Marine Wetland	E2EM1/US3P
Estuarine and Marine Wetland	E2USN
Freshwater Emergent Wetland	PEM1A
Freshwater Emergent Wetland	PEM1C
Freshwater Emergent Wetland	PEM1/SS3A
Freshwater Emergent Wetland	PEM1/FO3A
Freshwater Emergent Wetland	PEM1Fh
Freshwater Emergent Wetland	PEM1Cx
Freshwater Emergent Wetland	PEM1Fx
Freshwater Emergent Wetland	PEM1/FO3C
Freshwater Emergent Wetland	PEM1/UBH
Freshwater Forested/Shrub Wetland	PFO3A
Freshwater Forested/Shrub Wetland	PFO3Ah
Freshwater Forested/Shrub Wetland	PFO3C
Freshwater Forested/Shrub Wetland	PSS3C
Freshwater Pond	PUB





Project name: Municipality of Guayama

Freshwater Pond	PUBh
Freshwater Pond	PUBHx
Freshwater Pond	PUSCh
Freshwater Pond	PUBHh
Freshwater Pond	РИВН
Lake	L
Lake	L1UBHh
Riverine	R4SBC
Riverine	R5UBFx
Riverine	R5UBH

# **Municipality of Guayama**

## IPaC Trust Resources Report

Generated May 29, 2016 08:48 AM MDT, IPaC v3.0.7

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (<a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a>): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

## **Table of Contents**

PaC Trust Resources Report	
Project Description	
Endangered Species	
Migratory Birds	
Refuges & Hatcheries	
Wetlands	

#### U.S. Fish & Wildlife Service

## **IPaC Trust Resources Report**

PISH A WILDERFE

NAME

Municipality of Guayama

LOCATION

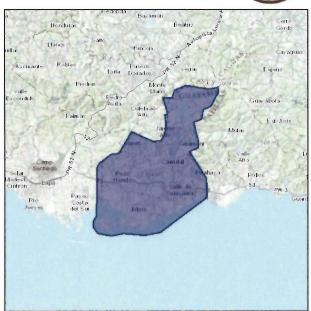
Puerto Rico

DESCRIPTION

EPA Region 2 Small MS4 General Permit.

**IPAC LINK** 

https://ecos.fws.gov/ipac/project/ JJBHX-Q3YDJ-GJPFS-PGTB3-75BFSM



## U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Caribbean Ecological Services Field Office

Post Office Box 491 Boqueron, PR 00622-491 (787) 851-7297

## **Endangered Species**

Proposed, candidate, threatened, and endangered species are managed by the <u>Endangered Species Program</u> of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

<u>Section 7</u> of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

## **Amphibians**

Golden Coqui Eleutherodactylus jasperi

Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=D00D

Guajon Eleutherodactylus cooki

Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=D00X

## **Birds**

### Puerto Rican Broad-winged Hawk Buteo platypterus brunnescens

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B06Y

### Puerto Rican Plain Pigeon Columba inornata wetmorei

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B049

### Puerto Rican Sharp-shinned Hawk Accipiter striatus venator

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B06Z

### Yellow-shouldered Blackbird Agelaius xanthomus

Endangered

CRITICAL HABITAT

There is final critical habitat designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B05T

## Flowering Plants

### Cobana Negra Stahlia monosperma

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=Q2JA

### Erubia Solanum drymophilum

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=Q2J3

### Palo De Jazmin Styrax portoricensis

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=Q2R6

#### Palo De Ramon Banara vanderbiltii

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=Q266

### Uvillo Eugenia haematocarpa

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=Q2A2

### **Mammals**

### West Indian Manatee Trichechus manatus

Endangered

CRITICAL HABITAT

There is final critical habitat designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=A007

# Reptiles

## Hawksbill Sea Turtle Eretmochelys imbricata

Endangered

CRITICAL HABITAT

There is final critical habitat designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=C00E

### Leatherback Sea Turtle Dermochelys coriacea

Endangered

CRITICAL HABITAT

There is final critical habitat designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=C00F

### Puerto Rican Boa Epicrates inornatus

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=C00P

## **Critical Habitats**

This location overlaps all or part of the critical habitat for the following species:

### Elkhorn Coral Acropora palmata

Final designated critical habitat

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=P001#crithab

### Staghorn Coral Acropora cervicornis

Final designated critical habitat

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=P000#crithab

### Yellow-shouldered Blackbird Agelaius xanthomus

Final designated critical habitat

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B05T#crithab

# Migratory Birds

Birds are protected by the <u>Migratory Bird Treaty Act</u> and the <u>Bald and Golden Eagle</u> <u>Protection Act</u>.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.<sup>[1]</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.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

The following species of migratory birds could potentially be affected by activities in this location:

Year-round

Audubon's Shearwater Puffinus Iherminieri Bird of conservation concern

Season: Breeding

Black Swift Cypseloides niger Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B0FW

Bridled Quail-dove Geotrygon mystacea Bird of conservation concern

Year-round

Caribbean Coot Fulica caribaea Bird of conservation concern

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B083

### Least Bittern Ixobrychus exilis

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B092

Least Tern Sterna antillarum

Season: Breeding

**Limpkin** Aramus guarauna

Year-round

Loggerhead Kingbird Tyrannus caudifasciatus

Year-round

Magnificent Frigatebird Fregata magnificens

Season: Wintering

Mangrove Cuckoo Coccyzus minor

Year-round

Masked Booby Sula dactylatra

Season: Wintering

Masked Duck Nomonyx dominicus

Year-round

Prairie Warbler Dendroica discolor

Season: Wintering

Puerto Rican Oriole Icterus dominicensis

Year-round

Puerto Rican Vireo Vireo latimeri

Year-round

Ruddy Duck Oxyura jamaicensis jamaicensis

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B084

Semipalmated Sandpiper Calidris pusilla

Season: Wintering

Short-eared Owl Asio flammeus

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B0HD

Smooth-billed Ani Crotophaga ani

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B0DS

Solitary Sandpiper Tringa solitaria

Season: Wintering

Swainson's Warbler Limnothlypis swainsonii

Season: Wintering

White-cheeked Pintail Anas bahamensis

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B0C9

Bird of conservation concern

Dird of conservation concern

### White-crowned Pigeon Patagioenas leucocephala

Bird of conservation concern

Year-round

http://ecos.fws.gov/tess\_public/profile/speciesProfile.action?spcode=B076

### Wilson's Plover Charadrius wilsonia

Bird of conservation concern

Year-round

Worm Eating Warbler Helmitheros vermivorum

Bird of conservation concern

Season: Wintering

Yellow-breasted Crake Porzana flaviventer

Bird of conservation concern

Year-round

# Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

# Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> 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>U.S. Army</u> <u>Corps of Engineers District</u>.

#### **DATA LIMITATIONS**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### **DATA EXCLUSIONS**

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### **DATA PRECAUTIONS**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

# Estuarine And Marine Deepwater

E1AB3/UBL E1AB3L E1UBL E1UBLx M1AB3L

M1RF1/AB3L

## M1UB2/AB3L

M1UBL

## **Estuarine And Marine Wetland**

E2AB3L

E2EM1/US3P

E2EM1M

E2EM1N

E2EM1P

E2FO3/US2M

E2FO3M

E2FO3N

E2FO3P

E2SS3M

E2SS3N

E2SS3P

**E2US2/3M** 

**E2US2/3P** 

E2US3N

**E2USN** 

# Freshwater Emergent Wetland

PEM1/FO3A

PEM1/FO3C

PEM1/SS3A

PEM1/UBH

PEM1A

PEM<sub>1</sub>C

PEM1Cx

PEM1Fh

PEM1Fx

# Freshwater Forested/shrub Wetland

PFO3A

PFO3Ah

PFO3C

PSS3C

# Freshwater Pond

**PUB** 

**PUBH** 

**PUBHh** 

**PUBHx** 

**PUBh** 

**PUSCh** 

## Lake

L

L1UBHh

# Riverine

R4SBC

**R5UBFx** 

**R5UBH** 

A full description for each wetland code can be found at the National Wetlands Inventory website: <a href="http://107.20.228.18/decoders/wetlands.aspx">http://107.20.228.18/decoders/wetlands.aspx</a>

# Appendix B

### Part D. Map/Boundaries Narrative

The Municipality of Guayama is located in the Southern Coastal Region of Puerto Rico; South of Cayey; East of Patillas; West of Salinas; and North of the Caribbean Sea (see Appendix C). The topography is mostly leveled and steep to the north region.

The main access to Guayama is through State Roads PR-3 and PR-54. The municipality is composed of 9 wards: Barrio Pueblo, Pozo Hondo, Carite, Caimital, Carmen, Guamanl, Jobos, Machete y Palmas. Of these, only 7 (Barrio Pueblo, Jobos, Machete, Algarrobo, Caimital, Guamani and Palmas) fall within the Urbanized Area.

The Municipality of Guayama has many surface water resources of importance. Many of the rivers present in the municipality boundaries are part of La Plata Watershed. These rivers are:

- Guamani River (discharge to the Caribbean Sea)
- La Plata River (originates in the Carite Reservoir, and runs through the North towards Cayey);
- Chiquito River (originates in the Carite Reservoir);
- Guavate River (runs through Cayey)

La Plata Watershed covers about 63.0 sq. miles and extends through the municipalities of Toa Alta, Naranjito, Comerio, Cidra, Barranquitas, Aibonito, Cayey, Comerlo Reservoir, La Plata Lake and the North portion of Guayama. This portion drains to the Carite Reservoir.

Some of the creeks present at the Municipality are:

- Culebras Creek (is a tributary of Guamani River)
- Los Barros Creek (is a tributary of Guamani River)
- Caimital Creek (discharge directly into the Caribbean Sea)
- Corazón Creek (forms the Caimital Creek and discharges to the Caribbean Sea)
- Branderi Creek (discharge directly into the Caribbean Sea)

The Carite Reservoir is in Carite Ward. It has a capacity of 17,310 acres-feet above sea level. The PR Electric Energy Authority is the owner of the reservoir. It was used for hydroelectric generation but at this moment is used to cover the domestic, industrial agricultural demand.

The Melania Lake is formed less than a mile West of Guayama. It is part of the irrigation system of the South Region and receives water from the Guamani River and the Carite Reservoir. It has a capacity of 312 acre-feet.

Another water resource of the Municipality of Guayama is the Jobos Estuarine System. This natural reserve is located in Jobos Bay, between the Municipalities of Guayama and Salinas. It covers a surface of 11 km2 (approx. 1,133 cdas).

The municipal operations are mostly categorized as administrative and community service. Some of the mayor responsibilities of the Municipality of Guayama are monitor budget, draft local legislation, develop local policy, and execute legally mandated government activities design to provide services to its residents. The most important municipal operations include the creation of local policies, strategies and plans aimed to develop our future growth; design, organize and develop projects, programs and activities for the general welfare and public service; construct, improve, repair, rebuild and/or rehabilitate facilities for the better service of their communities; organize and supervise the Municipal Police Force; establish programs to prevent incidents, including assisting the community in emergencies or natural disasters, catastrophic accidents or disasters and civil protection in general; protect and preserve our resources and promote the protection of health and safety of our citizens by giving maintenance to all the municipal facilities, regulate and administer the program concerning stray domestic animals; provide services and programs for the collection of waste and provide ongoing maintenance to the storm sewer system.

The Municipality of Guayama Storm Water Sewer System (MS4) in the urban areas, in general, consist of a series of catch basins, typically located within the right-of-way of municipal and state roads, interconnected by underground concrete or PVC pipes, which normally discharge to the Caribbean Sea. In the rural areas, the Municipal MS4 system typically consists of a series of interconnected open channel culverts, which run parallel to municipal and state roads, and usually discharge to a surface water body. Interconnected to the Municipal MS4s system are the storm water sewer systems owned and operated by the Puerto Rico Department of Public Works and Transportation and the Puerto Rico Highway and Transportation Authority. Also, interconnected to the Municipal MS4s systems are the discharges from NPDES (Storm water) permitted facilities and PRASA Pre-treatment permitted industrial and commercial facilities.

# Appendix C