



Gobierno de Puerto Rico
Municipio Autónomo de Guánica
Administración Municipal



Hon. Santos Seda Nazario
Alcalde

November 21, 2019

PRR040060

Mr. Sergio Bosques
Multimedia Permits and Compliance Branch
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency, Region 2
City View Plaza II, Suite 7000
48 RD. 165 Km. 1.2
Guaynabo, Puerto Rico 00968-8069

2019 DEC -5 AM 8:23

**RE: REQUEST FOR INFORMATION PURSUANT TO SECTION 308 OF THE CLEAN WATER ACT
SUBMITTAL OF A NOTICE OF INTENT UNDER THE 2016 SMALL MS4 GENERAL PERMIT
NPDES PERMIT TRACKING NUMBER PRR040060
CEPD-CWA-02-IR-2017-011**

Dear Mr. Bosques:

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 No. PRR040000. The document includes a plan to manage storm waters, pursuant to Tide 40, Part 122.34 Subpart B, or Permit Application and Special NPDES Program Requirements. The Municipality of Guánica has the intention of comply with the Permit's provisions and EPA requirements. In you need additional information, do not hesitate to contact us at the Mayor's Office at (787) 821-2777 or via e-mail at alcaldeguanica@icloud.com.

Sincerely,

Hon. Santos Seda
Mayor
Municipality of Guánica

Enclosure



Gobierno de Puerto Rico
Municipio Autónomo de Guánica
Administración Municipal



Hon. Santos Seda Nazario
Alcalde

CERTIFICATION

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



Signature

Date

Hon. Santos Seda
Owner
Municipality of Guánica
PO Box 785
Guánica, PR 00653-0785

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 Guánica
2. Type: Federal State Municipality Other: _____
3. Existing Permittee: (X) Yes () No If yes, provide EPA NPDES Permit Number: PRR040060
4. Location Address:
 - a. Street: 47-57 Calle 25 de Julio
 - b. City: Guánica State: PR Zip Code: 00653
5. Mailing Address:
 - a. Street: PO Box 785
 - b. City: Guánica State: PR Zip Code: 00653-0785
6. Telephone Number: (787) 821-2777 Fax: 787-821-1748
7. E-mail: alcaldeguanica@icloud.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.)
Approximate center of the regulated portion of the MS4.

1 7 ° 5 8 ' 2 0 " N (degrees, minutes, seconds) 6 6 ° 5 4 ' 3 0 " W (degrees, minutes, seconds)

Or

_____ ° N (degrees decimal) _____ ° W (degrees decimal)

Part B. Primary MS4 Program Manager Contact Information

1. Name: Zulma Bracero
2. Position Title: Municipal Administrator
3. Stormwater Management Program (SWMP) Location (web address or physical location):
47-57 Calle 25 de Julio, Guánica PR 00653
4. Mailing Address:
 - a. Street: PO Box 785
 - b. City: Guánica State: PR Zip Code: 00653-0785

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5. Telephone Number: 787-821-2777

6. E-mail: zulmab@hotmail.com

Part C. Eligibility Determination

1. Endangered Species Act (ESA) determination complete? Yes No
 a. Eligibility Criteria (check all that apply): A B C D E **Refer to Appendix A**
2. National Historic Preservation Act (NHPA) determination complete? X Yes No
 a. Eligibility Criteria (check all that apply): X A B C D **Refer to Appendix B**

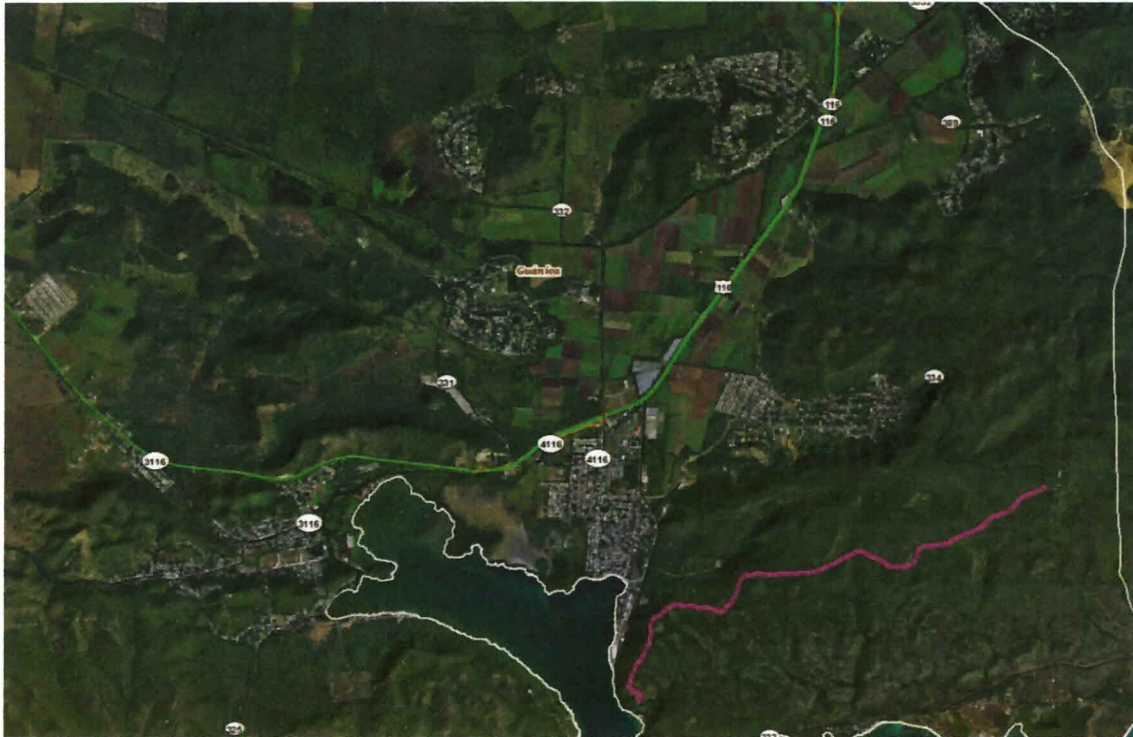
Part D. Map/Boundaries MS4/Organization Description of regulated boundaries (narrative):

1. The Municipality of Guánica urban area covers approximately 1.09 square miles (for purposes of our MS4 management plan, only the delineated urban area is considered the service area of the municipality storm sewer system). Guánica is located in southern coast, bordering the Caribbean Sea, south of Sabana Grande, east of Lajas, and west of Yauco. Its only river is Loco River, which rises in Yauco and flows into Guánica by the northeast and ends at the Guánica Bay. The annual precipitation is around 29 inches. Guánica is made up of 8 barrios (wards/districts).

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.

- b. Is map attached? X Yes No D **Refer to Appendix C**

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

1. Estimated Percent of Outfall Map Complete? (Part 4.2.3 of 2006 general permit): 0 %
- a. If 100% of 2006 requirements are not met, enter an estimated date of completion:
JUL/2022

The local Department of Public Works does not own storm sewer infrastructure maps for the urban area of Guánica. As part of the proposed activities in the Storm Water Management Plan, a storm drain system map will be developed during the first four years of the implementation. Several communities with more than 500 people per site are known to exist in Guánica. The communities are Montalva, Ensenada, Carenero, Caño, Susúa Baja, Ciénaga, Arena and most of them were established 1.5 miles from the Pueblo Ward. All these settlements have storm sewers and may have an impact in the Guánica Beach areas or nearby water bodies during significant rain events. Due to the high costs associated with this task, the Municipal Government of Guánica is proposing a three (3) years calendar to complete this action. Once completed, this map will aid the municipality in targeting outfalls with dry weather flows and other suspicious discharges for more in-depth inspection. Also this action will promote monitoring will help coordinate management activities to remove illicit connections and track storm drain system maintenance.

(MM/DD/YYYY)

- b. Web address where MS4 map is published: N/A
If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission.

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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: November/2021
(MM/DD/YYYY)

2. Construction/Erosion and Sediment Control authority adopted? Yes No
 - a. Effective Date or Estimated Date of Adoption: November/2021
(MM/DD/YYYY)

3. Post-Construction Stormwater Management adopted? Yes No
 - a. Effective Date or Estimated Date of Adoption: November/2021
(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)
Guánica Bay	Unknown	NO		
Guánica Lagoon	Unknown	NO		
Río Loco	Unknown	NO	Fecal Coliforms Turbidity Low Dissolved Oxygen	
Caribbean Sea	Unknown	NO		

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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
Storm water Education Brochure Distribution Campaign	NO	YES	General Public Goal was not reached due to lack of personnel and resources	Identify funds and staff to achieve the goal
Development of Educational and Outreach Material	NO	YES	General Public Goal was not reached due to lack of personnel and resources	Identify funds and staff to achieve the goal
Environmental Fair	NO	YES	General Public Goal was not reached due to lack of personnel and resources	Identify funds and staff to achieve the goal
Municipality Web page	NO	YES	General Public Goal was not reached due to lack of personnel and resources	Identify funds and staff to achieve the goal
Waterbodies cleanup	NO	YES	Municipal employees Department of Public Works	NO
Conferences to workshop	NO	YES	General Public Goal was not reached due to lack of personnel and resources	Identify funds and staff to achieve the goal
Illicit discharge and dumping training	NO	YES	General Public Goal was not reached due to lack of personnel and resources	Identify funds and staff to achieve the goal

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Part I. 2016 Stormwater Management Program (SWMP) Summary

Public Education and Outreach (See Part 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.)
Municipal Environmental Committee	Storm Water Management	Train the personal in BMP's to help educate other employees	Class Participation
Radio Public Announcement	Storm Water Management Program	Orientations through programs and radio interviews	Number of Phone Calls
Storm Water Interagency Committee	Create an interagency committee to involve agencies in the planning and implementation process of the Storm Water Management Program.	Make Screening for Possible Candidates to Become Part of the Committee & Get Involved with the Storm Water Management Program.	Amount of Participants Involved & the Development of Plans for further Implementation

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

Public Involvement and Participation (See Part 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 Water Interagency Committee	Create an interagency committee to involve agencies in the planning and implementation process of the Storm Water Management Program.	Achieve the creation of projects in conjunction with the involved agencies, (DRNA, JP, and others)

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Storm Water Volunteer Group	The municipality will recruit volunteers and train them to help sampling and identifying illegal discharges.	At least five participants
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Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

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

BMP Description or BMP ID (e.g. MCM-1)	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.)	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.)
Legal Prohibition and Enforcement	Locate problem areas, find the source, remove or correct illicit connections and document the course of action.	Maintain a record of the illicit discharges detected and removed/connected.
Plan to detect and Eliminate illegal Discharges	Provide to the community tools to denounce the situation such as telephone numbers and electronic address. Conduct field inspections. The information that this produces will be registered in the municipality. If there are illegal acts in water discharges this information will be used to reduce or stop the problem	It will be measured with the information of persons or entities that we identify
Legal Prohibition and Enforcement	Locate problem areas, find the source, remove or correct illicit connections and document the course of action.	Maintain a record of the illicit discharges detected and removed/connected.

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

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

BMP Description or BMP ID (e.g. MCM-1)	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.)
Implement of Erosion Control and sedimentation Prevention Measures	For any construction project with an greater than 900 meters must submit a control of erosion and sedimentation Plan. The measures in the Plan must be approved by the Environmental Quality Board.	Amount of side inspections. Public ordinance in place procedures for site inspection implemented. Reduction of sedimentation of water bodies.
Project Inspections	Members of the Environmental Committee and other agencies may perform inspections on every project.	Amount of inspections made per year.

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

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

BMP Description or BMP ID (e.g. MCM-1)	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.)
Detention of infiltration	Collect and gather runoff and slowly realizing it to receiving waters or drainage system A group of employees will be oriented to verify the establishment of BMP in the projects in operation	Train all staff that will be performing inspections. All the private and Municipal projects must implement BMP's correctly. List of projects and inspection forms for when inspection and orientations are conducted for BMPs establishments.

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

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

BMP Description or BMP ID (e.g. MCM-1)	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.)	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.)
Develop and implement an operation and maintenance program with good housekeeping measures	Training programs for employees in charge of maintenance and management of Municipal Public Works Department. Perform inspections an Municipal facilities.	Train all the municipal employees of the Municipal Public Works Department.

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. Santos Seda

Title: Mayor of Guánica

Date: _____

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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:

November 03, 2019

Consultation Code: 04EC1000-2020-SLI-0159

Event Code: 04EC1000-2020-E-00231

Project Name: Municipio Guánica, PR

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 FOLLOWING SPECIES LIST IS NOT A SECTION 7 CONSULTATION. PLEASE CONTACT OUR OFFICE TO COMPLETE THE CONSULTATION PROCESS

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 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

<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
- Marine Mammals
- 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

Project Summary

Consultation Code: 04EC1000-2020-SLI-0159

Event Code: 04EC1000-2020-E-00231

Project Name: Municipio Guánica, PR

Project Type: ** OTHER **

Project Description: MS4 - Urban Area

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/17.985589225340604N66.91615107738076W>



Counties: Guánica, PR

Endangered Species Act Species

There is a total of 13 threatened, endangered, or candidate species on this 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location is outside the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469	Threatened

Birds

NAME	STATUS
Puerto Rican Nightjar <i>Caprimulgus noctitherus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6972	Endangered
Yellow-shouldered Blackbird <i>Agelaius xanthomus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7383	Endangered

Reptiles

NAME	STATUS
<p>Hawksbill Sea Turtle <i>Eretmochelys imbricata</i></p> <p>There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656 General project design guidelines: https://ecos.fws.gov/ipac/guideline/design/population/153/office/41430.pdf</p>	Endangered
<p>Leatherback Sea Turtle <i>Dermochelys coriacea</i></p> <p>There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493 General project design guidelines: https://ecos.fws.gov/ipac/guideline/design/population/154/office/41430.pdf</p>	Endangered
<p>Puerto Rican Boa <i>Epicrates inornatus</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ecos.fws.gov/ipac/guideline/design/population/156/office/41430.pdf</p>	Endangered

Amphibians

NAME	STATUS
<p>Puerto Rican Crested Toad <i>Peltophryne lemur</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3958</p>	Threatened

Flowering Plants

NAME	STATUS
Bariaco <i>Trichilia triacantha</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1576	Endangered
Eugenia woodburyana No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8346	Endangered
Mitracarpus maxwelliae No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/268	Endangered
Mitracarpus polycladus No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/206	Endangered
Palo De Rosa <i>Ottoschulzia rhodoxylon</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5741	Endangered
Varronia rupicola There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6258	Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Yellow-shouldered Blackbird <i>Agelaius xanthomus</i> https://ecos.fws.gov/ecp/species/7383#crithab	Final

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
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 birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Coot <i>Fulica americana americana</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds May 1 to Sep 15
American Oystercatcher <i>Haematopus palliatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31

NAME	BREEDING SEASON
Antillean Mango <i>Anthracothorax dominicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Mar 1 to Aug 20
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Brown Booby <i>Sula leucogaster</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Jan 1 to Oct 15
Cape May Warbler <i>Setophaga tigrina</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds elsewhere
Least Tern <i>Sterna antillarum</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Apr 20 to Sep 10
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Limpkin <i>Aramus guarauna</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Jan 15 to Aug 31
Magnificent Frigatebird <i>Fregata magnificens</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Oct 1 to Apr 30
Mangrove Cuckoo <i>Coccyzus minor</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Apr 20 to Aug 20
Masked Duck <i>Nomonyx dominicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Jan 1 to Dec 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds elsewhere

NAME	BREEDING SEASON
<p>Puerto Rican Screech-owl <i>Megascops nudipes newtoni</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.</p>	Breeds Apr 1 to Jun 30
<p>Puerto Rican Vireo <i>Vireo latimeri</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.</p>	Breeds Apr 8 to Aug 1
<p>Ruddy Duck <i>Oxyura jamaicensis jamaicensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/7385</p>	Breeds May 10 to Sep 5
<p>Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.</p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/9480</p>	Breeds elsewhere
<p>West Indian Whistling Duck <i>Dendrocygna arborea</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/6973</p>	Breeds Jan 1 to Dec 31
<p>Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/9483</p>	Breeds elsewhere
<p>White-crowned Pigeon <i>Patagioenas leucocephala</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands. https://ecos.fws.gov/ecp/species/4047</p>	Breeds May 1 to Sep 30
<p>White-tailed Tropicbird <i>Phaethon lepturus catesbyi</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.</p>	Breeds Apr 15 to Jul 31
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.</p>	Breeds Apr 20 to Aug 5
<p>Wilson's Plover <i>Charadrius wilsonia</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.</p>	Breeds Apr 1 to Aug 20

NAME	BREEDING SEASON
Yellow-breasted Crake <i>Porzana flaviventer</i> This is a Bird of Conservation Concern (BCC) throughout its range in Puerto Rico and the Virgin Islands.	Breeds Jan 1 to Dec 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

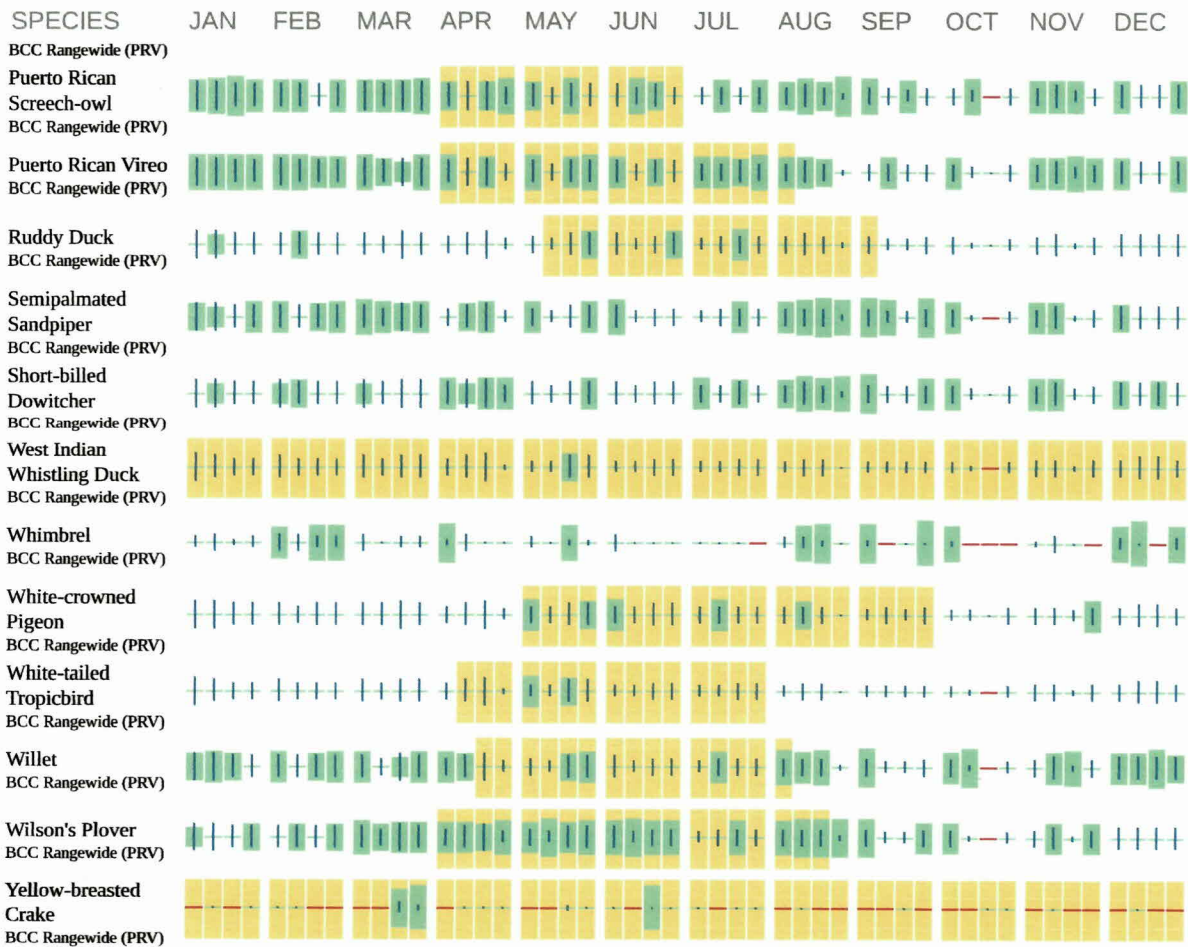
How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)



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>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in

the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In

contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Marine Mammals

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

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1. The [Endangered Species Act](#) (ESA) of 1973.
 2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
 3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME _____

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

ESTUARINE AND MARINE DEEPWATER

- [E1AB3/UBL](#)
- [E1UBL](#)

ESTUARINE AND MARINE WETLAND

- [E2EM1P](#)
- [E2FO3N](#)
- [E2SS3P](#)
- [E2US2/3P](#)

FRESHWATER EMERGENT WETLAND

- [PEM1A](#)
- [PEM1C](#)

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO3A](#)
- [PFO3C](#)
- [PSS3A](#)
- [PSS3C](#)

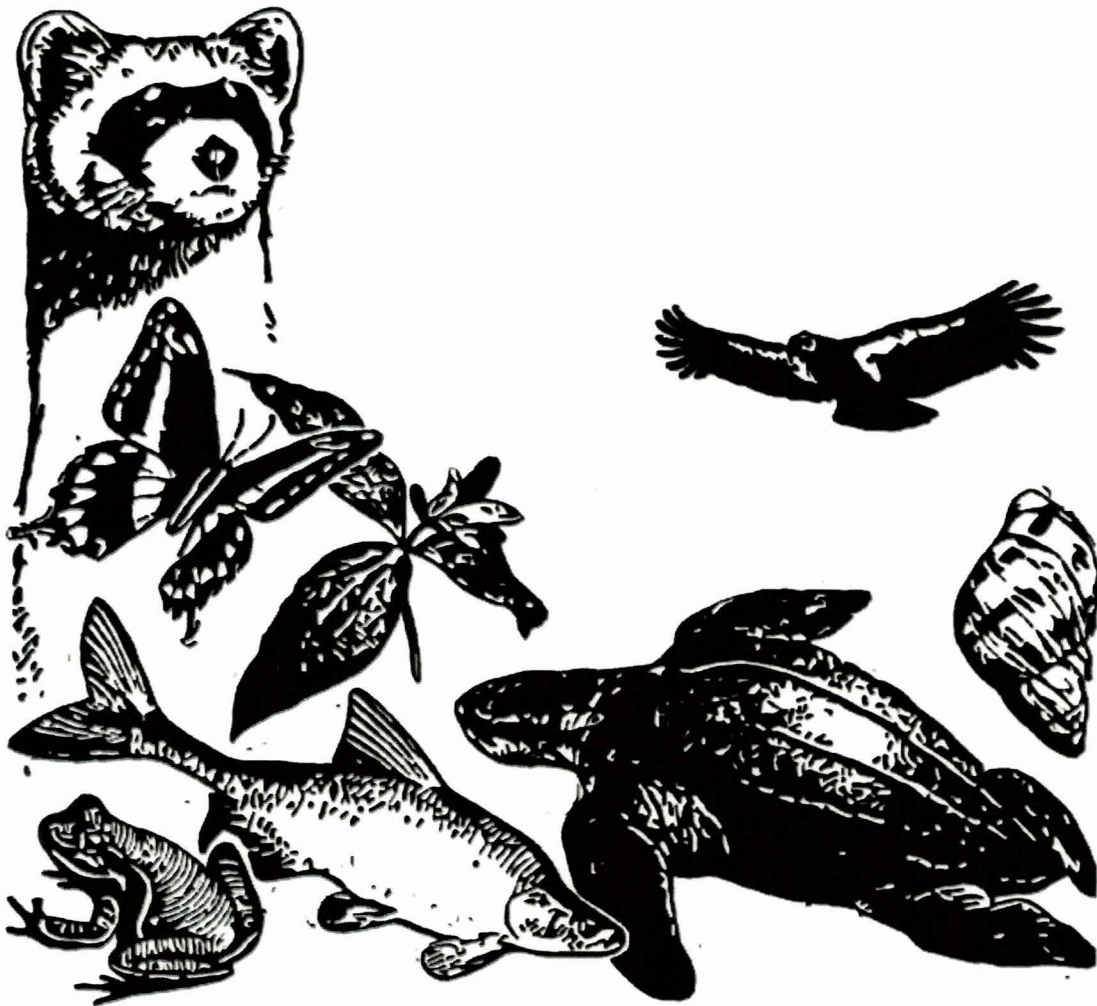
RIVERINE

- [R2UBHx](#)
- [R4SBC](#)
- [R5UBFx](#)
- [R5UBH](#)
- [R2UBH](#)
- [R2AB4/UBH](#)

U.S. Fish & Wildlife Service

General Project Design Guidelines (3 Species)

Generated November 03, 2019 05:32 AM MST, IPaC vunspecified



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

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Leatherback Sea Turtle *Dermochelys coriacea*

Puerto Rican Boa *Epicrates inornatus*

Species without general design guidelines available

Bariaco *Trichilia triacantha*

Eugenia woodburyana

Mitracarpus maxwelliae

Mitracarpus polycladus

Palo De Rosa *Ottoschulzia rhodoxylon*

Puerto Rican Crested Toad *Peltophryne lemur*

Puerto Rican Nightjar *Caprimulgus noctitherus*

Varronia rupicola

West Indian Manatee *Trichechus manatus*

Yellow-shouldered Blackbird *Agelaius xanthomus*

General Project Design Guidelines - Hawksbill Sea Turtle and 1 more species

Published by Caribbean Ecological Services Field Office for the following species included in your project

Hawksbill Sea Turtle *Eretmochelys imbricata*

Leatherback Sea Turtle *Dermochelys coriacea*

Sea turtle lighting

The proposed project falls within the range of the endangered hawksbill sea turtle (*Eretmochelys imbricata*) and the endangered leatherback sea turtle (*Dermochelys coriacea*). Based on the information provided we have the following comments and recommendations:

- 1) The nearby sand beach supports nesting habitat for the above mentioned sea turtles. The project should be designed to assure that no lights are visible from the beach.
- 2) The project should also comply with Puerto Rico Law 218 of 2008, Control and Prevention of the Lighting Pollution of Puerto Rico and the PR EQB 2014 Regulation to Control and Prevent Light Contamination. These laws and regulations clearly establish public policy that acceptable illumination fixtures are those that shield the light source to minimize glare impact on habitats. This applies to existing and new construction and for private lighting systems and will be used to develop new strategies to eliminate excessive lighting in all areas but in particular in beach zones.
- 3) Given the advances in technology, we recommend LED lighting for the luminaries. We recommend that all lights facing the beach and parking area also have LED lighting. The LED lighting and luminaries should be sea turtle friendly.
- 4) The concept of sea turtle friendly lighting is to use specific types of light sources that emit a wavelength of 450 nanometers or longer. This wavelength is virtually invisible to sea turtles if viewed indirectly. If the lights can be directly view from the beach, then the light source is paired with a lighting fixture that directly controls the direction and beam spread of the lighting. This means that light is effectively and accurately directed at the areas of concern without wasteful light.
- 5) LEDs should be of the proper wavelength (true red, orange or amber colored diode) and should not consist of white or blue LEDs with filter material. The following websites have information regarding the latest in sea turtle friendly lighting:

<http://seaturtlelighting.net>

http://www.superiorlighting.com/Turtle_Friendly_Lights_s/864.htm

<http://www.ledsource.com/blog/leds-provide-turtle-friendly-lighting>

- 6) The project should be landscaped with plants such as sea grape, button wood, and other coastal salt tolerant vegetation that can also be used to screen the night time lighting from the beach.
- 7) The project construction plans should include a lighting plan indicating the placement of lights, type of bulb and light orientation. The planting of vegetation, can also be included as part of the lighting plan. This plan should be submitted to our office.

For more information please contact us at (787)851-7297 or by email at caribbean_es@fws.gov



U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

Conservation Measures for the Puerto Rican boa (*Chilabothrus inornatus*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of federal lands as well as federal actions that may affect listed species, such as federal approval of private activities through the issuance of federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rico boa, destroy eggs is subject to penalties under federal law. If federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible effects to the species. Download the [project evaluations fact sheet](#) to learn more about the requirements or visit our [project evaluations webpage](#).

The endangered Puerto Rican (PR) boa (*Chilabothrus inornatus*, formerly *Epicrates inornatus*) is an endemic species and it is the largest snake that inhabits Puerto Rico. The PR boa is a non-venomous snake that does not pose any life threatening danger to humans, but be aware that some individuals may try to bite if disturbed or during capture or handling. The PR boa body color ranges from tan to dark brown with irregular diffuse marking on the dorsum but some individuals lack marking and are uniformly dark. Juveniles may have a reddish color with more pronounced markings. In general, as they mature, their body color tends to darken.



Adult PR boa - *Chilabothrus inornatus*
Photo: Puerto Rico by JP Zegarra

The PR boa has an island-wide distribution and occurs in a wide variety of habitat types ranging from wet montane to subtropical dry forest and can be found from virgin forest to areas that exhibit various degrees of human disturbance like roadsides or houses, especially if near their habitat. The PR boa is considered mostly nocturnal, remaining less active concealed or basking in the sun during the day.

The U.S. Fish and Wildlife Service (Service) has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the species and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional recommendations can be made besides the ones presented in this document.

Conservation Measures:

1. Inform all project personnel about the potential presence of the PR boa in areas where the proposed work will be conducted. A pre-construction meeting should be conducted to inform all project personnel about the need to avoid harming this species as well as penalties for harassing or harming boas. An educational poster or sign with photo or illustration should be displayed at the project site.
2. Prior to any construction activity, including removal of vegetation and earth movements, the boundaries of the project area and areas to be excluded and protected should be clearly marked in the project plan and in the field in order to avoid further habitat degradation into forested and conservation areas.
3. Once areas are clearly marked and prior to use of heavy machinery and any construction activity (including removal of vegetation and earth movement), a biologist or experienced personnel should survey the areas to be cleared to verify the presence of any PR boa within the work area. This should be done daily for the duration of the entire project.
4. The PR boa is considered more active at night. Thus, in order to maximize PR boa detection, the species can be searched for the night(s) prior to any vegetation clearing starts according to the construction plan and if snakes are found, they can be relocated accordingly (see #7).
5. Once the area has been searched for PR boas, vegetation should first be cleared by hand to the maximum extent possible. Vegetation should first be cut about one meter above the ground, prior to the use of heavy machinery for land clearing. Once land is cleared by hand, this will allow boas present on site to potentially move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any PR boas found need to be relocated accordingly (see #7).
6. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. PR boa data should also include a photo of the

animal (dead or alive), relocation site GPS coordinates, the time and date of the relocation, and comments on how the PR was detected and its behavior.

7. If a PR boa is found within any of the working or construction areas, activities should stop at the area where the PR boa is found and information recorded (see #6). Boas should be safely captured and relocated at least 1 km within suitable habitat (forested) and away from construction areas. Potential boa relocation sites should be pre-determined before the project starts and sites shared with the Service for review. Relocation of boas should be done by trained and designated personnel, and shall not harm or injure the captured boa. Activities at other work sites, where no boas have been found after surveying the area, may continue.
8. If immediate relocation is not an option, project related activities at this area should stop until the boa moves out of harm's way on its own or call the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation (phone #'s: 787-724-5700, 787-230-5550, 787-771-1124). The potential use of the PRDNER staff for these purposes should be coordinated with them at least 30 days before the project starts. If a PR boa is captured by the PRDNER, record the name of the PRDNER staff and information on where the PR boa will be taken.
9. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (in staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, boas need to be safely captured and relocated accordingly (see #7).
10. PR boas may also enter or occur within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed in areas farthest away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area.
11. If the event a dead PR boa is found, immediately cease all work in that area and record the information accordingly (see #6). If the PR boa was killed as part of the project actions, please include information on what conservation measures had been implemented and recommendations on what will be done to avoid further killing more individuals. A dead boa report should be sent by email (see contacts below) to the Service within 48 hours of the event.
12. Projects must comply with all state laws. Please contact the PRDNER for further guidance.

If you have any questions regarding the comments above, please contact the USFWS Monday to Friday 8am-430pm:

- Marelisa Rivera, Deputy Field Supervisor
 - Email: marelisa_rivera@fws.gov
 - Office phone 787-851-7297 ext. 206 or mobile 787-510-5219
- José Cruz-Burgos, Endangered Species Coordinator
 - Email: jose_cruz-burgos@fws.gov
 - Office phone 787-851-7297 ext. 218 or mobile 787-510-5206


January 21, 2010

Mr. Edwin Muñiz
Field Supervisor
Fish and Wildlife Service
PO Box 491
Boquerón, Puerto Rico 00622

RE: LISTED ENDANGERED AND CRITICAL SPECIES CONSULTATION
Municipal Government of Guánica
P.O. Box 785
Guánica, P.R. 000653-0785

Dear Mr. Muñiz:

On behalf of our client the Municipal Government of Guánica; Ecostahlia: Environmental Consultants is submitting to the Fish and Wildlife Service (FWS) Field Office a description of the Guánica's Municipal Storm Water Management infrastructure to comply with Certification of Eligibility to demonstrate compliance under the Small Municipal Separate Storm Sewer Systems (MS4s) Program of the National Pollutant Discharge Elimination System (NPDES). Appendix A of the MS4s regulation requires conferring on the agency for potential endangered or critical species or habitats within the site that could be impacted by the facility operations.

 The Municipality of Guánica is located in the southern coastal plains of Puerto Rico at Latitude 17° 58' 20.50" N and Longitude 66°28' 30" W. It has a territorial extension of 37 square miles. Guánica is bounded by north with the Sabana Grande and Yauco municipalities; south with the Caribbean Sea; west with the municipality of Lajas, and by the East with the municipality of Yauco. Guánica is divided into 8 wards: Pueblo, Arenas, Caño, Carenero, Ciénaga, Ensenada, Montalva y Susúa Baja. The town is about a two (2) hour drive southwest of San Juan. According to the Census 2000, the municipality has a population of 21,888 inhabitants. The town is surrounded by agricultural lands and xerophytes forests. In 1981 the United Nations designated the Guánica State Forest as part of the Biosphere Program. Highway Route 116, the nearest principal road, heads west toward San Germán and east toward Ponce, passing through the island of Puerto Rico's driest area. The town is located on a deeply indented harbor of the same name, bordered by rugged hills, barely a quarter-mile wide, but about two miles (3 km) from mouth to the town. For more than 80 years, the local economy was based on manufacture, agriculture, and sugar production. Once considered the largest sugar refinery in the Caribbean, Central Guánica left thousands of workers and farmers without jobs when it closed in the 1980s. The 54 acres property is now being considered for a major redevelopment project that include hotels, housing, shopping mall, marina and businesses.

The Municipality of Guánica's Storm Sewer System (MS4s) in the urban area in general consists of a series of open channel culverts and catch basins, typically located within the right-of-way of municipal and state roads, interconnected in some areas by underground concrete or PVC or corrugated steel pipes which normally discharge into the Guánica Harbor, the Río Loco River, creeks, streams, and the Southern Irrigation Canal. The Urban Area of the Guánica is part of one watershed basically divided into the north, east and west part of the urban zone. This watershed covers the north and west sides of the urban area, it is located south of the PR-Road 2 and west of PR-Road 116. During rain events, runoff from this area discharges into the Río Loco and later into the Caribbean Sea. Also, some runoff discharge into intermittent creeks that cross downtown and into the Guánica Harbor. Some areas within downtown Guánica contain illegal discharges that drain into the storm sewer system. Those illegal discharges are located within low income communities around the Guánica Plaza. According to the United States Fish and Wildlife Service Caribbean Endangered Species Map, thirteen (13) species may live in or near the municipality of Guánica.

COMMON NAME	SCIENTIFIC NAME	GROUP
No Common Name	<i>Trichilia triacantha</i>	Plant
Antillean Manatee	<i>Trichechus manatus</i>	Mammal
Roseate Tern	<i>Sterna dougalii</i>	Bird
No Common Name	<i>Stahlia monosperma</i>	Plant
Puerto Rican Crested Toad	<i>Peltophryne lemur</i>	Amphibian
No Common Name	<i>Ottoschulzia rhodoxylon</i>	Plant
No Common Name	<i>Mitracarpus polycladus</i>	Plant
No Common Name	<i>Eugenia woodburyana</i>	Plant
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Reptile
Puerto Rican Boa	<i>Epicrates inornatus</i>	Reptile
Green Sea Turtle	<i>Chelonia mydas</i>	Reptile
Piping Plover	<i>Charadrius melodus</i>	Bird
Puerto Rican Nightjar	<i>Caprimulgus noctitherus</i>	Bird

We would like to consult the FWS if these species or habitats are known to exist within the site. Enclosed, please find the following documents:

1. Location Map
2. Topographic Map
3. Aerial Photograph

Our office is handling all issues concerning the MS4s/NPDES permit for the Municipality of Ceiba. If you have any questions, or if you need more information, please do not hesitate to contact us via email or by phone at 787.513.3165 or 787.706.1453. I would like to thank you for your time and interest in this matter.

Sincerely,



Javier Vélez Arocho, Partner

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

Appendix B

National Register of Historic Places listings in western Puerto Rico

This is a list of properties and districts in the western municipalities of Puerto Rico that are listed on the National Register of Historic Places (Spanish: *Registro Nacional de Lugares Históricos*). It includes places along the western coast, and on islands, and on the western slope of Puerto Rico's Cordillera Central.

The area covered spans 12 municipalities: Moca, Aguadilla, Aguada, Rincón, Añasco, Mayagüez, Hormigueros, San Germán, Sábana Grande, Guánica, Lajas and Cabo Rojo.

Names of places given are as they appear in the National Register, reflecting name as given in NRHP application at the date of listing. Note, the National Register name system does not accommodate Spanish á, ñ and other letters.



National Register entries listed below are found in the highlighted 12 municipalities of Puerto Rico.

This National Park Service list is complete through NPS recent listings (<https://www.nps.gov/subjects/nationalregister/weekly-list.htm>) posted November 8, 2019.^[1]

Contents

Aguada

Aguadilla

Former listings

Añasco

Cabo Rojo

Guánica

Hormigueros


Lajas

Mayagüez





Former listings

[2]	Name on the Register	Image	Date listed ^[3]	Location	Barrio	Description
1	Hostos–Ramírez de Arellano School District		October 23, 2017 (#100001762 (http://npgallery.nps.gov/AssetDetail/NRIS/100001762))	Calle San Antonio and Calle 65th de Infantería 18°16'57"N 67°08'30"W	Añasco Pueblo	
2	Puente de Añasco		January 18, 2011 (#11000018 (https://npgallery.nps.gov/AssetDetail/NRIS/11000018))	Highway 2, km 146.1 18°16'21"N 67°09'42"W	Añasco Arriba and Sabanetas ^[c]	

Cabo Rojo

[2]	Name on the Register	Image	Date listed ^[3]	Location	Barrio	Description
1	Punta Ostiones		August 25, 2004 (#04000908 (https://npgallery.nps.gov/AssetDetail/NRIS/04000908))	Address restricted ^{[d][9]}	Miradero	
2	Faro de los Morrillos de Cabo Rojo		October 22, 1981 (#81000685 (https://npgallery.nps.gov/AssetDetail/NRIS/81000685))	South of Pole Ojea on Cabo Rojo 17°56'01"N 67°11'32"W	Boquerón and Llanos Costa	
3	Silva Bridge		July 19, 1995 (#95000834 (https://npgallery.nps.gov/AssetDetail/NRIS/95000834))	Highway 114, km 4 18°08'21"N 67°08'45"W	Guanajibo and Guanajibo ^[e]	Pratt pony truss bridge from 1897

Guánica

[2]	Name on the Register	Image	Date listed ^[3]	Location	Barrio	Description
1	Faro de Guanica ^[f]		March 28, 1977 (#77001549 (https://npgallery.nps.gov/AssetDetail/NRIS/77001549))	Highway 333 17°57'03"N 66°54'11"W	Carenero	This disused and ruined lighthouse was built by Spanish authorities in 1893 in a style reminiscent of plantation great houses. It marked the entrance to Guánica Bay, the most important harbor on the southern side of the island from early colonial times through the Spanish–American War in 1898. ^[10]
2	James Garfield Graded School		May 26, 2015 (#15000275 (https://npgallery.nps.gov/AssetDetail/NRIS/15000275))	65 de Infanteria Street 17°58'23"N 66°54'31"W	Guánica Pueblo	
3	Hacienda Santa Rita		January 5, 1984 (#84003147 (https://npgallery.nps.gov/AssetDetail/NRIS/84003147))	Highway 116R, km 32.7 18°00'27"N 66°53'03"W	Susúa Baja	
4	Yauco Battle Site		September 2, 2008 (#00001383 (https://npgallery.nps.gov/AssetDetail/NRIS/00001383))	Roughly bounded by Hacienda Santa Rita, Highways 389, 116R, 116, Loco River, and Seboruco Scarp 18°00'03"N 66°53'16"W	Susúa Baja	Site of the Battle of Yauco in 1898, in the Spanish–American War. See Puerto Rico Campaign. The Battle field was located at the time in Yauco, however the site became part of modern day Guanica after the founding of the municipality.

Hormigueros

See also

- National Register of Historic Places listings in Puerto Rico
- Historic preservation
- History of Puerto Rico
- National Register of Historic Places listings in southern Puerto Rico
- National Register of Historic Places listings in northern Puerto Rico
- National Register of Historic Places listings in eastern Puerto Rico
- National Register of Historic Places listings in central Puerto Rico
- National Register of Historic Places listings in San Juan, Puerto Rico

Notes

- a. Sources authoritative with regard to National Register listing parameters give different forms of the fort's name, including *Fuerte de la Concepcion* from the fort's nomination form,^[4] *Fuerte de la Concepcion* from the official weekly announcement of National Register actions,^[5] and *Fuerte de la Concepcion* from the comprehensive National Register database.^[6] This article adopts the first of these, *Fuerte de la Concepción*, because it offers the most proper Spanish orthography.
- b. The name of the Residence Lopez is presented here using word order and without the **accent** on "Lopez" in conformance with the usage in the house's National Register nomination form^[7] and announcement of listing.^[8]
- c. The Puente de Anasco spans the boundary between **Añasco** (Barrio Añasco Arriba) and **Mayagüez** (Barrio Sabanetas) municipalities.
- d. Federal and state laws and practices restrict general public access to information regarding the specific location of this resource. In some cases, this is to protect **archeological sites** from vandalism, while in other cases it is restricted at the request of the owner.
- e. The Silva Bridge spans the boundary between **Hormigueros** (Barrio Guanajibo) and **Cabo Rojo** (Barrio Guanajibo) municipalities.
- f. The name of the Faro de Guanica is presented here without the **accent** on "Guanica" in conformance with the usage in the light's National Register nomination form^[10] and **Federal Register** announcement of listing.^[11]
- g. The name of the Torrens Bridge is presented here without the **accent** on "Torrens" in conformance with the usage in the bridge's National Register nomination form^[12] and announcement of listing.^[13]
- h. The name of the Casa Consistorial De Mayaguez is presented here with a capital D and without the **diacesis** on "Mayaguez" in conformance with the usage in the building's National Register nomination form^[14] and announcement of listing.^[15]
- i. The name of the Edificio Jose de Diego is presented here without the **accent** on "Jose" in conformance with the usage in the building's National Register nomination form^[17] and **Federal Register** announcement of listing.^[11]
- j. The name of the Gomez Residencia is presented here using word order that conforms to the usage in the house's National Register announcement of listing^[18] and subsequent database entries.^{[19][20]} The **accent** is omitted from "Gomez" in conformance with both of those sources as well as the house's National Register nomination form.^[21]

- k. The name of La Casa Solariega de Jose De Diego is presented here with a capital D in the second "de" and without the **accent** on "Jose" in conformance with the usage in the house's National Register nomination form^[22] and announcement of listing ^[23]
- l. The name of the Nazario Rivera Residencia is presented here using word order (name preceding "*Residencia*") that conforms to the usage in the house's National Register announcement of listing^[24] and subsequent database entries. ^{[19][25]}
- m. The name of the Plaza Publica is presented here without the **accent** on "Publica" in conformance with the usage in the plaza's National Register nomination form^[26] and announcement of listing ^[15]
- n. The name of the Ramirez Fuentes Residencia is presented here using word order (name preceding "*Residencia*") that conforms to the usage in the house's National Register announcement of listing^[27] and subsequent database entries. ^{[19][28]} Also note that while the announcement and databases treat *Ramirez* as a forename and *Fuentes* as a surname and omit the **accent** from *Ramirez*, the house's National Register nomination form treats *Ramirez Fuentes*, including the accent, as a compound surname (section 9 mentions "Mrs. Mirta Ramirez de Fuentes") ^[29] for these purposes, this article adopts the nomination's usage.
- o. The name of the Residencia Ramirez De Arellano en Guanajibo is presented here with a capital D and without the **accent** on "Ramirez" in conformance with the usage in the house's National Register nomination form^[30] and announcement of listing ^[31]
- p. The name of the Teatro Yaguez is presented here without the **diaresis** on "Yagüez" in conformance with the usage in the theater's National Register nomination form^[32] and announcement of listing. ^[15]
- q. The name of the Berta Sepulveda House is presented here without the **accent** on "Sepúlveda" in conformance with the usage in the house's National Register nomination form^[33] and announcement of listing ^[34]
- r. The name of the Jaime Acosta y Fores Residence is presented here without the **accent** on "Fores" in conformance with the usage in the house's National Register nomination form^[35] and announcement of listing ^[36]
- s. The Alcantarilla Pluvial sobre la Quebrada Manzanares is a linear resource; the coordinates given represent the approximate midpoint of the line.
- t. The name of the Casa de los Ponce de Leon is presented here without the **accent** on "Leon" in conformance with the usage in the house's National Register nomination form^[37] and announcement of listing ^[38]
- u. The name of Hacienda Buena Union is presented here without the **accent** on "Union" in conformance with the usage in the hacienda's National Register nomination form^[39] and announcement of listing. ^[40]
- v. A minor portion of the San Germán Historic District extends into Barrio Sabana Grande Abajo.

References


1. "National Register of Historic Places: Weekly List Actions" (<https://www.nps.gov/subjects/nationalregister/weekly-list.htm>) National Park Service, United States Department of the Interior Retrieved on November 8, 2019.
2. Numbers represent an ordering by significant words. Various colorings, defined [here](#) differentiate National Historic Landmarks and historic districts from other NRHP buildings, structures, sites or objects.
3. The eight-digit number below each date is the number assigned to each location in the National Register Information System database, which can be viewed by clicking the number.

4. Del Campo, Félix Julián; Acevedo, Joaquín (January 1986). *National Register of Historic Places Inventory — Nomination Form: Fuerte de la Concepción (Conception Fort)* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/86000703_text) (PDF), retrieved January 18, 2016.
5. National Park Service (April 18, 1986). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1986.pdf) (PDF), p. 48, retrieved January 18, 2016.
6. National Park Service (n.d.). "Fuerte de la Concepción" (<http://focus.nps.gov/AssetDetail/NRIS/86000703>). *NPS Focus*. retrieved February 25, 2016.
7. Bourdony, José R. (August 30, 1984). *National Register of Historic Places Inventory — Nomination Form: Residence Lopez* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/85000043_text) (PDF), retrieved February 4, 2016.
8. National Park Service (January 11, 1985). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1985.pdf) (PDF), p. 4, retrieved February 4, 2016.
9. Knoeri, John; Miller, Diane; Shrimpton, Rebecca H. (1990). *Guidelines for Restricting Information about Historic and Prehistoric Resources* (<https://archive.org/details/guidelinesforres00knoe>). National Register Bulletin, National Park Service, U.S. Department of the Interior. OCLC 20706997 (<https://www.worldcat.org/oclc/20706997>)
10. Tarr, J. A. (August 1976). *National Register of Historic Places Inventory — Nomination Form: Faro de Guanica (Lighthouse)* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/77001549_text) (PDF), retrieved January 18, 2016.
11. "Department of the Interior, Heritage Conservation and Recreation Service: National Register of Historic Places: Annual Listing of Historic Properties". 44 FR 7416 (<https://www.loc.gov/item/fr044026/>) (February 6, 1979), at p. 7581.
12. Albino Plugues, Edwin; Marull, José E.; Tosteson, Hugh (January 31, 2000). *National Register of Historic Places Registration Form: Torrens Bridge* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/00000423_text) (PDF), retrieved February 3, 2016.
13. National Park Service (February 19, 2000). *Weekly List of Actions Taken on Properties: 5/08/00 through 5/12/00* (<http://www.nps.gov/nr/listings/20000519.htm>). archived (<https://web.archive.org/web/20150403044204/http://www.nps.gov/nr/listings/20000519.htm>) from the original on April 3, 2015, retrieved February 3, 2016.
14. Bermúdez, Manuel; Del Cueto de Pantel, Beatriz (September 1984). *National Register of Historic Places Inventory — Nomination Form: Casa Consistorial De Mayaguez* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/85003046_text) (PDF), retrieved January 26, 2016.
15. National Park Service (December 13, 1985). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1985.pdf) (PDF), p. 179–180, retrieved January 26, 2016.
16. <https://catalog.archives.gov/id/131518542> (<https://catalog.archives.gov/id/131518542>) Retrieved 22 July 2019. Missing or empty |title= (help)
17. Tarr, A. (1977). *National Register of Historic Places Inventory — Nomination Form: Edificio Jose de Diego* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/77001553_text) (PDF), retrieved January 27, 2016.
18. National Park Service (June 24, 1988). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1988.pdf) (PDF), p. 72, retrieved November 17, 2015.
19. "National Register Information System" (http://nrhp.focus.nps.gov/natreg/docs/All_Data.html) *National Register of Historic Places* National Park Service. March 13, 2009.
20. National Park Service (n.d.). "Gomez Residencia" (<http://focus.nps.gov/AssetDetail/NRIS/88000656>). *NPS Focus*. retrieved November 17, 2015.

21. Del Campo, Félix Julián; Ortiz, Jorge (December 10, 1987). *National Register of Historic Places Registration Form: Residencia Gomez* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/88000656_text) (PDF), retrieved November 17, 2015.
22. Rigau, Jorge (September 1985). *National Register of Historic Places Inventory — Nomination Form: La Casa Solariega de Jose De Diego* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/86000624_text) (PDF), retrieved January 27, 2016.
23. National Park Service (April 11, 1986). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1986.pdf) (PDF), p. 43, retrieved January 26, 2016.
24. National Park Service (September 23, 1988). *Weekly List of Listed Properties: 9/12/88 through 9/16/88* (http://www.nps.gov/nr/listings/Weekly_Register_List_1988.pdf) (PDF), p. 144, retrieved January 28, 2016.
25. National Park Service (n.d.). "Rivera, Nazario, Residencia" (<http://focus.nps.gov/AssetDetail/NRIS/88000686>). *NPS Focus*, retrieved January 28, 2016.
26. Colegio de Arquitectos de Puerto Rico (September 1984). *National Register of Historic Places Inventory — Nomination Form: Plaza Publica* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/85003085_text) (PDF), retrieved January 26, 2016.
27. National Park Service (July 22, 1988). *Weekly List of Listed Properties: 7/11/88 through 7/15/88* (http://www.nps.gov/nr/listings/Weekly_Register_List_1988.pdf) (PDF), p. 95, retrieved January 29, 2016.
28. National Park Service (n.d.). "Fuentes, Ramirez, Residencia" (<http://focus.nps.gov/AssetDetail/NRIS/88000965>). *NPS Focus*, retrieved January 29, 2016.
29. Rigau, Jorge; Bermudez, Manuel; Del Cueto, Beatriz (December 1987). *National Register of Historic Places Registration Form: Residencia Ramirez Fuentes* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/88000965_text) (PDF), retrieved January 29, 2016.
30. Ramirez, José; Del Cueto de Pantel, Beatriz (September 1984). *National Register of Historic Places Inventory — Nomination Form: Residencia Ramirez De Arellano en Guanajibo* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/86003192_text) (PDF), retrieved January 27, 2016.
31. National Park Service (February 13, 1987). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1987.pdf) (PDF), p. 17, retrieved January 27, 2016.
32. Cardalda, Cristina; Torres, Olga; Rigau, Jorge (September 1984). *National Register of Historic Places Inventory — Nomination Form: Teatro Yaguez* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/85003086_text) (PDF), retrieved January 26, 2016.
33. Marull, José E.; Crespo, Rafael (January 28, 1994). *National Register of Historic Places Registration Form: Berta Sepulveda Residence* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/94000624_text) (PDF), retrieved February 3, 2016.
34. National Park Service (June 24, 1994). *Weekly List of Actions Taken on Properties: 6/13/94 through 6/17/94* (http://www.nps.gov/nr/listings/Weekly_Register_List_1994.pdf) (PDF), p. 34, retrieved February 3, 2016.
35. Santiago Cazull, Héctor F. (October 19, 1989). *National Register of Historic Places Registration Form: Jaime Acosta y Fores Residence* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/90000767_text) (PDF), retrieved February 3, 2016.
36. National Park Service (June 1, 1990). *Weekly List of Listed Properties: 5/21/90 through 5/25/90* (http://www.nps.gov/nr/listings/Weekly_Register_List_1990.pdf) (PDF), p. 52, retrieved February 3, 2016.
37. Tió, Aurelio (January 4, 1983). *National Register of Historic Places Inventory — Nomination Form: Casa de los Ponce de Leon* (https://npgallery.nps.gov/NRHP/GetAsset/NRHP/83002295_text) (PDF), retrieved February 2, 2016.

38. National Park Service (March 15, 1983). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1983.pdf) (PDF), p. 51, retrieved February 2, 2016.
39. Muratti Martinez, Víctor; Pumarada O'Neill, Luis (February 24, 1983). *National Register of Historic Places Inventory — Nomination Form: Hacienda Buena Unión* (<http://www2.pr.gov/oech/oech/Documents/Propiedades%20en%20el%20Registro%20Nacional/San%20Germ%C3%A1n/Hacienda%20Buena%20Uni%C3%B3n.pdf>) (redacted PDF), retrieved February 3, 2016.
40. National Park Service (August 30, 1983). *Weekly announcement of National Register of Historic Places actions* (http://www.nps.gov/nr/listings/Weekly_Register_List_1983.pdf) (PDF), p. 132, retrieved February 3, 2016.
41. Oficina Estatal de Conservación Histórica (April 1, 2014). *Hacienda Buena Unión – Trapiche del Guamá – Hacienda Acosta* (<http://www2.pr.gov/oech/oech/RegistroNacional/Documents/Fichas%20RNLH%20Santillana/Hacienda%20Buena%20Uni%C3%B3n.pdf>) (PDF) (summary sheet), retrieved February 3, 2016.
42. Oficina Estatal de Conservación Histórica (n.d.). *Puerto Rico: Registro Nacional de Lugares Históricos* (<http://arcg.is/1kaB1IT>) [*Puerto Rico: National Register of Historic Places*] (online GIS), retrieved February 3, 2016.

External links

- Puerto Rico State Historic Preservation Office, National Register of Historic Places site (<http://www2.pr.gov/oech/oech/RegistroNacional/Pages/%C2%BFQu%C3%A9eselRegistroNacional.aspx>)
 - National Park Service, National Register of Historic Places site (<http://www.nps.gov/nr/>)
 -  Media related to National Register of Historic Places in Puerto Rico at Wikimedia Commons
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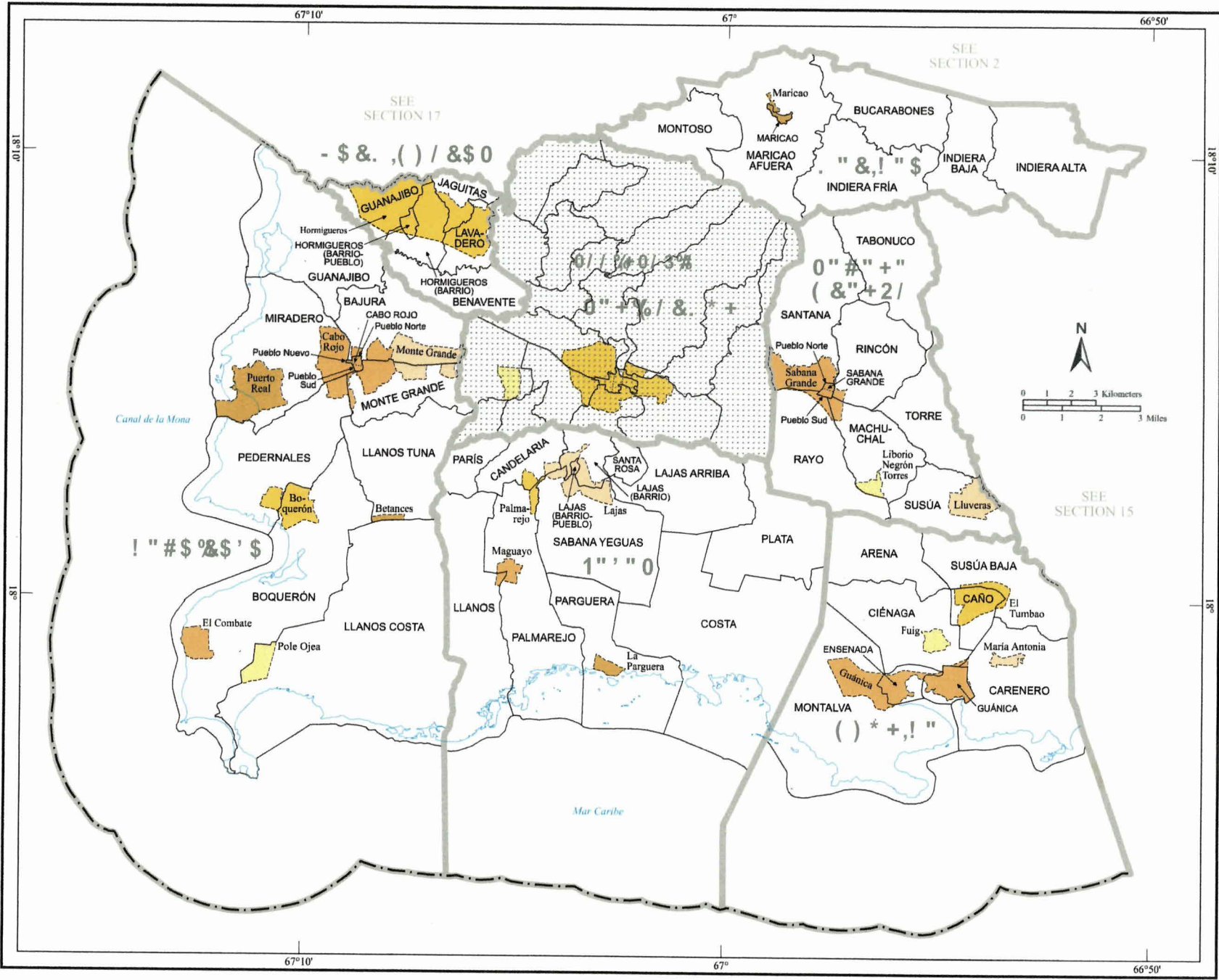
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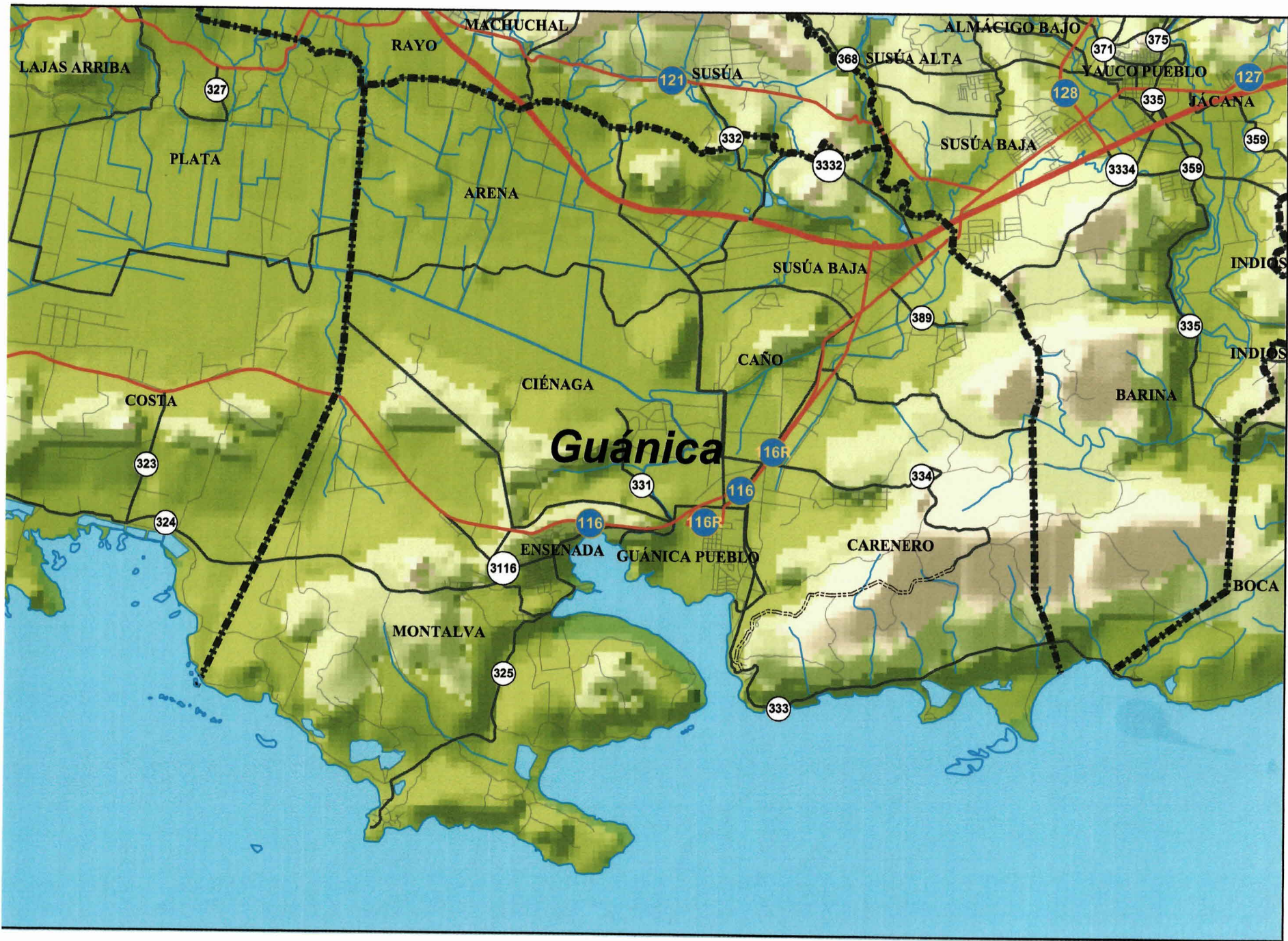
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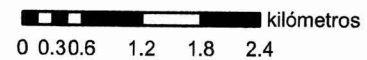
United States Environmental Protection Agency
National Pollutant Discharge Elimination System
Notice of Intent (NOI) for coverage under the Small Municipal Separate
Storm Sewer System (MS4) General Permit (PRR040000) for Puerto Rico

Appendix C





Municipio de Guánica



You are here: [Home \(/\)](#) [U.S. \(/country/united-states/00/\)](#) [Puerto Rico \(/state/puerto-rico/72/\)](#) Guanica, PR

Guanica Zona Urbana, Puerto Rico

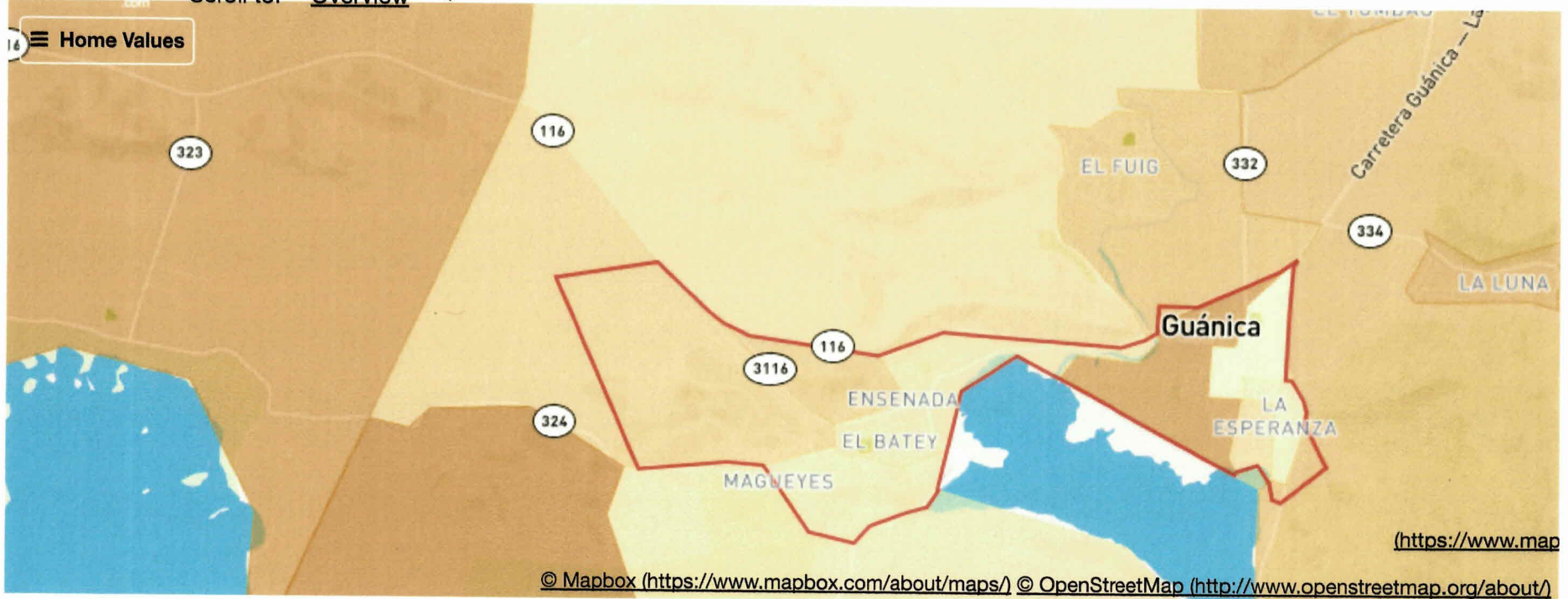
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