GOBIERNO MUNICIPAL DE ISABELA

NOTICE OF INTENT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE II, REGULATED SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4's)

INDIVIDUAL PERMIT

MUNICIPALITY OF ISABELA

EPA REGION 2 PUERTO RICO

PREPARED BY
ECOSTAHLIA CONSULTORES AMBIENTALES
SAN JUAN, PUERTO RICO

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 Isabela
2. Type: ◯ Federal ◯ State ● Municipality ◯ Other: _____
3. Existing Permittee: ● Yes ◯ No If yes, provide EPA NPDES Permit Number: P R R 0 4 0 0 6 3
4. Location Address:
   a. Street: Calle Manuel Corchado #75
   b. City: Isabela State: PR Zip Code: 00662
5. Mailing Address:
   a. Street: : P.O. Box 507
   b. City: Isabela State: PR Zip Code: 00662
6. Telephone Number: 787-830-1519 Fax: _____
7. E-mail: monitoria@isabela.com.pr
8. Standard Industrial Classification (SIC) Code (see instructions for common codes): 9199
9. Latitude: (use the format provided.) Longitude: (use the format provided.)
   2.2.4.2 Approximate *center of the regulated portion of the MS4.*

   18.501342 ° N (degrees decimal) -67.021719° W (degrees decimal)

Part B. Primary MS4 Program Manager Contact Information

1. Name: Germán Varela
2. Position Title: Environmental Monitor
3. Stormwater Management Program (SWMP) Location (web address or physical location):

   https://www.facebook.com/municipioisabela/posts/10154720601682529
   and/or Calle Los Rotarios Edificio Policía Municipal y Oficina Manejo de Emergencias
4. Mailing Address:
   a. Street: P.O. Box 507
   b. City: Isabela State: PR Zip Code: 00662

5. Telephone Number: 787-830-1519

6. E-mail: monitoria@isabela.com.pr

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 ○ F

2. National Historic Preservation Act (NHPA) determination complete? ● Yes ○ No
   a. Eligibility Criteria (check all that apply):○ A ● B ○ C ○ D

Part D. Map/Boundaries

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

Isabela is located in the northwest coast of Puerto Rico at latitude 18° 30' 47" N and longitude 67°12" W. The town have borders with Quebradillas and the Guajataca River to the East; Moca, San Sebastián and Lake Guajataca to the South, with the Atlantic Ocean to the North, and Los Cedros Creek and Aguadilla to the West. It has a territorial extension of 92 square miles. It is spread over 14 wards:

- Arenales Altos
- Arenales Bajos
- Bajuras
- Coto
- Galateo Alto
- Galateo Bajo
- Guayabos
- Pueblo
- Jobos
- Guerrero
- Llanadas
- Mora
- Planas
- Pueblo

Isabela is about a one and a half (1.5) hour drive west of San Juan. According to the Census 2010, the municipality has a population of 45,631 inhabitants. The town is surrounded by agricultural lands, the ocean and the Karstic Zone. Due its location and geography, Isabela doesn't have streams or rivers. The municipality is surrounded by Northern Karstic Region. The presence of limestone increases the existence of sinkholes and caves across town. Geographically, the municipality of Isabela belongs to the Northern Coastal Plains. Running through the south, the Aymamón Mountains, a prolongation of the Jaicoa Mountain Range that begins in the neighboring town of Aguadilla, boasts peaks of over 1,000 ft. (300 m) above sea level. The most prominent hills that are part of these mountains are La Bandera (Galateo Alto ward) at 368 meters (1,207 ft.); La Silla (Arenales Alto ward) at 337 meters (1,106 ft.); El Sombrero (in Galateo Alto) at 330 meters (1,083 ft.); Indio (Planas ward)) at 310 meters (1,017 ft); and Monte Encantado (in Arenales Altos) at 280 meters (919 ft.) of elevation above sea level. The central part of the territory, which consists mostly of flatlands, the mountains does not surpass 200 meters (656 ft.) of height; the coastline flats (Bajuras), is slightly above sea level.

The Municipality of Isabela Storm Sewer System (MS4s) in the urban area in general consists of a series of open channel culverts, typically located within the right-of-way of municipal and state roads, interconnected also in many areas by underground concrete or corrugated steel pipes which normally discharge into sinkholes and the Atlantic Ocean. The Urban Area of the Isabela is located west of the Guajataca River. This watershed covers the northern sides of the urban area; it is located between the PR-Road #2 and south of Jobos Beach. During rain events, runoff discharge into creeks that cross downtown and into the open intermittent creeks. Some areas within downtown Isabela contain illegal discharges that drain into the storm sewer system. Those illegal discharges are located within low income communities around the Isabela downtown. The Isabela' urban zone is located north of PR-Road #2. It includes its traditional urban center (Pueblo Ward). The municipal urban area has a population of 4,091 approximately. The municipality has a territorial extension of 92 square miles of which 10 square miles is classified as urban area.

One of the main hydrologic features in the zone is the presence of a man-made irrigation canal known as the Isabela Irrigation Canal (IIC) completed in 1928 by the former Puerto Rico Fluvial Power Authority and now operated by the Puerto

Electric Power Authority (PREPA). Water flows to the north by gravity from the Guajataca reservoir though a system of canals and regulating lagoons. In Isabela the canal divides into the Moca irrigation canal and the Isabela-Aguadilla canal. The canal provides much needed water for agricultural uses in the zone since there are no significant rivers or considerable groundwater sources for extraction. Also, the canal is a main source for potable water and feeds several water filtration plants in the zone operated by the Puerto Rico Aqueduct and Sewer Authority (PRASA). The system operates independent from any other system and the MS4 does not discharge into the canal system (Canal Principal de Diversión, Lateral Channels or the Damn).

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.

   Is map attached? ● Yes ○ No

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

1. Estimated Percent of Outfall Map Complete? (*Section 4.2.3 of 2006 general permit*): 70 %
   a. If 100% of 2006 requirements are not met, enter an estimated date of completion: 12-31-2017 (MM/DD/YYYY)
   b. Web address where MS4 map is published: (Included)
      If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission.

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

1. Illicit Discharge Detection and Elimination (IDDE) authority adopted? ○ Yes ● No
   a. Effective Date or Estimated Date of Adoption: 03/30/2017 (MM/DD/YYYY)
2. Construction/Erosion and Sediment Control authority adopted? ○ Yes ● No
   a. Effective Date or Estimated Date of Adoption: 04/30/2017 (MM/DD/YYYY)
3. Post-Construction Stormwater Management adopted? ○ Yes ● No
   a. Effective Date or Estimated Date of Adoption: 0430/2017 (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.

Updated the information to the PR EQB 2016 Draft 303D List.

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)
Punta Sardina to Punta Manglillo Shoreline (PRNC02)	4	No	Turbidity (2500) pH (1000)	N/A

Quebrada Las Sequias (PRNQ3B) Not inside the urban zone.	1	No	Segment not present in the 2016 list.	Fecal coliforms
Quebrada los Cedros (PRNQ1A) Not inside the urban zone.	1	No	Segment not present in the 2016 list.	Fecal coliforms
Río Guajataca (PRNR3A1) Not inside the urban zone.	1	No	Fecal coliforms (1700) Low dissolve oxygen (1200) Total Nitrogen (0920	Fecal coliforms

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 & Outreach				
Prepare and distribute stormwater education materials for citizens	Yes	Yes	General public. The Municipality developed a series of brochures aimed to the general public, and restaurant operators. Over 300 were distributed.	Continue with the same goals.
Prepare and distribute education materials for citizens on managing household hazardous waste	No	Yes	General Public. Due to funding prioritization, the first series of educational materials were aimed at the use of grey waters and illegal discharges.	Continue with the same goal.
Prepare trash management educational material	No	Yes	General Public. Due to funding prioritization, the first series of educational materials were aimed at the use of grey waters and illegal discharges.	Continue with the same goal.
Prepare education/outreach material for commercial activities	Yes	Yes	Business. The Municipality developed a series of brochures aimed to the general public, and restaurant operators. Over 300 were distributed.	Continue with the same goals.
Prepare classroom education on storm water pollution management	Yes	Yes	An ongoing effort. It will continue during the next cycle.	No changes.
MCM-2 Public Involvement & Participation				
Establish a NPDES storm water steering committee	No	Yes	Difficulty in recruiting volunteers for a permanent steering committee.	No changes. It will be completed during the first semester of 2017.
Hold public meetings to receive input on the proposed program	No	Yes	The program started as result from an Administrative Order issued by the USEPA	No changes. It will be completed during the first semester of 2017.

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-3 Illicit Discharge Detection and Elimination Program				
Storm drain system map	No	Yes	Municipal Planners and Managers. The lack of funding only allowed the Municipality to complete ¼ of the total area.	No changes for the next cycle. It will be completed during the next cycle.
Identify illicit connections through dry water screening	Yes	Yes	The program was completed for the urban area of Isabela. Still pending areas out of the urban centre.	No changes for the next cycle. It will be completed during the next cycle.
Illicit discharge/illegal dumping hotline	Yes	Yes	An ongoing process thru the municipal hotline for customer service.	No changes for the next cycle. It will be completed during the next cycle.

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-4 Construction Site Storm Water Runoff Control				
Request erosion and sediment control plans for projects with land disturbances	Yes	Yes	Contractors and Developers. An ongoing process.	No changes for the next cycle. It will be completed during the next cycle.
Request the use of appropriate perimeter controls	Yes	Yes	It is part of the permitting process within the Municipality.	No changes for the next cycle. It will be completed during the next cycle.
Develop an educational program for contractors	No	No	Lack of funding and projects being proposed in the area.	The Municipality will propose a different approach to work with developers and contractors.
MCM-5 Post Construction and Re-Development Storm Water Program				

Develop a program for maintenance of structural storm water controls	No	Yes	Lack of funding. The Municipality depend on developers for the implementation of this task.	No changes. The Municipality will look for funding to complete this task.
Develop and implement a storm water ordinance and guidance that includes standards to control runoff impacts	No	Yes	The lack of funding to complete the task.	A contractor will help in the development of the ordinance and its implementation.
MCM-6 Pollution Prevention and Good Housekeeping				
Training program for grounds maintenance and landscaping crews	Yes	Yes	Municipal employees. Municipal employees have received training on BMPs.	The Municipality will continue with this task in the new cycle.
Develop spill prevention and control plans for municipal facilities	Yes	Yes	The Municipality developed a SOP for Municipal Operations.	The Municipality will continue with the implementation of the SOP.

Part I. 2016 Stormwater Management Program (SWMP) Summary

Public Education and Outreach (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.)
BMP-1 Storm Drain Stenciling Program	Non-Point Sources and Illegal Discharges	Storm Drains Stenciling	Number of storm water inlets painted and volunteers participating. The target is to have a minimum of 30 drains marked on yearly basis.
BMP-2 Annual Cleanup	Non-Point Sources	Volunteer and residents' participation	Number of tons of debris and recyclables collected during the cleanup events. The target is to collect 1 ton per year but to reduce the amount based in the success of the program.
BMP-3 Public Education Program	Illegal Discharges, Non-Point Sources and Erosion Control	Public Meetings, School Lectures	Number of residents attending the events. To target 200 students every year city-wide.
BMP-4 Community Hotline	Illegal Discharges and Non-Point Sources	Thru the general outreach activities, the Municipality encourages the use of the hotline to address the problems.	Number of calls and referrals to correct illegal discharges and non-point sources of pollution.
BMP-5 Social Media Education Campaign	Illegal Discharges, Non-Point Sources and Erosion Control	Posting of educational clips and messages in Facebook, Twitter, Instagram and Snapchat	Number of messages distributed, shared and viewed on a weekly basis.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)
Public Involvement and Participation (See Section 2.4.3 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1)	**Program Description (Describe the program and how it will inspire public participation, e.g. special events, volunteer sampling and monitoring efforts, household hazardous waste recycling, etc.)**	**Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., participation, amount of sampling performed, waste collected, etc.)**
BMP-1 Storm Sewer System Map	Then Municipality is required to develop an inventory of all municipal stormwater infrastructure.	Create a map inventory of all the stormwater infrastructure in the urban area of the Municipality.
BMP-2 Implement Regulations to Enforce Non-Storm Discharges	The Municipality will start train its employees and implement the approved ordinance throughout its territory.	It is expected to start in the first semester of 2017. Reduction in illicit discharges and connections.
BMP-3 Meet with Local Community Groups and Organizations to Involve them in Stormwater Efforts	The Municipality propose the use of public meetings through the community as a mean to request their involvement in the efforts coordinated by the administration.	The number of volunteers and the total number of communities covered during the public meetings.
BMP-3 Develop and conduct periodical focus groups to discuss the current issues related to pollution from storm-waters	The Municipality propose the use of focus groups through the community as a mean to request their involvement in the efforts coordinated by the administration.	The number of volunteers participating during the focus groups and the number of issues identified and fixed.
BMP-4 Conduct Public Hearings to address Stormwater issues	The Municipality propose conducting a yearly Public Hearing to address the most pressing issues related to pollution from Stormwater runoff.	The number of participants and issues identified and resolved as a result from the Public Hearing.

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)	**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.)**
BMP-1 Prepare and implement an ordinance targeting illegal discharges at the storm sewer system	The Municipality propose to present a local ordinance and the necessary regulation targeting illegal discharges into the storm sewer system.	The number of discharges identified and corrected on a yearly basis.
BMP-2 Adopt a Stream Program	The Municipality propose the development of an adoption program with local partners aimed to target one of the water bodies located within the urban area of Isabela.	The number of streams or meters adopted and the improvement of the surface water quality of the streams.
BMP-3 MS4Web Permit Manager Tool	Isabela propose the use of the MS4Web Permit Manager as a mean to provide local residents and municipal managers with an internet based tool to access data on illegal discharges and all storm water outfalls in the city and how to address the issue of illegal discharges.	Number of residents and local managers using the Internet-based tool.
BMP-4 Used Oil Recycling Program	The Municipality of Isabela will implement the Cease the Grease Program as part of the city-wide effort to reduce the illegal discharge of used cooking oil in the storm sewer system and surface water bodies.	The number of gallons of used cooking oil recycled city-wide
BMP-5 Basic Surface Water Quality Monitoring Project	A basic surface water quality monitoring program will be established in a selected stream using parameters like pH, Temperature and Fecal Coliforms	Data from streams will be compared to data obtained on a regular basis by the PR Environmental Quality Board

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)	**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.)**
BMP-1 Ordinance to control runoff from construction sites	The Municipality will prepare, approve and adopt an ordinance specifically targeting runoff from construction sites impacting the stormwater sewer system covered by the permit.	The number of interventions and sites corrected. 100% inspection rate city-wide.
BMP-2 Construction Sites Annual Inventory	Then Municipality is required to develop an inventory of all public and private construction projects. The local government propose the use of the MS4Web Permit Manager to create and maintain the inventory identifying all construction sites. The tool helps the local managers to update the information as needed. All documents associated with the projects will be added in PDF format during the inspections and will be ready available to the inspectors.	The number of projects identified and certified ion compliance with the permit.
BMP-3 Development of SOPs for Construction Permits.	The Municipality propose the development of a Construction SOP aimed to provide developers with new means to address regulation requirement and for inspectors to identify deficiencies during inspections.	Number of Projects city-wide visited and brought into compliance with local ordinance and USEPA regulations.
BMP-4 BMPs during construction Poster	The Municipality will prepare and distribute a poster aimed to contractors and construction projects with BMPs specifically design to reduce impacts to the stormwater runoff from construction activities.	A 100% coverage of active and permitted construction projects city-wide.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)
Post-Construction Stormwater Management in New Development and Redevelopment (See Section 2.4.6 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1)	**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.)**
BMP-1 Ordinance to control runoff pollution from post-construction projects	The Municipality will prepare, approve and adopt an ordinance specifically targeting runoff from post-construction projects impacting the stormwater sewer system covered by the permit.	The number of interventions and sites corrected. 100% inspection rate city-wide.
BMP-2 Standard Operating Procedures for Post-Construction Projects	The Municipality of Isabela propose to develop procedures to avoid runoff impacts to nearby surface waterbodies from stormwater controls located on completed construction projects. This will include impacts from retention ponds or non-covered areas prone to high rates of sedimentation.	Number of projects visited and certified in compliance with local ordinances and USEPA regulations.
BMP-3 Brochures	A series of brochures will be developed to be distributed among residents and managers of new and old housing and apartment projects city-wide aimed to educate them in good practices to avoid impacts to the existing stormwater infrastructure.	To distribute no less than 100 copies on a yearly basis.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)
Good Housekeeping and Pollution Prevention in Municipal Operations (See Section 2.4.7 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1)	**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.)**
BMP-1 Trainings for Municipal Employees	The Municipality will provide trainings on BMPs for mechanics, green-areas workers, painters, electricians, and clerical employees on how to address simple issues identified in the daily tasks of Municipal Operations. The trainings will cover oil, paint and fuel spills, emergency response, good housekeeping, material storage, and record keeping.	The Municipality will provide their employees with two (2) workshops/trainings every year addressing BMPs and their responsibility under the USEPA-NPDES Permit.
BMP-2 SOPs for Municipal Operations	The Municipality will develop and implement the required Standard Operation Procedures for all the operations and maintenance activities conducted daily at Municipal Public Works. The SOPs will cover all activities that may have an impact on the NPDES-MS4 permit.	Number of inspections completed and certified in compliance with local ordinances and USEPA regulations.
BMP-3 SOPs for Municipal Facilities	The Municipality will develop and implement the required SOP for the operation of municipal facilities including parks and open space maintenance, sidewalks, streets and roads; and auto yards.	Number of inspections completed and certified in compliance with local ordinances and USEPA regulations.
BMP-4 Webinars on Water Quality BMPs	The Municipality propose offering a webinar to municipal employees on simple BMPs designed to protect their surface water resources.	The number of participants and efforts developed by the employees after the webinar.

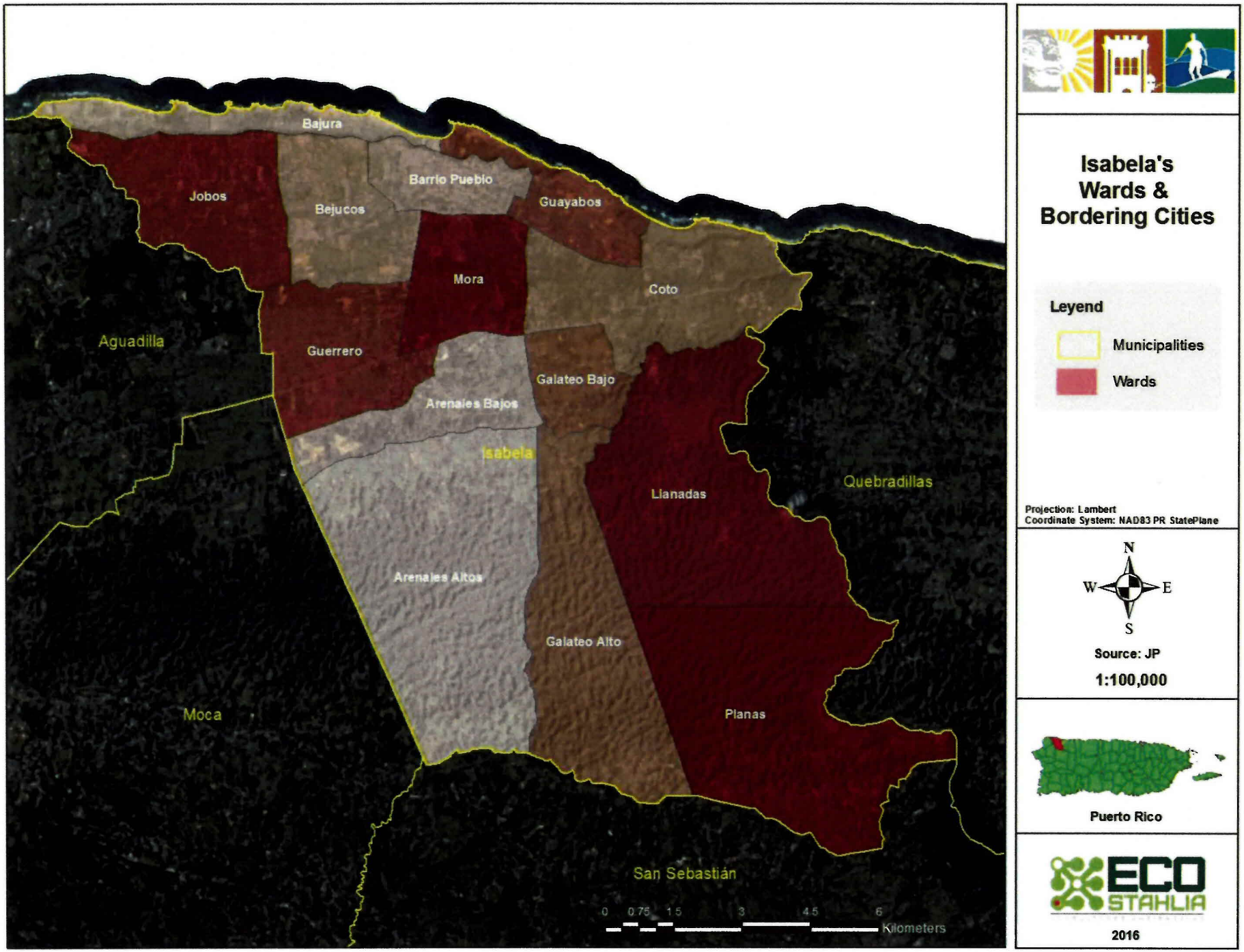
Part J. Application Certification and Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision i n 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: Carlos J. Delgado A.

Print Name of Mayor/Elected Official: Carlos Delgado Altieri

Title: MAYOR Date: 04-12-2017


Bajura
Jobos
Bejucos
Barrio Pueblo
Guayabos
Mora
Coto
Aguadilla
Guerrero
Galateo Bajo
Arenales Bajos
Isabela
Quebradillas
Llanadas
Arenales Altos
Galateo Alto
Moca
Planas
San Sebastián
0 0.75 1.5 3 4.5 6
Kilometers
Isabela's Wards & Bordering Cities
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Municipalities
Wards
Projection: Lambert
Coordinate System: NAD83 PR StatePlane
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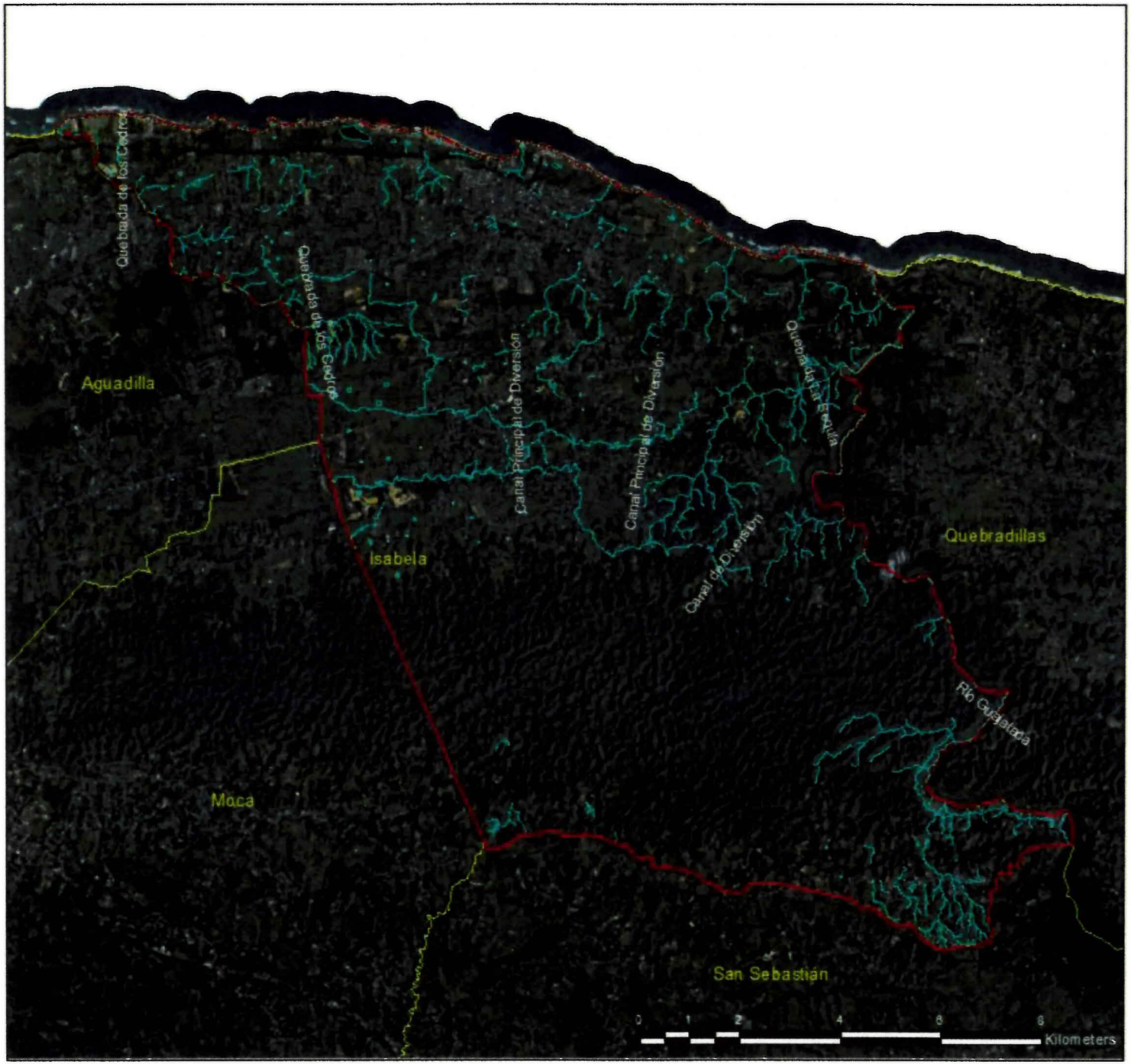
1:100,000
Puerto Rico
ECO STAHLIA
2016



Isabela's Hydrography

Leyend

- Hydrography
- Isabela
- Municipalities

Projection: Lambert
Coordinate System: NAD83 PR StatePlane

N
W E
S

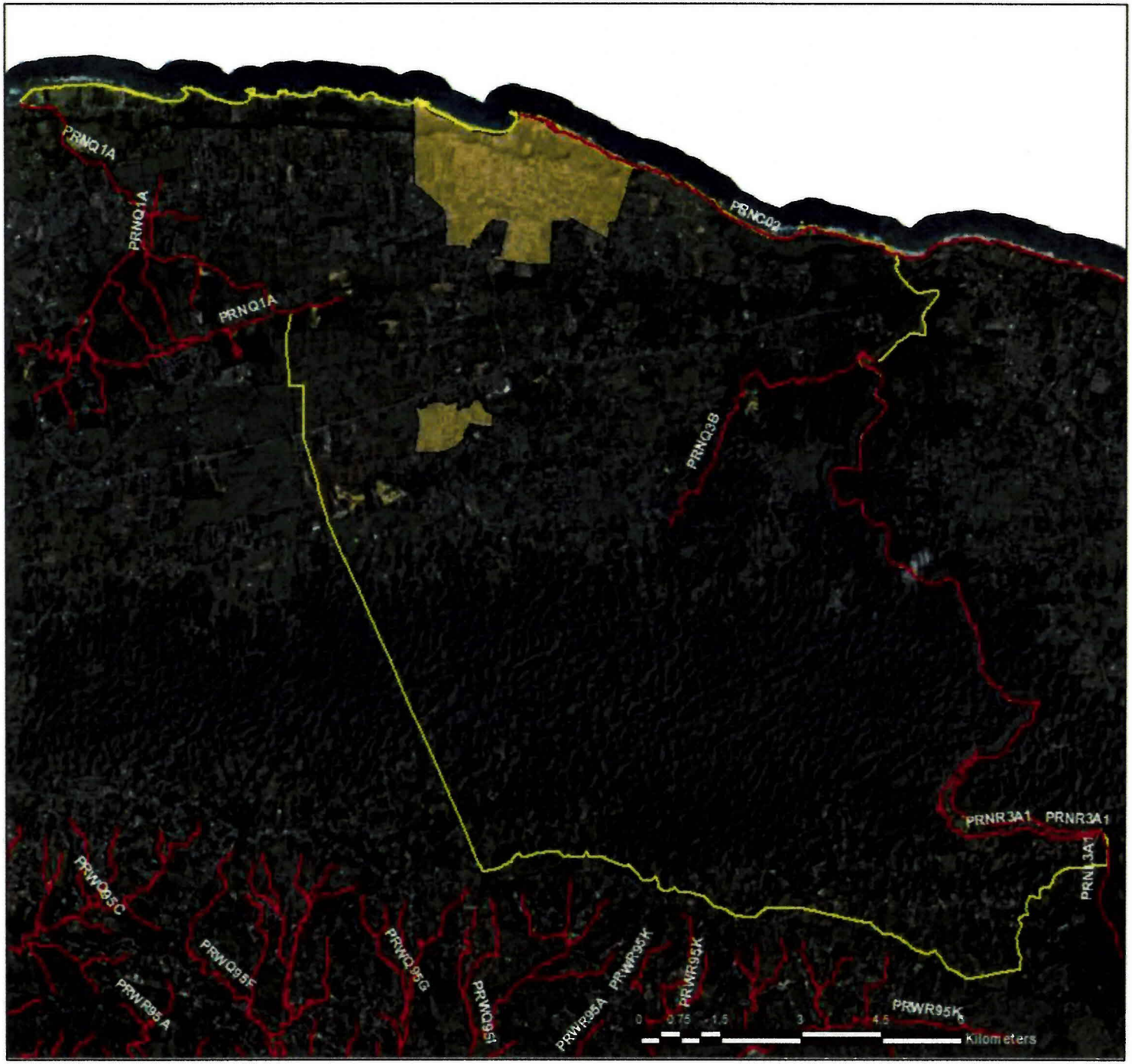
Source: JP

1:101,537

Puerto Rico

ECO STAHLIA

2016



U.S. EPA 303D List Water Body Segments

Legend
303d
Isabela
Urban Zone

Projection: Lambert
Coordinate system: NAD83 PR StatePlane

N
W E
S

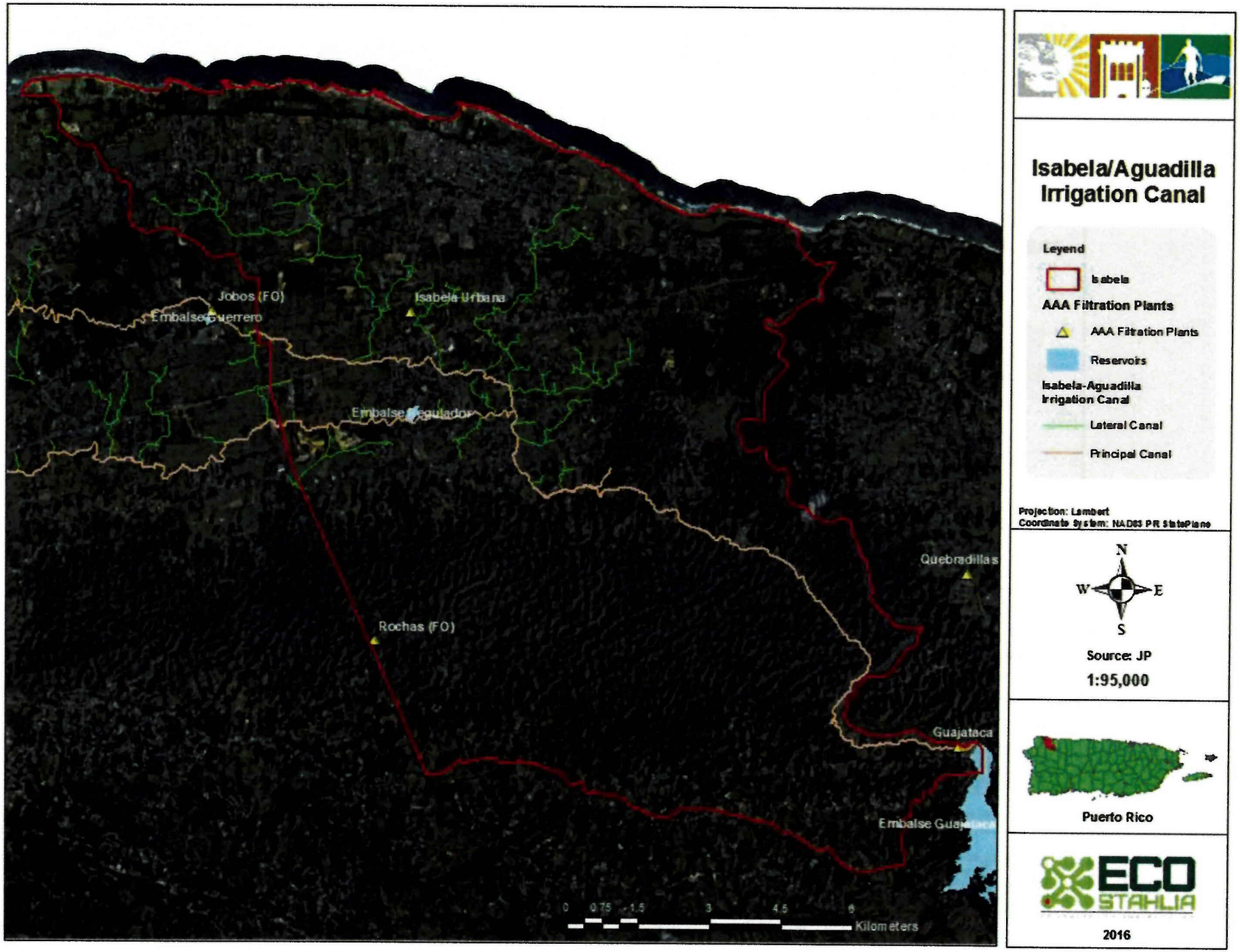
Source: JP, EPA, CENSUS

1:95,000

Puerto Rico

ECO STAHLIA

2016


Isabela/Aguadilla
Irrigation Canal
Leyend
Isabela
AAA Filtration Plants
AAA Filtration Plants
Reservoirs
Isabela-Aguadilla
Irrigation Canal
Lateral Canal
Principal Canal
Projection: Lambert
Coordinate System: NAD83 PR StatePlane
N
W
E
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Source: JP
1:95,000
Puerto Rico
ECO
STAHLIA
2016
Jobos (FO)
Embalse Guerrero
Isabela Urbana
Embalse Regulador
Rochas (FO)
Quebradillas
Guajataca
Embalse Guajataca
0 0.75 1.5 3 4.5 6
Kilometers

Isabela, PR

Census 2010 Urbanized Areas

Leyend

Urban Zones

Projection: Lambert
Coordinate System: NAD83 PR StatePlane

N
W E
S

Source: JP, Census, ESRI

1:50,000

Puerto Rico

ECO STAHLIA

2016


Isabela MS4
Infraestructure Map
Phase I
Legend:
Catch Basing
Grate Inlet
Manhole
Pipe
Sinkhole
Head Wall
Spot Elevation
Surface Water Flow Direction
Storm Sewer Pipes (Φ)
8
12
18
24
30
36
42
48
N
Mts
0 50 100 200
ECO
STAHLIA
LUIS BERRIOS MONTES
AGRIMENSOR
CONSULTOR

September 28, 2016

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

RE: LISTED ENDANGERED AND CRITICAL SPECIES CONSULTATION
Municipal Government of Isabela
P.O. Box 507
Isabela, P.R. 00662

Dear Mr. Muñiz:

On behalf of our client the Municipal Government of Isabela; EcoStahlia: Environmental Consultants is submitting to the Fish and Wildlife Service (FWS) Field Office a description of the Isabela'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.

Isabela is located in the northwest coast of Puerto Rico at latitude 18° 30' 47" N and longitude 67°12" W. The town have borders with Quebradillas and the Guajataca River to the East; Moca, San Sebastian and Lake Guajataca to the South, with the Atlantic Ocean to the North, and Los Cedros Creek and Aguadilla to the West. It has a territorial extension of 92 square miles. It is spread over 14 wards: Arenales Altos, Arenales Bajos, Bajuras, Coto, Galateo Alto, Galateo Bajo, Guayabos, Guerrero, Pueblo, Jobos, Llanadas, Mora and Planas.

Isabela is about a one and a half (1.5) hour drive west of San Juan. According to the Census 2010, the municipality has a population of 45,665 inhabitants. The town is surrounded by agricultural lands, the ocean and the Karstic Zone. Due its location and

geography, Isabela doesn't have streams or rivers. The municipality is surrounded by Northern Karstic Region. The presence of limestone increases the existence of sinkholes and caves across town. Geographically, the municipality of Isabela belongs to the Northern Coastal Plains. Running through the south, the Aymamón Mountains, a prolongation of the Jaicoa Mountain Range that begins in the neighboring town of Aguadilla, boasts peaks of over 1,000 ft (300 m) above sea level. The most prominent hills that are part of these mountains are La Bandera (Galateo Alto ward) at 368 meters (1,207 ft); La Silla (Arenales Alto ward) at 337 meters (1,106 ft); El Sombrero (in Galateo Alto) at 330 meters (1,083 ft); Indio (Planas ward)) at 310 meters (1,017 ft); and Monte Encantado (in Arenales Altos) at 280 meters (919 ft) of elevation above sea level. The central part of the territory, which consists mostly of flatlands, the mountains does not surpass 200 meters (656 ft) of height; the coastline flats (Bajuras), is slightly above sea level.

The Municipality of Isabela Storm Sewer System (MS4s) in the urban area in general consists of a series of open channel culverts, typically located within the right-of-way of municipal and state roads, interconnected also in many areas by underground concrete or corrugated steel pipes which normally discharge into sinkholes and the Atlantic Ocean. The Urban Area of the Isabela is located west of the Guajataca River. This watershed covers the northern sides of the urban area; it is located between the PR-Road #2 and south of Jobos Beach. During rain events, runoff discharge into creeks that cross downtown and into the open intermittent creeks. Some areas within downtown Isabela contain illegal discharges that drain into the storm sewer system. Those illegal discharges are located within low income communities around the Isabela downtown.

The Isabela' urban zone is located north of PR-Road #2. It includes its traditional urban center (Pueblo Ward). The municipal urban area has a population of 4,091 approximately. The municipality has a territorial extension of 92 square miles of which 10 square mile is classified as urban area. According to the United States Fish and Wildlife Service Caribbean Endangered Species Map, sixteen (16) species may live in or near the municipality of Isabela.

COMMON NAME	SCIENTIFIC NAME	GROUP
No common name	*Auerodendron pauciflorum*	Plant
Vax's Bpxwood	*Buxus vahlii*	Plant
Beautiful goetzea	*Goetzea elegans*	Plant
Leatherback Turtle	*Dermochelys coriacea*	Reptile
Puerto Rican Boa	*Epicrates Inornatus*	Reptile
No common name	*Daphnopsis hellerana*	Plant
Caretta caretta	*Loggerhead sea turtle*	Reptile
Chelonia mydas	*Green sea turtle*	Reptile
Virgin Islands Tree Boa	*Epicrates monensis granti*	Reptile
Hawksbill sea turtle	*Eretmochelys imbricata*	Reptile
No common name	*Eugenia haematocarpa*	Plant
No common name	*Ilex sintenisii*	Plant
No common name	*Myrcia paganii*	Plant
Brown Pelican	*Pelecanus occidentalis*	Bird
No common name	*Ottoschulzia rhodoxylon*	Plant
Puerto Rican Crested Toad	*Peltophryne lemur*	Amphibian
Wheeler's Peperomia	*Peperomia wheeleri*	Plant
No common name	*Schoepfia arenaria*	Plant
St. Thomas Prickly Ash	*Zanthoxylum thomasianum*	Plant
Antillean Manatee	*Trichechus manatus manatus*	Mammal

We would like to consult the FWS if these species or habitats are known to exist within the site. The Municipality of Isabela is taking all the necessary precautions to avoid any potential impacts from the stormwater system into potential habitats located within their boundaries. It is our understanding that discharges of stormwater from the Municipal MS4 System will not harm any species in the vicinity of the town of Isabela. Enclosed, please find the following documents:

1. Urbanized Areas Map
2. Wards Map
3. Hydrography Map

Our office is handling all issues concerning the MS4s/NPDES permit for the Municipality of Isabela. If you have any questions, or if you need more information, please do not hesitate to contact us via email at jvarocho@ecostahlia.com or pamy@ecostahlia.com, and/or by phone at 939.338.7044 or at 787.600.5250. I would like to thank you for your time and interest in this matter.

Sincerely,

Javier Vélez Arocho, Partner
Ecostahlia: Environmental Consultants