

June 25, 2021

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

Re: Administrative Compliance Order  
Failure to submit a Notice of Intent for coverage under the Small MS4 General permit  
Docket Number CWA-02-2021-3105  
NPDES ID: PRR040074

Dear Ms. Maclay:

On behalf of the Municipality of Villalba, we are pleased to submit for your prompt evaluation the Notice of Intent under the Small MS4 General Permit pursuant to Part 1.7 of the 2016 Small MS4 Permit.

TerraTek Engineering group, PSC was contracted by Global Consultas Asociados, which is the consulting agent for the Municipality for this matter.

We are also including the following certifications required on paragraph 62 of the above-mentioned order.

"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: \_\_\_\_\_  
Hon. Luis Javier Hernández Ortiz  
Municipality of Villalba Major

If you have any question or comments regarding this matter, please do not hessite to contact us at your convenience.

Respectfully,



Nivia I. Ayala, PE  
General Manager

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[axelsantiago1@hotmail.com](mailto:axelsantiago1@hotmail.com) , Municipality of Villalba



National Pollution Discharge Elimination System (NPDES) PHASE II, Small Municipal Separate  
Storm Sewer Systems

**MUNICIPAL MS4 NOTICE OF INTENT (NOI)**

PERMIT APPLICATION

NPDES General Permit for Storm Water Discharge

06/23/2021

**MUNICIPALITY OF VILLALBA**  
**HON. LUIS JAVIER HERNANDEZ ORTIZ**  
P.O Box 1506  
Villalba, PR 00766

Submitted to:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Caribbean Environmental Protection Division  
City View Plaza II – Suite 7000  
#48 Rd. 165 km 1.2  
Guaynabo, PR 00968-8069

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: Municipio de Villalba
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 7 4
4. Location Address:
  - a. Street: Carr 149R
  - b. City: Villalba State: PR Zip Code: 00766
5. Mailing Address:
  - a. Street: P.O. Box 1506
  - b. City: Villalba State: PR Zip Code: 00766
6. Telephone Number: 787-847-2500 Fax: 787-847-1528
7. E-mail: axelsantiago1@hotmail.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 8 . 0 7 , 3 0 " N (degrees, minutes, seconds) 6 6 ° 3 0 ' 0 0 " W (degrees, minutes, seconds)  
Or  
\_\_\_\_\_. \_\_\_\_\_ ° N (degrees decimal) \_\_\_\_\_ ° W (degrees decimal)

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

1. Name: Hon. Luis Javier Hernández Ortíz
2. Position Title: Major
3. Stormwater Management Program (SWMP) Location (web address or physical location): \_\_\_\_\_  
City Hall Planning Department
4. Mailing Address:
  - a. Street: P.O. Box 1506
  - b. City: Villalba State: PR Zip Code: 00766



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5. Telephone Number: (787) 847-2500
6. E-mail: axelsantiago1@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
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):
- The municipality is composed of 8 wards; Hato Puerco Arriba, Hato Puerco Abajo, Villalba Pueblo, Vacas, Caonillas Arriba, Caonillas Abajo, Villalba Abajo y Villalba Arriba. The Municipality of Villalba has a territorial extension of 37 square miles, of which around more than 4 square miles are water bodies. The geographical region is part of the sub region known as Colinas del Sur. It's located at south of the Mountains Central Range, in the rainy part of the semiarid Colinas del Sur region. The elevations that distinguish the municipality are La Corona and La Montería. The last one reaches the heights of 1,574 feet. There is very little rain. Topographical features include valleys, plains, and coasts. The main access to Villalba is through State Road PR-149, PR-150 and the PR-151.
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? (Part 4.2.3 of 2006 general permit): 0 %
- a. If 100% of 2006 requirements are not met, enter an estimated date of completion: \_\_\_\_\_  
(MM/DD/YYYY)
- b. Web address where MS4 map is published: \_\_\_\_\_  
*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: \_\_\_\_\_  
(MM/DD/YYYY)
2. Construction/Erosion and Sediment Control authority adopted? ☐ Yes ☒ No
- a. Effective Date or Estimated Date of Adoption: \_\_\_\_\_  
(MM/DD/YYYY)

## Villalba Map/Boundaries and MS4 Infrastructure Description:

The Municipality of Villalba has a territorial extension of 37 square miles, of which around more than 4 square miles are water bodies. According to the 2020 Census, its population is 21,372 inhabitants with population density of 577.62 per square mile of land area. The municipality is located on the Central Region at NAD 83 latitude 18° 7' 30 "North and longitude 66° 30'00" West. The city is bordered by Orocovis to the north; Coamo to the east; and Juana Diaz to the south and west. The geographical region is part of the sub region known as Colinas del Sur. It's located at south of the Mountains Central Range, in the rainy part of the semiarid Colinas del Sur region. The elevations that distinguish the municipality are La Corona and La Montaña. The last one reaches the heights of 1,574 ft. Topographical features include valleys, plains, and coasts. The main access to Villalba is through State Road PR-149, PR-150 and the PR-151.

The municipality is composed of 8 wards; Hato Puerco Arriba, Hato Puerco Abajo, Villalba Pueblo, Vacas, Caonillas Arriba, Caonillas Abajo, Villalba Abajo y Villalba Arriba. The following Ward List includes the population density by ward as defined by the 2020 US Census.

### **Caonillas Abajo**

Carretera 150

Sector Cerro Gordo

Sector La Vega

Hoyito Santiago

Sector El Higuero

### **Caonillas Arriba**

Carretera 151 (intersection  
with Carretera 553)

Sector Caonillas

Sector El Limón

Sector Dajaos

Sector La Ortiga

Sector San Miguel

### **Hato Puerco Abajo**

Camarones Abajo  
El Lago

Jovitos Sur

La Ferretería

La Gallera  
Sector Hatillo Viejo

Urbanización Estancias de  
Santa Rosa

### **Hato Puerco Arriba**

1ra. Extensión Alturas de  
Villalba  
2da. Extensión Alturas de  
Villalba  
Carretera 150  
Carretera 151 (intersection  
with Carretera 550)

Carretera 560  
Carretera 561  
Comunidad Toa Vaca  
Egida Villalba Elderly  
Apartments  
Jovitos  
Sector Apeaderos

Sector Camarones  
Sector El Nuevo Pino  
Sector Los Pinos  
Urbanización La Vega  
Urbanización Monte Bello  
Urbanización Portales del  
Alba

### **Vacas**

Carretera 561  
El Mayoral Apartments  
La Pulga  
Sector Hacienda El Mayoral  
Sector La Sierra

Sector Mogote  
Sector Vacas  
Sector Vista Alegre  
Urbanización Estancias del  
Mayoral

Urbanización Estancias del  
Mayoral II  
Urbanización Luceros de  
Villalba  
Urbanización Vista Alegre

### **Villalba Abajo**

Barriada Borinquen  
Carretera 149 (intersection  
with Carretera 514)  
Carretera 149  
Corillo  
Egida Villalba Housing for the  
Elderly  
El Semil Abajo  
Hacienda Juanita  
Hogar Las Margaritas Dos  
Residencial Efraín Suárez

Residencial Enudio Negrón  
Residencial Maximino  
Miranda  
Sector Hacienda Sosa  
Sector Jagueyes Abajo  
Sector Jagueyes Arriba  
Sector Romero  
Sector Tierra Santa  
Urbanización Estancias de  
Valle Hermoso  
Urbanización Las Alondras

Urbanización Nabori  
Urbanización Quintas del  
Alba  
Urbanización Sagrado  
Corazón  
Urbanización Tierra Santa  
Urbanización Valle Escondido  
Urbanización Valle Hermoso  
Urbanización Villa Laura  
Urbanización Vista Bella  
Villalba Apartments

### **Villalba Arriba**

Carretera 149	Sector El Cercao	Sector Lajita
Carretera 547	Sector Hacienda El Semil Arriba	Sector Palmarejo
Sector Aceituna		Urbanización Alturas del Alba
Sector Chichón	Sector La Capilla	

### **Villalba barrio-pueblo**

Barriada Cooperativa	Calle Muñoz Rivera	El Coquí
Barriada Nueva	Calle Sharton	Hogar San Cristobal
Calle Barceló	Calle Vencebil	Sector Barrio Chino
Calle Figueroa	Calle Walter Mck Jones	Sector Palmarejo
Calle Luchetti	Carretera 149	Urbanización Villa Alba

The topographical and natural resources include mountains, small plains and valleys. The economy is based on the plantation and recollection of green pigeon peas and its manufacture, Manufacturing of aluminum packaging and electrical and electronic machinery, nutritional products, medical devices, and others. Appendix #1 from the List of Map Figures shows a map of Villalba site including their wards.

The Municipality of Villalba operates a municipal separate storm water sewer system located in Villalba, Puerto Rico that includes the urban area and rural areas within the municipality. The Villalba municipal separate storm water sewer system is interconnected with the storm water sewer system operated and maintained by the Puerto Rico Department of Transportation and Public Works and that of the Highway and Transportation Authority.

The main hydrographic system in the municipality of Villalba is composed of Jacaguas River; including the streams of Achiote, Cuesta Pasto, Meolaya, De los Guiros y Jagueyes. The Jacaguas River starts between the Hato Puerco Arriba y Vacas wards; this one extends to 36 kilometers

(22.5 miles) until it reach the Caribbean Sea. The Toa Vacas River, the Jacaguas Effluent, which receives the waters from the following described streams: La Cotorra, Limón y Grande. Also, the municipality of Villalba has Toa Vacas and Guayabal reservoirs. Toa Vacas was built from Jacaguas River. The main tributary of the Jacaguas is the Toa Vaca River, on which a dam has also been built is the result of other water bodies and several creeks tributary to the main watercourses. This Report shows a map with Villalba hydrology, which is relevant to this work.

A brief discussion of the characteristic of water bodies and each river is provided below:

**Jacaguas River:** This River is born between Vacas y Hato Puerco Arriba wards in the municipality of Villalba at an elevation of 640 meters above mean sea level. The Rivers runs through the municipality and discharges to the Caribbean Sea at Capitanejo ward. Its approximate length is 38.5 kilometers and its watershed covers an area of 59.9 square miles. Among its tributaries are several creeks like Guanabano, Chorrera, Jagueyes, de los Guiros, Maolaya, Achiote and Cuesta Pasto. A dam was constructed on the Jacaguas River to create the Guayabal reservoir, between Juana Dfaz and Villalba.

**Toa Vaca & Guayabal Reservoir Dams:** The Construction of the Reservoir Toa Vaca was completed in 1972. Is one of the most important factors for the development of multiple uses for the utilization of storm water from Coamo Rivers, Toa Vaca and Jacaguas in the south and Manatí and Arecibo Rivers, in the north.

The Municipality of Villalba Storm Water Sewer System (MS4s) in the urban areas in general consist of a series of catch basins, typically located within the right-of-way of municipal and state roads, interconnected by underground concrete or PVC pipes which finally discharge to the Jacaguas River. In the rural areas the Municipal MS4s system typically consists of a series of interconnected open channel culverts, which run parallel to municipal and state roads, and usually discharge to a surface water body Interconnected to the Municipal MS4s system are the storm water sewer systems owned and operated by the Puerto Rico Department of Public Works and Transportation and the Puerto Rico Highway and Transportation Authority. Also, interconnected to the Municipal MS4s system are the discharges from NPDES (storm water) permitted facilities. As the Municipality of Villalba implements the proposed Storm Management Plan a more accurate description (capacity, operation, etc.) of the Municipal MS4s

system can be provided. The Municipal Public Works Department is responsible for the operation and Maintenance of the Storm Sewer Water System facilities in the Municipality of Villalba. The principal responsibility of the Department is to perform a preventive maintenance program to provide quality service for the citizens. The Department offers services such as open channel cleaning, catch basin clean up and open trash dumping sites elimination. Street sweeping, roadside vegetation maintenance, and other related services are also rendered.

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3. Post-Construction Stormwater Management adopted? ☐ Yes ☒ No
- a. Effective Date or Estimated Date of Adoption: \_\_\_\_\_  
 (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)
Rio Jacaguas	Undetermined			

**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
<b>MCM-1</b>				
The Municipality shall develop a storm water web page associated with its existing web site.	No	Yes	General Public, Commercial and Industrial companies.	The Municipality is expecting to continue with this BMP.
Develop or used an existing educational program to reduce the storm water pollutants.	No	Yes	General Public, Commercial and Industrial companies.	The Municipality is expecting to continue with this BMP.
Develop, produce, and air 30-second radio-based storm water-related public service announcement (PSA) segments to increase the public awareness of the storm water pollution issues within the area.	No	Yes	General Public, Commercial and Industrial companies.	The Municipality is expecting to continue with this BMP.
Develop storm water pamphlets, booklets, and flyers in partnership with the U. S. Environmental Protection Agency (EPA) and State Agencies, intended to solicit interest in a specific storm water event or activity or to promote storm water education and positive behaviors.	No	No	General Public, Commercial and Industrial companies.	Will be covered thru MCM 1-2 for the next cycle.
<b>MCM-2</b>				
The municipal separate storm sewer systems (MS4) shall implement a community program to label storm drains.	No	Yes	City-wide (Centro del Pueblo) Budget constrains	The Municipality is expecting to continue with this BMP.
Promote an annual spring cleanup that will directly involve citizens in water pollution prevention and create awareness that most storms drains discharge untreated waters directly into the river and ocean.	No	Yes	City wide and community leaders	The Municipality is expecting to continue with this BMP.
Develop a volunteer monitoring program during the storm water permit term that will allow tracking water quality changes over time.	No	Yes	Community Leaders and NGO's	The Municipality is expecting to continue with this BMP.
Develop a volunteer Adopt-A-Highway program as a public outreach tool and shall allow participation by any group or organization within the community.	No	No	Private sector	This goal BMP will be cover by MCM2-2.



**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
Support a local organization that incorporates the ideas and resources of local governments, citizens, nonprofit environmental groups, and local educational entities to promote the importance of the resources and its benefits to the community.	No	No	Community in general	This BMP will be covered thru MCM 2-3.
Develop the scope of a community hotline to answer specific storm water questions and identify problems or incidents related to storm water management practices.	No	No	Community at large	This BMP will be covered thru MCM 2-3.
<b>MCM-3</b>				
Develop a storm sewer system map. The storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular water bodies these flows may be affecting. An existing map, such as a topographical map, on which the location of major pipes and outfalls can be clearly presented, demonstrates such awareness. EPA recommends collecting all existing information on outfall locations ( e.g., review city records, drainage maps, storm drain maps), and then conducting field surveys to verify locations.	No	Yes	The Municipality Public Works Department. Budget and Personnel constrains.	The Municipality is expecting to continue with this BMP.
Prohibit non-storm water discharges into the storm sewer system through ordinances and resolutions, and develop and implement actions required to enforce these regulations. EPA recognizes that some permittees may have limited authority under State, or local law to establish and enforce an ordinance or use other regulatory mechanism prohibiting illicit discharges. In such a case, the permittee is encouraged to use existing states laws, programs or regulations.	No	Yes	City-Wide	The Municipality is expecting to continue with this BMP.

**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
The education of public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste and ways to detect and eliminate illicit discharges.	No	No	Public employees, businesses and general public	This BMP will be handled thru MCM 3-2.
Develop a program to detect and identify illicit discharges of non-storm water flows and when detected as significant contributors of pollutants, develop a plan to control and eliminate the contributors to the storm sewer system.	No	No	City-Wide	This BMP will be handled thru MCM 3-2.
Through ordinances and resolutions, prohibit illegal disposal of waste in an un-permitted area or into a storm drain system and develop and implement the actions required to enforce these regulations.	No	Yes	Community at large	The Municipality is expecting to continue with this BMP.
Through ordinances and resolutions, the Municipality shall prohibit unwarranted connection of a wastewater system to a storm drain system and shall develop and implement all procedures, programs, and actions required to appropriately enforce these regulations. Emphasis shall be placed on nonresidential facilities (industrial or business) primarily during building and reconstruction activities.	No	No	community at large	This BMP will be handled thru MCM 3-3
Develop a program to establish and enforce policies for designing, screening, and maintaining the sanitary sewer system.	No	No	Community at large	This BMP will be developed during next cycle.
Develop a program to detect and eliminate failing septic systems; and develop and implement the actions required to enforce proper detection and sizing, maintenance, and post construction inspection considerations of the septic system.	No	No	Rural communities and areas without sewer system.	This BMP will be developed during 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
<b>MCM-4</b>				
Develop ordinances or other regulatory mechanisms to require erosion and sedimentation controls for polluted runoff from construction sites with a land disturbance of greater than or equal to one acre. Because there may be limitations on regulatory legal authority, the small MS4 operator is required to satisfy this minimum control measure only to the maximum extent practicable and allowable under State, or local law.	No	Yes	Private Sector	The Municipality is expecting to continue with this BMP.
Develop and begin implementation of a program to control and eliminate construction site waste that may impact storm water runoff.	No	No	Public and Private Sector	This BMP will be incorporated to MCM 4-1
Develop procedures for the receipt, tracking, and consideration of public inquiries, concerns, and information submitted regarding local construction activities.	No	Yes	Community at large	The Municipality is expecting to continue with this BMP.
Develop the procedures for construction site best management practices (BMPs) inspections and the enforcement of installed erosion and sedimentation control measures.	No	Yes	Public Works Department	The Municipality is expecting to continue with this BMP.
<b>MCM-5</b>				
Runoff problems can be addressed efficiently with sound planning procedures. Local master plans, comprehensive plans, and zoning ordinances can promote improved water quality in many ways, such as guiding the growth of a community away from sensitive areas to areas that can support it without compromising water quality.	No	No	Community at large	This BMP will be incorporated to MCM 5-1

**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
Retention or detention BMPs control storm water by gathering runoff in wet ponds, dry basins, or multichambered catch basins and slowly releasing it to receiving waters or drainage systems. These practices can be designed to both control storm water volume and settle out particulates for pollutant removal.	No	Yes	Municipal and Construction Sites	The Municipality is expecting to continue with this BMP.
Infiltration BMPs are designed to facilitate the percolation of runoff through the soil to ground water, and, thereby, result in reduced storm water runoff quantity and reduced mobilization of pollutants. Examples include infiltration basins/trenches, dry wells, and porous pavement.	No	No	Municipal and Construction Sites	This BMP will be incorporated to MCM 5-1
<b>MCM-6</b>				
The Municipality of Villalba will pursue the establishment of a program of targeted outreach and training for businesses and municipal fleets (public works, school buses, fire, police, and parks) involved in automobile maintenance about practices that control pollutants and reduce storm water impacts. Automotive maintenance facilities are considered to be storm water "hot spots" where significant loads of hydrocarbons, trace metals, and other pollutants may affect the quality of storm water runoff.	No	No	Municipal fleets and bussines.	Will be incorporated at MCM 6-2
The Municipality will implement an aggressive program for the sweeping of parking lots. This is also employed as a nonstructural management practice for industrial sites.	No	No	Municipal Facilities	This BMP will be developed during 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
The Municipality of Villalba will implement a periodic Storm Drain System and catch basins cleanup schedule.	No	No	Community at large	This BMP will be covered by MCM 2-2.
The Municipality will implement an outreach program regarding septic systems controls for large lot development in rural areas that are not served by sewer.	No	Yes	Community at large	The Municipality is expecting to continue with this BMP.
The Municipality will identify potential spill or source areas, such as loading and unloading, storage, and processing areas, places where dust or particulate matter is generated, and areas designated for waste disposal.	No	No	Community at large	NO

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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.)
MCM-1-1 The Municipality shall develop a storm water web page associated with its existing web site.	General information about MS4 requirements and public involvement.	The Municipality shall develop a storm water web page associated with its existing web site	The number of visits to the storm water web page
MCM 1-2 Develop or used an existing educational program to reduce the storm water pollutants.	Educating school children on storm water and water quality practices including water conservation measures, will help promote better public awareness.	Municipal School Education Program	A minimum of 50% of all grade school children will be educated every two years on storm water pollution issues. School education program to promote environmental protection and the vital habitat preservation needs.
MCM 1-3 Develop, produce, and air 30-second radio-based storm water-related public service announcement (PSA) segments to increase the public awareness of the storm water pollution issues within the area.	Public awareness of the storm water pollution issues. Trash free waters.	Public Service Announcement (PSA)	The development of the storm water-related segments; and the number of segments radioed each year.

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**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.)
MCM 2-1 The municipal separate storm sewer systems (MS4) shall implement a community program to label storm drains.	Special Event to label stormwater drains, initially at the urbanized areas close to the city center and later to other urbanized areas thru the municipality.	The number or percentage of storm drains stenciled; and the number of stenciling volunteers.
MCM 2-2 Promote an annual spring cleanup that will directly involve citizens in water pollution prevention and create awareness that most storms drains discharge untreated waters directly into the river and ocean.	Special annual event to perform a spring event to cleanup areas that drain to the Jacaguas River.	The number of stream cleanups; the number of cleanup groups or participants; the quantity of trash and recyclables that were removed by the cleanup; and the number of stream miles cleaned.
MCM 2-3 Develop a volunteer monitoring program during the storm water permit term that will allow tracking water quality changes over time.	Special Event to perform volunteer sampling and monitoring efforts.	The number of volunteers participating in monitoring program; the frequency of monitoring in the watershed; and the number of volunteer monitoring training sessions held.

**United States Environmental Protection Agency**  
**National Pollutant Discharge Elimination System**  
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 Storm Sewer System (MS4) General Permit (PRR040000) for Puerto Rico

**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.)
MCM 3-1 Develop a storm sewer system map. The storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular water bodies these flows may be affecting. An existing map, such as a topographical map, on which the location of major pipes and outfalls can be clearly presented, demonstrates such awareness. EPA recommends collecting all existing information on outfall locations (e.g., review city records, drainage maps, storm drain maps), and then conducting field surveys to verify locations.	A comprehensive infrastructure map of the MS4 has not yet been created. Once completed, this map will aid the municipality in targeting outfalls with dry weather flows and other suspicious discharges for more in-depth inspection and monitoring and will help coordinate management activities to remove illicit connections and track storm drain system maintenance.	The linear feet of conveyances recorded; the number of structural pollution control devices counted; the number of discharge points recorded.
MCM 3-2 Prohibit non-storm water discharges into the storm sewer system through ordinances and resolutions, and develop and implement actions required to enforce these regulations.	Municipal Public Policies prepared by the Municipal Legislature.	The number of ordinances and resolutions passed; the number of penalties enforced upon the participants of illegal dumps; the number of building codes developed to prohibit connections; the number of potential connection sites inventoried.
MCM 3-3 Through ordinances and resolutions, prohibit illegal disposal of waste in an unpermitted area or into a storm drain system and develop and implement the actions required to enforce these regulations.	Municipal Public Policies prepared by the Municipal Legislature.	The number of ordinances and resolutions passed; the number of penalties enforced upon the participants of illegal dumps; the number of building codes developed to prohibit connections; the number of potential connection sites inventoried.



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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.)
MCM 4-1 Develop ordinances or other regulatory mechanisms to require erosion and sedimentation controls for polluted runoff from construction sites with a land disturbance of greater than or equal to one acre. Because there may be limitations on regulatory legal authority, the small MS4 operator is required to satisfy this minimum control measure only to the maximum extent practicable and allowable under State, or local law.	Municipal Public Policies prepared by the Municipal Legislature.	Whether or not ordinances were developed for the following construction issues: special construction entrances, the development of the requiring certification, all regulations are followed for material storage, disposal, etc., and address construction site runoff control.
MCM 4-2 Develop procedures for the receipt, tracking, and consideration of public inquiries, concerns, and information submitted regarding local construction activities.	Information Submitted by the public.	Number of noncompliance reports received; number of construction site inspector follow-ups; number of valid noncompliance reports; number of stop-work notices or Notices of Termination (NOTs); number of documented acknowledgments and considerations of the information submitted.
MCM 4-3 Develop the procedures for construction site best management practices (BMPs) inspections and the enforcement of installed erosion and sedimentation control measures.	Construction Site Inspection and Enforcement	The number of inspected sites; the frequency of inspection and maintenance of BMPs; the number of failed storm water BMPs; the number of BMPs reported to be in need of repair; whether or not an inventory of inspection and maintenance activities was created and is regularly maintained; and the number of enforcement actions taken.

United States Environmental Protection Agency  
National Pollutant Discharge Elimination System  
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**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.)
MCM 5-1 Retention or detention BMPs control storm water by gathering runoff in wet ponds, dry basins, or multichambered catch basins and slowly releasing it to receiving waters or drainage systems. These practices can be designed to both control storm water volume and settle out particulates for pollutant removal.	Develop and implement strategies, which include a combination of structural and/or non-structural best management practices (BMPs). <ul style="list-style-type: none"> <li>• Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, or local law.</li> <li>• Ensure adequate long-term operation and maintenance of controls.</li> <li>• Determine the appropriate best management practices and measurable goals for this minimum control measure.</li> </ul>	The number of new dry/wet ponds installed.

**United States Environmental Protection Agency**  
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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.)
MCM 6-1 The Municipality will implement an outreach program regarding septic systems controls for large lot development in rural areas that are not served by sewer.	Septic system source control refers to the use of outreach programs to educate homeowners about the proper operation and maintenance of their septic systems to reduce the likelihood of failure.	-The frequency of routine maintenance activities; the number of overflows reported; the number of overflow causes that were identified during inspections; the number of sites repaired.
MCM 6-2 Training for Municipal employees	Grounds maintenance and landscaping crews use substantial quantities of water and artificial chemicals, the combination of which has led to elevated levels of nutrients and toxics in receiving waters. The workshop will emphasize the benefits of recycling organic material; reducing the use and planning the timing of application of chemicals and water; selecting native vegetation to reduce water, nutrient, and maintenance demand; and achieving cost savings through reduced labor and material inputs.	Develop a pollution prevention workshop for all municipal employees responsible for grounds maintenance and landscaping at public facilities.
MCM 6-3 Webinars on Water Quality BMPs	The Municipality propose offering a Water Quality BMPs webinar to municipal employees on simple BMPs designed to protect their surface water.	The number of participants and efforts developed by the employees after the webinar.

United States Environmental Protection Agency  
National Pollutant Discharge Elimination System  
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Storm Sewer System (MS4) General Permit (PRR040000) for Puerto Rico

**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.

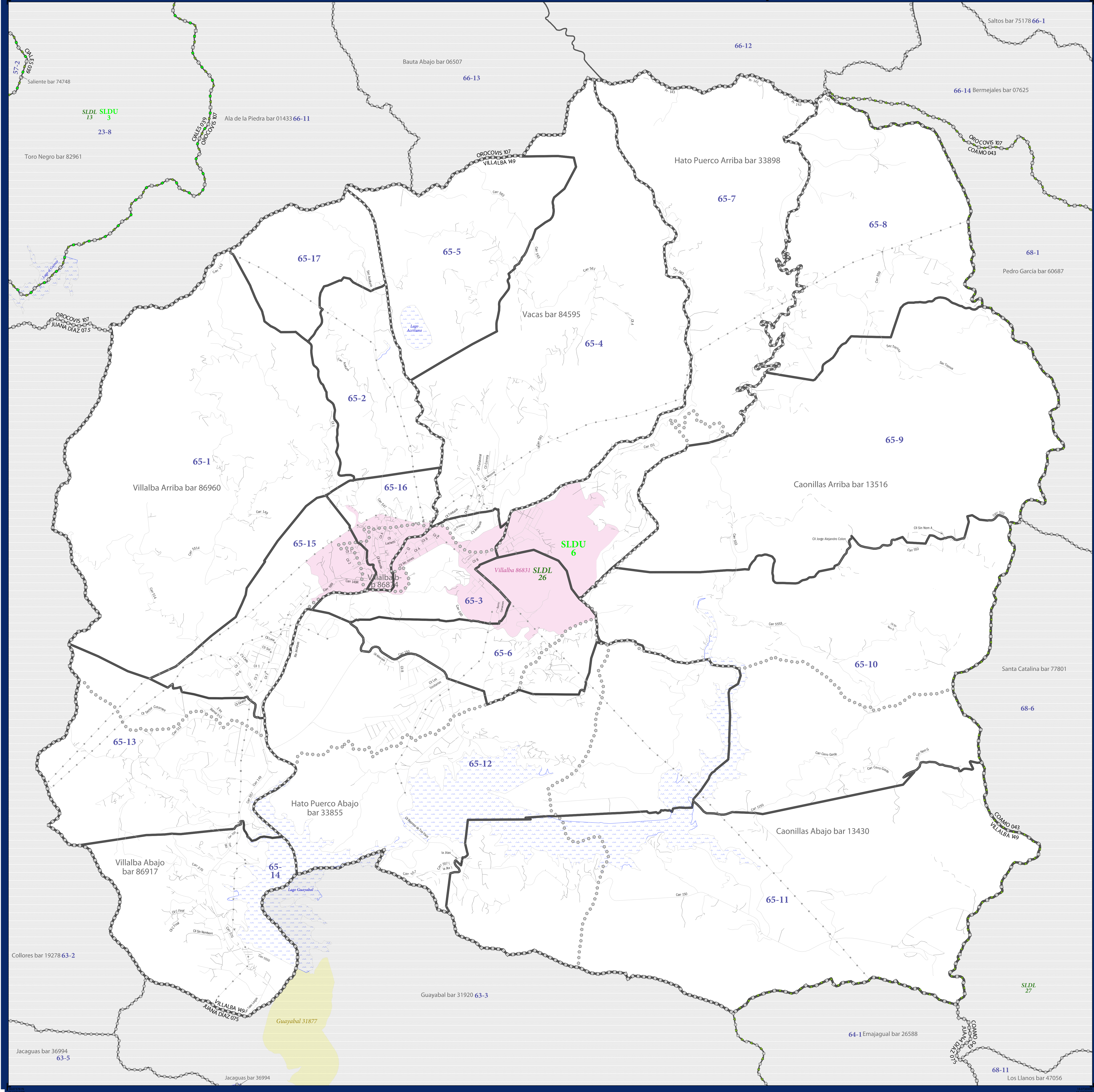
Signature of Mayor/Elected Official:  \_\_\_\_\_

Print Name of Mayor/Elected Official: Luis Javier Hernandez Ortiz

Title: Mayor Date: 06/23/2021



P.L. 94-171 VTD/SLD REFERENCE MAP (2010 CENSUS): Villalba Municipio, PR



LEGEND	
SYMBOL DESCRIPTION	LABEL STYLE
Puerto Rico	PUERTO RICO 72
Municipio	FLORIDA 054
Barrio or Barrio-Pueblo	Palmas bar 58451
Subbarrio	Mercado 53025
Comunidad or Zona Urbana 1	Guaynabo 32522
Voting District (VTD)	93-5
State Legislative District - Upper (Senate)	SLDU 4
State Legislative District - Lower (House)	SLDL 26

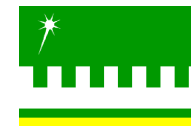
DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
Primary Road	Pr. 52	Water Body	Cayo Rigo
Other Road	Rue Las Costas	Military	Fort Allen
Other Road, Trail, Stairway, Alley, Walkway, or Ferry	Calle Peligosa	National or State Park, Forest, or Recreation Area	Cayo Mata
Railroad		Inset Area	A
Pipeline or Power Line		Outside Subject Area	
Ridge or Fence			
Property Line			
Nonvisible Boundary or Feature Not Elsewhere Classified			

Where Puerto Rico, municipio, and/or barrio or barrio-pueblo boundaries coincide, the map shows the boundary symbol for only the highest-ranking of these boundaries.

1 Label color correlates to the fill color.

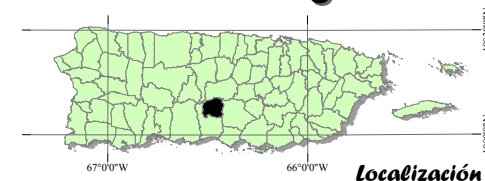


# Municipio de Villalba



## Mapa Hidrográfico

### Ciudad del Gandul



Localización

This is a map depicting the geographical extension of the Municipality of Villalba and the main water bodies within the municipal boundaries. At the present time, the municipality lacks the information and resources needed to develop a detail storm sewer map for the municipal operated MS4. As part of the implementation phase of the NPDES it is the intention of the Municipality of Villalba to develop such map. However, the development of this map will be accomplished in several stages as funding and financial assistant accessibility allow.

### Simbología

- Límites municipales
- - Límites de barrios

### Cuerpos de agua

- Perennes
- - - Intermitentes

### Elevación en metros

- |           |               |
|-----------|---------------|
| 50 - 100  | 500 - 600     |
| 100 - 200 | 600 - 700     |
| 200 - 300 | 700 - 900     |
| 300 - 400 | 900 - 1,000   |
| 400 - 500 | 1,000 - 1,100 |

Los colores no corresponden exactamente a los que aparecen en el mapa.

La gradación de color aparece más atenuada para poder mostrar el sombreado topográfico.

### Fuentes:

Límites de barrios y municipios: ..... Junta de Planificación, 2001  
Cuerpos de agua: ..... USGS, 1982 CRIM, 1998 - OGP, 2005  
Topografía: ..... US Geological Survey



1 0.5 0 1 2  
kilómetros

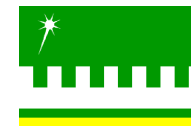


Proyección cartográfica: Cónica Conforme de Lambert  
Datum: Norteamericano de 1983, revs 1986, 1996

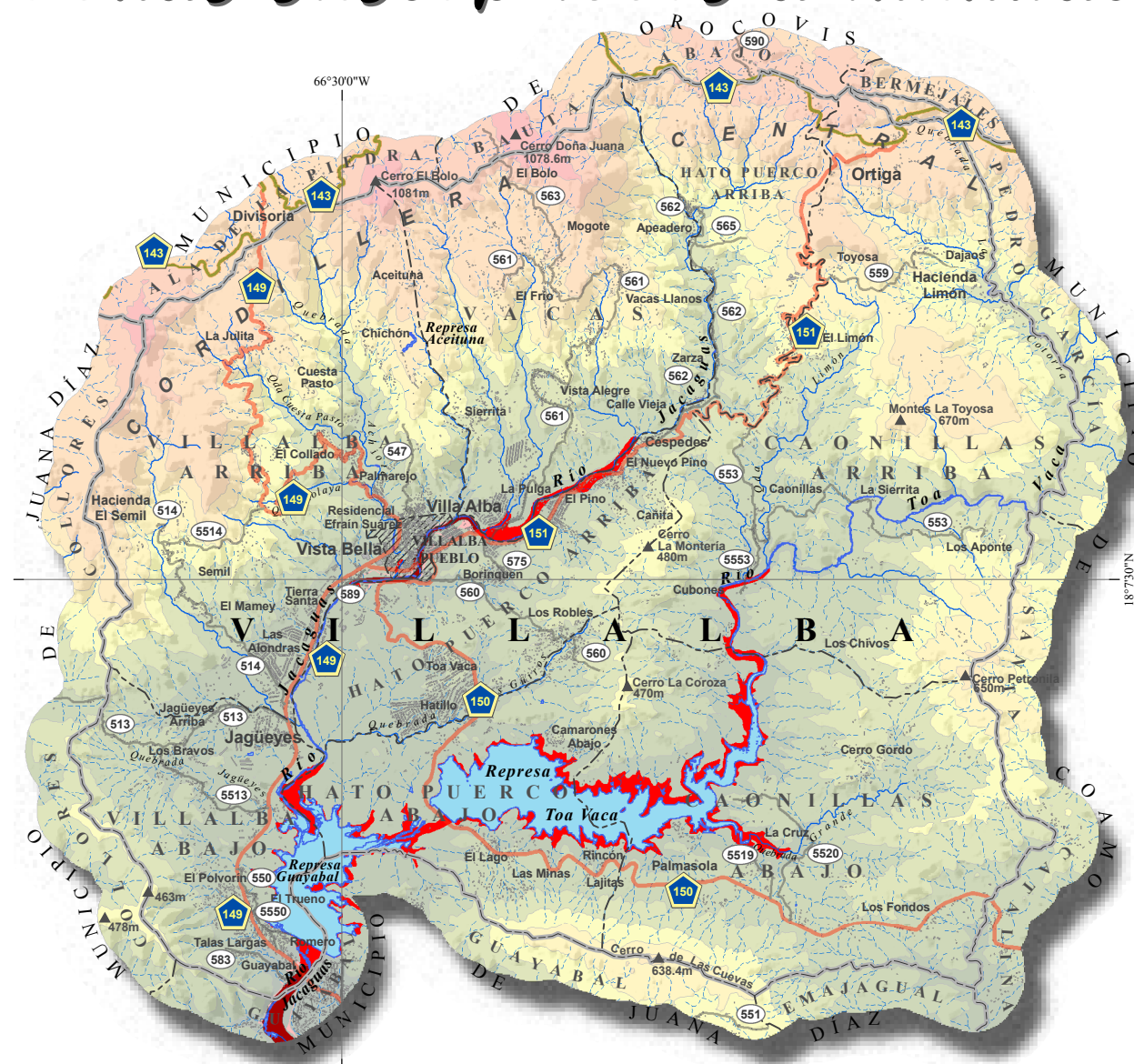
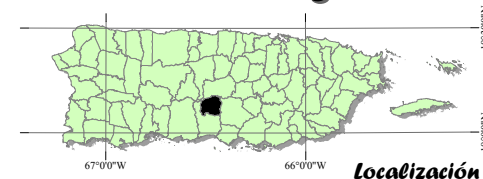
3/xi/06

# Municipio de Villalba

## Zonas susceptibles a inundaciones



### Ciudad del Gandul



### Simbología

— Límites municipales

- - - Límites de barrios

### Cuerpos de agua

— Perennes

- - - Intermitentes

### Zonas susceptibles a inundación

- A: .... 1% probabilidad de inundación por año
- AE: ... 1% probabilidad de inundación por año
- X: .... 0.2% probabilidad de inundación por año
- Valle de inundación

### Elevación en metros

- |  |   |
|--|---|
| <span style="color: darkgreen;">■</span> 50 - 100    | <span style="color: yellow;">■</span> 500 - 600       |
| <span style="color: green;">■</span> 100 - 200       | <span style="color: orangeyellow;">■</span> 600 - 700 |
| <span style="color: lightgreen;">■</span> 200 - 300  | <span style="color: orange;">■</span> 700 - 900       |
| <span style="color: yellowgreen;">■</span> 300 - 400 | <span style="color: redorange;">■</span> 900 - 1,000  |
| <span style="color: yellow;">■</span> 400 - 500      | <span style="color: red;">■</span> 1,000 - 1,100      |

Los colores no corresponden exactamente a los que aparecen en el mapa.

La gradación de color aparece más atenuada para poder mostrar el sombreado topográfico.

### Fuentes:

Límites de barrios y municipios: ..... Junta de Planificación, 2001  
 Cuerpos de agua: ..... USGS, 1982 CRIM, 1998 - OGP, 2005  
 Topografía: ..... US Geological Survey  
 Zonas inundables: ..... FEMA, 2005, Junta de Planificación  
 Huellas de edificios: ..... CRIM, 1996-98  
 Carreteras estatales: ..... ACT-DTOP, 2005

Proyección cartográfica: Cónica Conforme de Lambert  
 Datum: Norteamericano de 1983, revs 1986, 1996

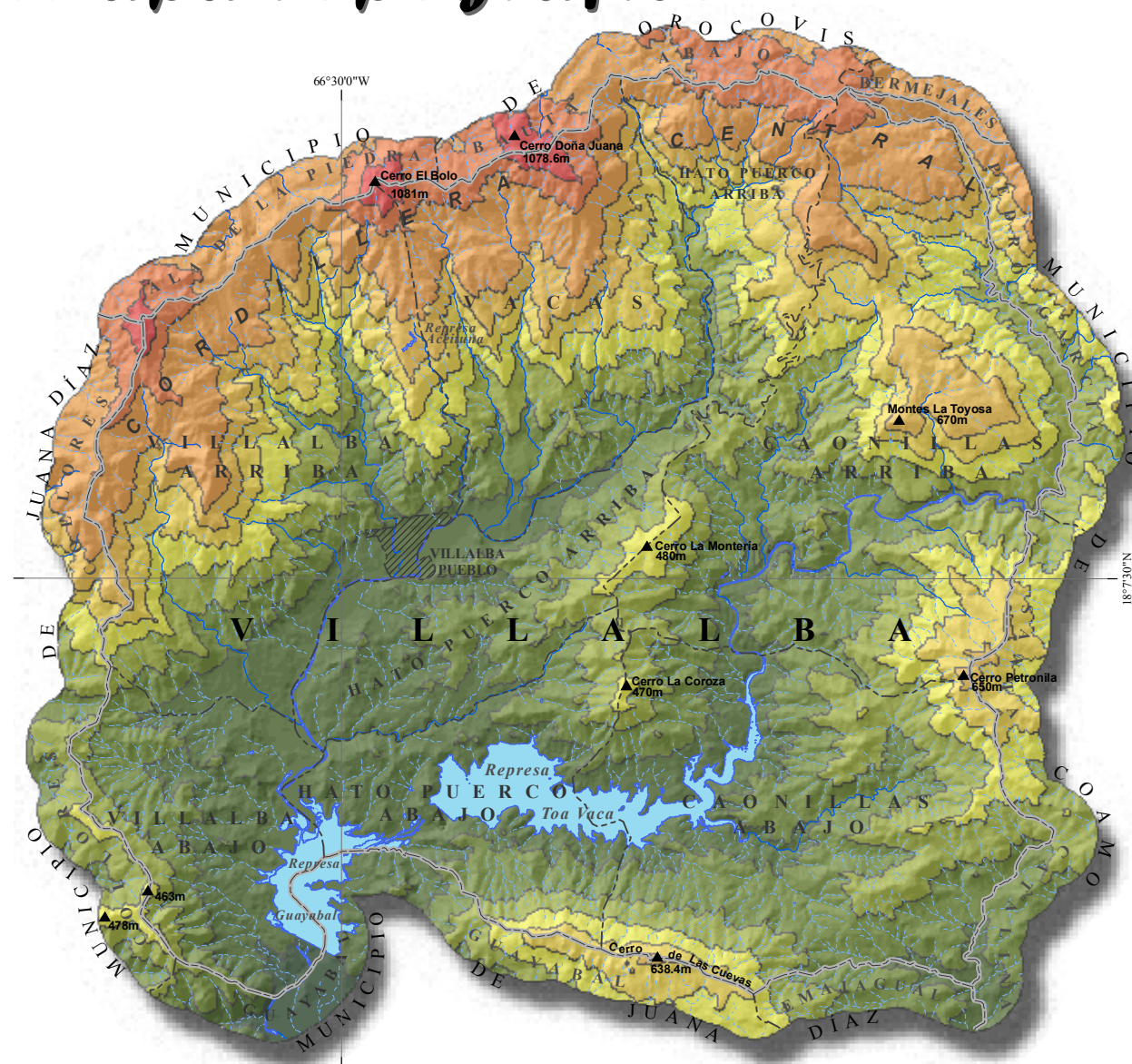




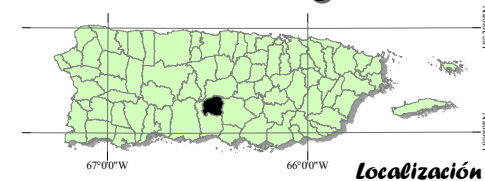
# Municipio de Villalba



## Mapa Topográfico



## Ciudad del Gandul



### Estadísticas de elevación:

En metros

Mínimo: ..... 70  
Máximo: ..... 1,080  
Promedio: ..... 387  
Mediana: ..... 325

Dentro de los límites territoriales de Villalba

Tomado de los mapas topográficos del US Geological Survey, versión 1977-82

### Estadísticas de elevación:

por barrio

	MIN	MAX	AMPLITUD	MEDIA	MEDIANA
Villalba Abajo	70	451	381	189	174
Hato Puerto Abajo	110	579	469	206	176
Villalba Arriba	110	1,066	956	501	485
Hato Puerto Arriba	110	998	888	380	298
Caonillas Abajo	120	630	510	274	260
Villalba-Pueblo	140	205	65	161	160
Caonillas Arriba	150	992	842	433	400
Vacas	160	1,080	920	538	521

### Simbología

— Límites municipales

--- Límites de barrios

### Elevación en metros

50 - 100	500 - 600
100 - 200	600 - 700
200 - 300	700 - 900
300 - 400	900 - 1,000
400 - 500	1,000 - 1,100

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La gradación de color aparece más atenuada para poder mostrar el sombreado topográfico.

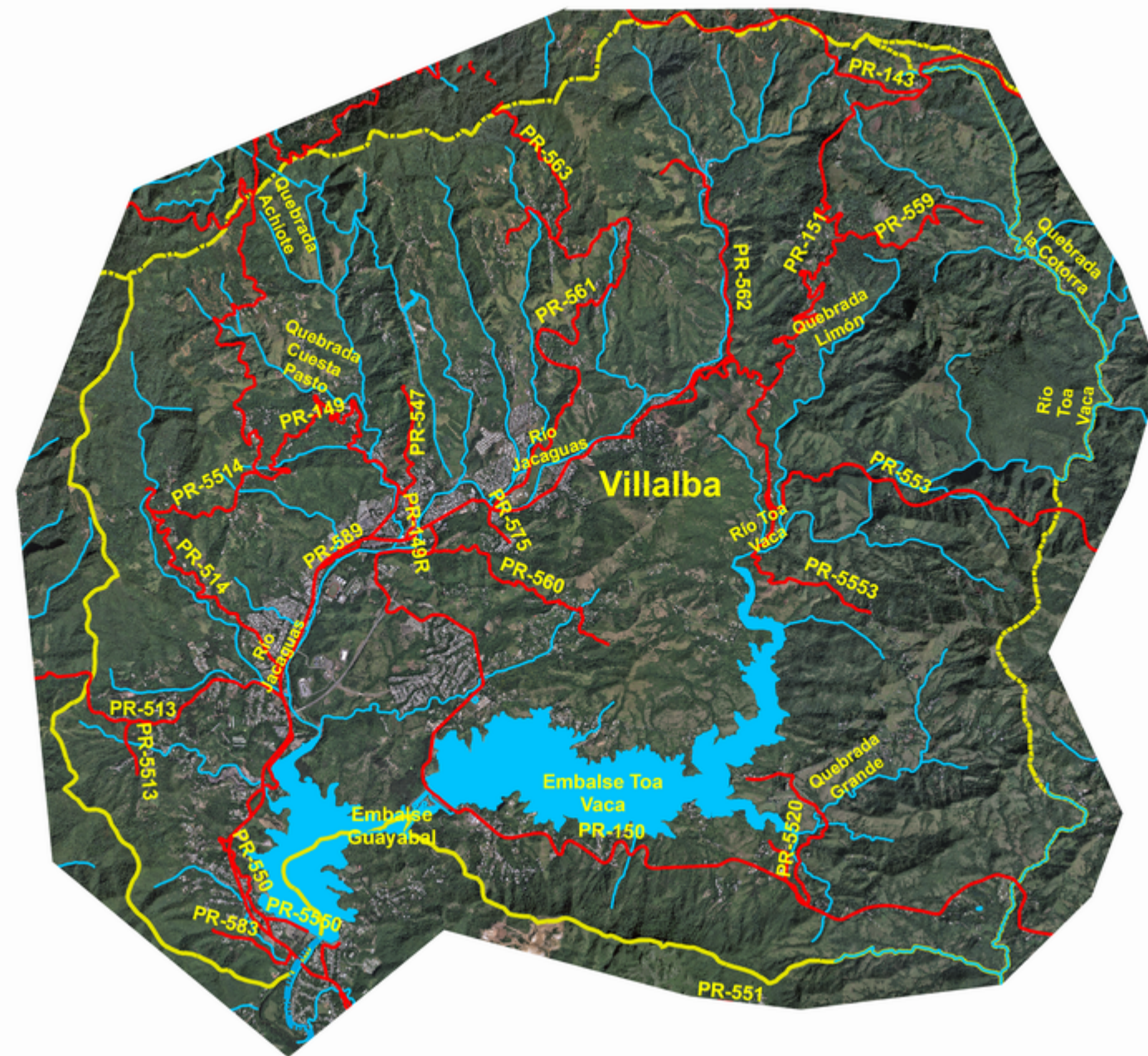
### Fuentes:

Límites de barrios y municipios: .... Junta de Planificación, 2001

Cuerpos de agua: ..... CRIM, 1998 - OGP, 2005

Topografía: ..... US Geological Survey



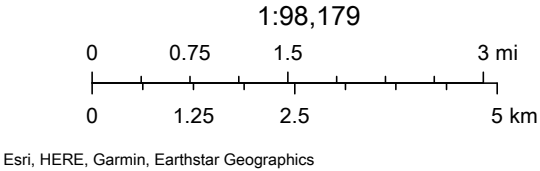




Puerto Rico: Registro Nacional de Lugares Históricos



June 24, 2021



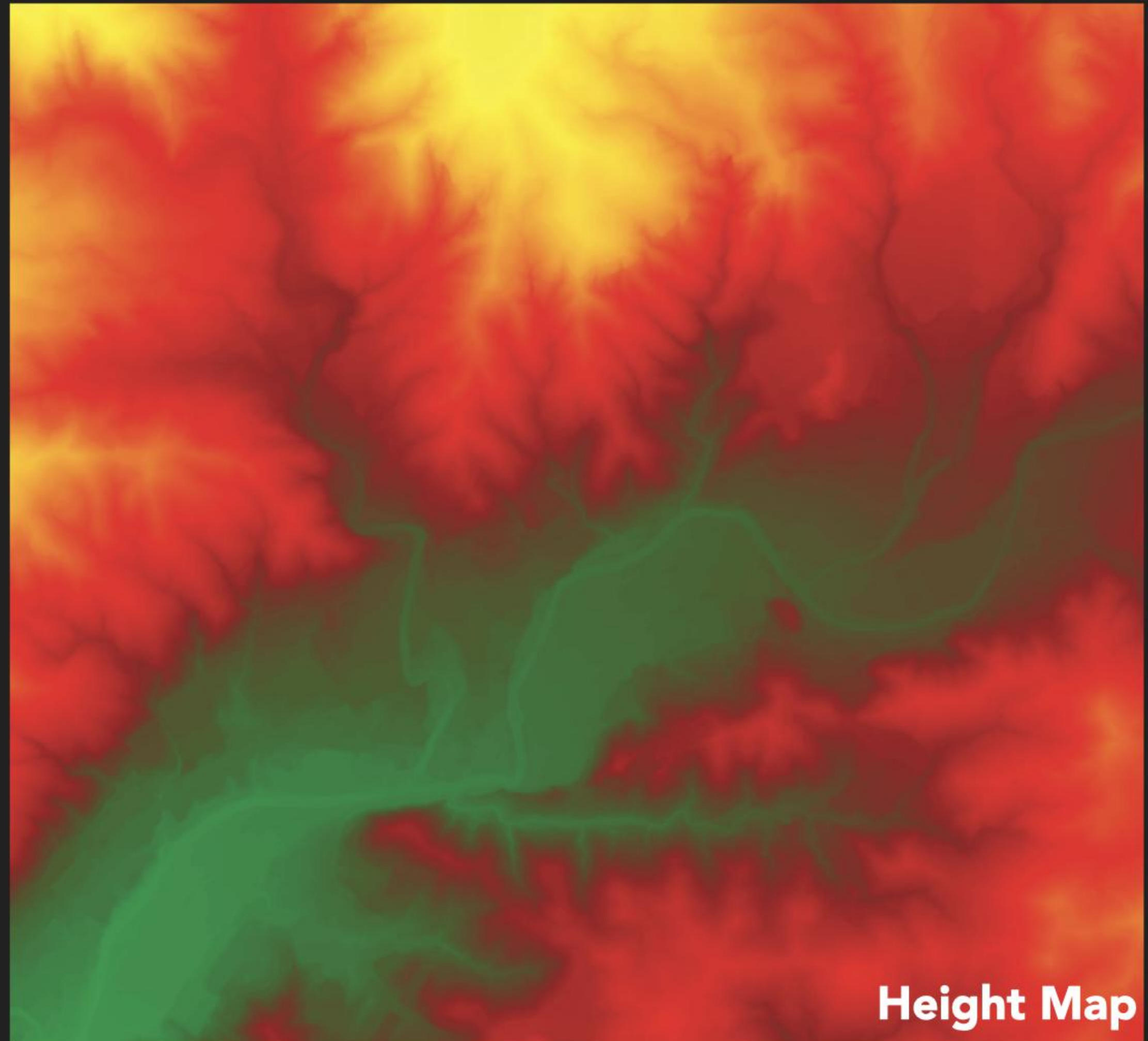
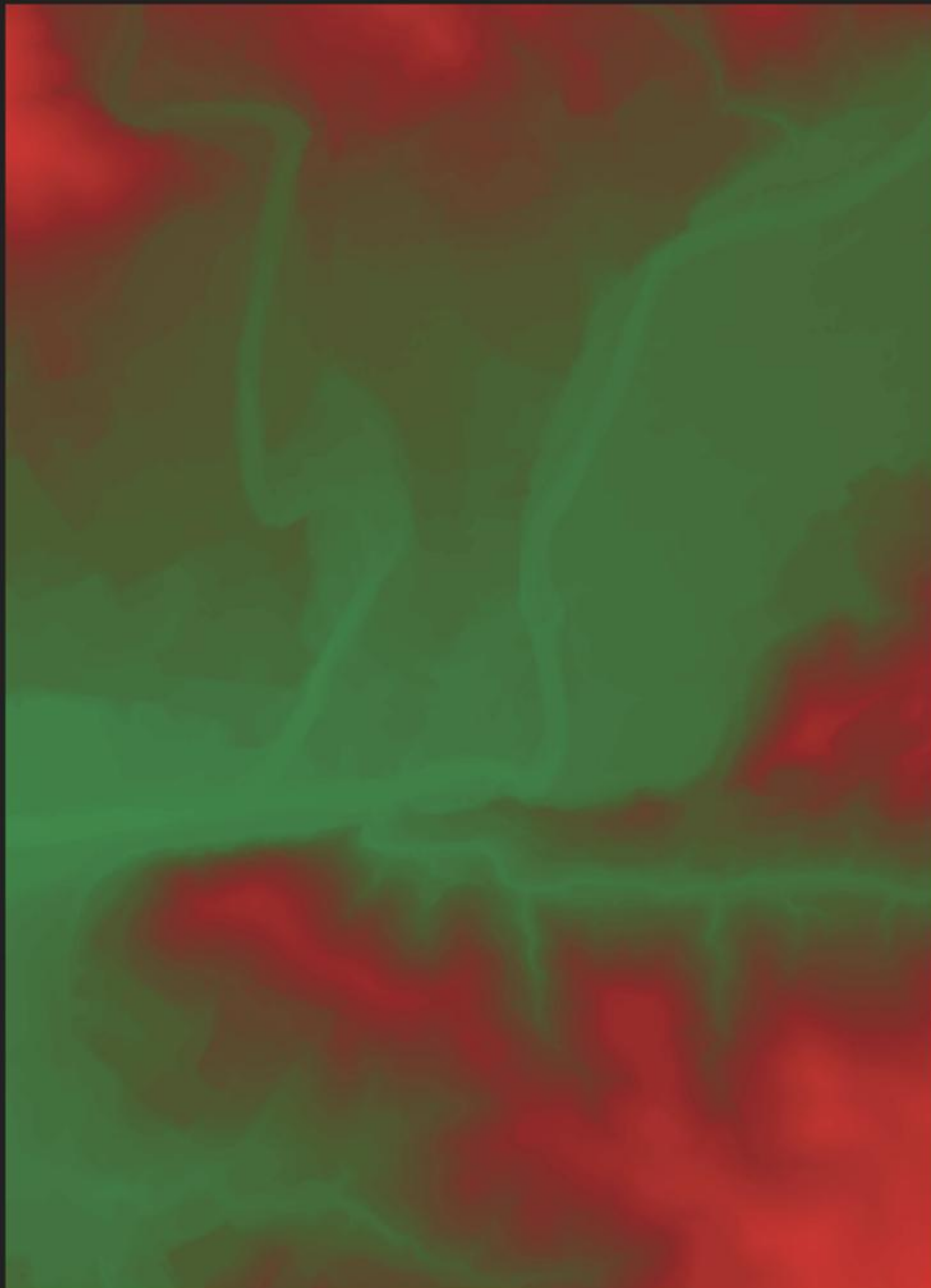




# Villalba Center

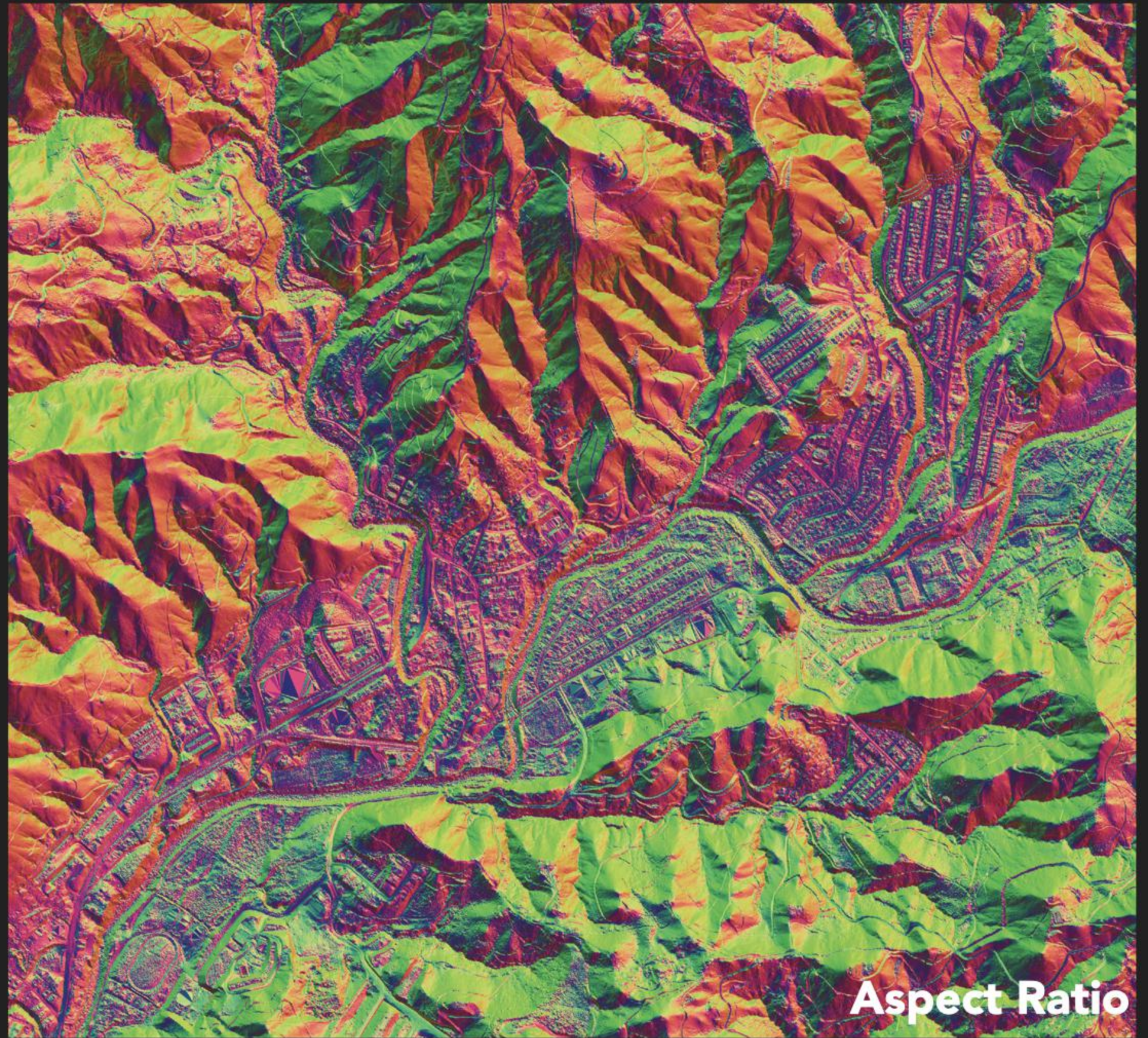
◆ Aerial View





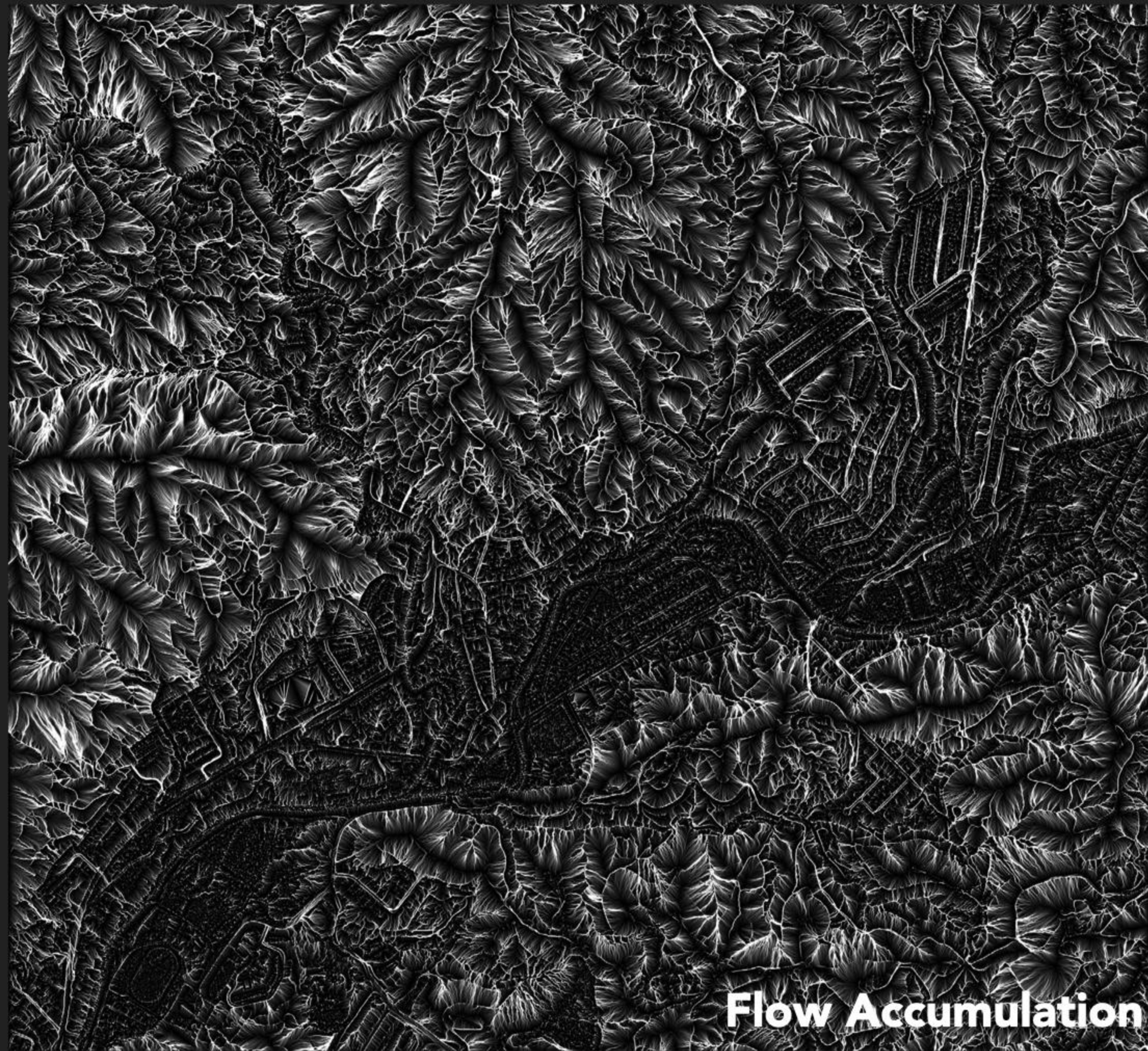
**Height Map**





Aspect Ratio









**Flow Vectors**





## 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:

June 24, 2021

Consultation Code: 04EC1000-2021-SLI-1013

Event Code: 04EC1000-2021-E-01630

Project Name: Villalba MS-4

Subject: List of threatened and endangered species that may occur in your proposed project location 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**  
**Boquerón, PR 00622**  
**Telephone: (787) 851-7297**  
**Fax: (787) 851-7440**  
**Email: [caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov)**  
**<http://www.fws.gov/caribbean/es>**

**Send all documents to:**

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

**Attachment(s):**

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

## Official Species List

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

This species list is provided by:

**Caribbean Ecological Services Field Office**

Post Office Box 491

Boqueron, PR 00622-0491

(787) 851-7297

## Project Summary

Consultation Code: 04EC1000-2021-SLI-1013

Event Code: 04EC1000-2021-E-01630

Project Name: Villalba MS-4

Project Type: WATER QUALITY MODIFICATION

Project Description: Evaluation and Submittal of the Notice of Intent (NOI) for the Villalba MS-4 Permit

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.129830499999997,-66.47546102903226,14z>



Counties: Villalba County, Puerto Rico

## Endangered Species Act Species

There is a total of 11 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 Fisheries<sup>1</sup>, 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.

### Birds

NAME	STATUS
Puerto Rican Broad-winged Hawk <i>Buteo platypterus brunnescens</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5512">https://ecos.fws.gov/ecp/species/5512</a>	Endangered
Puerto Rican Nightjar <i>Caprimulgus noctitherus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6972">https://ecos.fws.gov/ecp/species/6972</a>	Endangered
Puerto Rican Parrot <i>Amazona vittata</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3067">https://ecos.fws.gov/ecp/species/3067</a>	Endangered
Puerto Rican Sharp-shinned Hawk <i>Accipiter striatus venator</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/604">https://ecos.fws.gov/ecp/species/604</a>	Endangered

### Reptiles

NAME	STATUS
Puerto Rican Boa <i>Epicrates inornatus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6628">https://ecos.fws.gov/ecp/species/6628</a> General project design guidelines: <a href="https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6757.pdf">https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6757.pdf</a>	Endangered

## Flowering Plants

NAME	STATUS
Beautiful Goetzea <i>Goetzea elegans</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6453">https://ecos.fws.gov/ecp/species/6453</a>	Endangered
Cook's Holly <i>Ilex cookii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3475">https://ecos.fws.gov/ecp/species/3475</a>	Endangered
Palo De Ramon <i>Banara vanderbiltii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8113">https://ecos.fws.gov/ecp/species/8113</a>	Endangered
West Indian Walnut (=nogal) <i>Juglans jamaicensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/745">https://ecos.fws.gov/ecp/species/745</a>	Endangered

## Ferns and Allies

NAME	STATUS
Elaphoglossum serpens No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5393">https://ecos.fws.gov/ecp/species/5393</a>	Endangered
Elfin Tree Fern <i>Cyathea dryopteroides</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4895">https://ecos.fws.gov/ecp/species/4895</a>	Endangered

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

## 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 Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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](#).

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

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

## 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](#) 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](#).

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**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 to 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.

## 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.

### LAKE

- [L](#)

### FRESHWATER POND

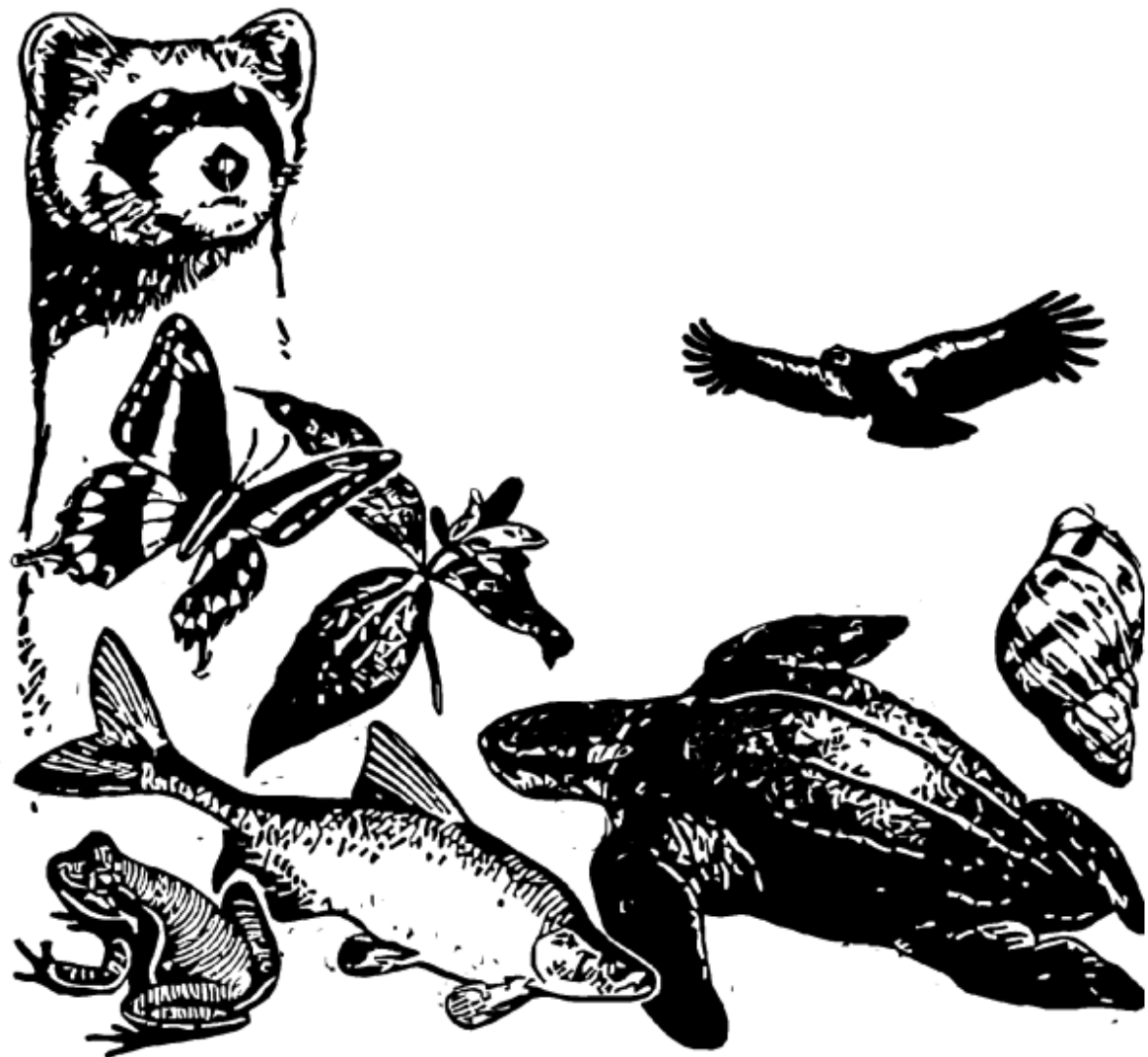
- [PUB](#)

### RIVERINE

- [R4SBC](#)
- [R5UBH](#)
- [R2UBH](#)

# *General Project Design Guidelines (1 Species)*

Generated June 24, 2021 02:36 PM MDT, IPaC v5.60.0



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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# Species Document Availability

## Species with general design guidelines

Puerto Rican Boa *Epicrates inornatus*

## Species without general design guidelines available

Beautiful Goetzea *Goetzea elegans*

Cook's Holly *Ilex cookii*

Elaphoglossum *serpens*

Elfin Tree Fern *Cyathea dryopteroides*

Palo De Ramon *Banara vanderbiltii*

Puerto Rican Broad-winged Hawk *Buteo platypterus brunnescens*

Puerto Rican Nightjar *Caprimulgus noctitherus*

Puerto Rican Parrot *Amazona vittata*

Puerto Rican Sharp-shinned Hawk *Accipiter striatus venator*

West Indian Walnut (=nogal) *Juglans jamaicensis*

# General Project Design Guidelines - Puerto Rican Sharp-shinned Hawk and 10 more species

Published by Caribbean Ecological Services Field Office - Publication Date: November 3, 2020 for the following species included in your project

Puerto Rican Sharp-shinned Hawk *Accipiter striatus venator*

West Indian Walnut (=nogal) *Juglans jamaicensis*

Puerto Rican Nightjar *Caprimulgus noctitherus*

Beautiful Goetzea *Goetzea elegans*

Puerto Rican Parrot *Amazona vittata*

Cook's Holly *Ilex cookii*

Elfin Tree Fern *Cyathea dryopteroides*

Palo De Ramon *Banara vanderbiltii*

Puerto Rican Boa *Epicrates inornatus*

*Elaphoglossum serpens*

Puerto Rican Broad-winged Hawk *Buteo platypterus brunnescens*



## 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 is subject to penalties under the ESA. 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 impacts to the species.

The endangered Puerto Rican (PR) boa (*Chilabothrus inornatus*, formerly *Epicrates inornatus*) is the largest endemic snake species that inhabits Puerto Rico. The PR boa is non-venomous and does not pose any life threatening danger to humans, but some individuals may try to bite if disturbed or during capture or handling. Its 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.





The Puerto Rican boa was federally listed in 1970. Currently, the species 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 mature forest to areas with different degrees of human disturbance like roadsides or houses, especially if near their habitat in rural areas. This boa is considered mostly nocturnal, remaining less active, concealed or basking under the sun during the day.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the PR boa and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented 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 the species as well as penalties for harassing or harming PR boas. An educational poster or sign with photo or illustration of the species 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 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 the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), a biologist or personnel with experience on this species should survey the areas to be cleared to verify the presence of any PR boa within the work area.
4. The PR boa is considered more active at night. Thus, in order to maximize its detection, the species should be searched at nights prior to habitat disturbance.
5. Once the area has been searched for PR boas, vegetation should first be cleared by hand to the maximum extent possible. Vegetation should be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow boas present on site to move away on their own to adjacent available habitat. Any stone walls or naturally occurring rock piles must be carefully dismantled by hand as these are refuges for the snake. This will allow any boas present to vacate the site without injury.
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), site GPS coordinates, the time and date, and comments on how the animal was detected and its behavior.

7. If a PR boa is found within any of the working or construction areas, activities should stop at that area and information recorded (see #6). **Do not capture the boa.** If boas need to be moved out of harm's way, designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue.
8. 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. This information should be reported to the Service.
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 (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, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal (see #7). If not possible, the animal should be left alone until it leaves the vehicle on its own.
10. PR boas may seek shelter in 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 far 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 areas that will not be disturbed in the future.
11. If 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 accidentally? killed as part of the project actions, please include information on what conservation measures had been implemented and what actions that will be taken to avoid further killings. 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 and regulations. Please contact the PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

- Marelisa Rivera, Deputy Field Supervisor
  - Email: [maRELISA\\_rivera@fws.gov](mailto: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](mailto:jose_cruz-burgos@fws.gov)
  - Office phone 787-851-7297 ext. 218 or mobile 787-510-5206