

Environmental Assessment

Determinations and Compliance Findings for HUD-assisted Projects

24 CFR Part 58

Project Information

Project ID: PR-RGRW-03946

Project Name: Zoemma Inc

Responsible Entity: Puerto Rico Department of Housing

Grant Recipient (if different than Responsible Entity): Same as above

State/Local Identifier: Puerto Rico / Morovis, PR

Preparer: Patricia Carmenatty

Certifying Officer Name and Title: Permit and Environmental Compliance Officers: Sally Acevedo Cosme, Pedro de León Rodríguez, Ivelisse Lorenzo, Janette Cambrelen, Santa Ramirez, Limary Vélez Marrero, Juan Carlos Perez Bofill, and Mónica M. Machuca Ríos. María T. Torres Bregón - Environmental Manager, and Angel G. Lopez Guzman - Deputy Director

Consultant: Behar Ybarra & Associates LLC

Direct Comments to: Puerto Rico Department of Housing:
(environmentcdbg@vivienda.pr.gov)

Project Location:

Carr 155 KM 35.5, Bo Percha, Morovis, PR 00687

Greenhouse location: latitude 18.274475, longitude -66.404823

Parcel cadastral # 193-000-003-75-000

Description of the Proposed Project [24 CFR 58.32; 40 CFR 1508.25]:

The proposed activities for PR-RGRW-03946, consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps and all will be placed inside the greenhouse bare soil. The products they grow are cilantro, lettuce, recaó, banana, pumpkin and Cubanelle pepper. The new hydroponic system will be

served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection.

The Area of Potential Effect (APE) has been defined as the area potentially impacted by ground disturbing activities related to the installation of the new greenhouse. Based on this definition and the nature and scope of the Undertaking, the Program has determined that the direct APE for this project is the location of the greenhouse plus a 15-meter buffer and the visual APE is the viewshed of the proposed project.

A site Map is included in Figure 1, illustrating the location of the new greenhouse on the property. Photos of the locations are included in the Section 106 documentation, Appendix 1. Refer to Appendix 3 for Site Inspection Report.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]: The Re-Grow Puerto Rico Urban-Rural Agriculture Program (RGRW) will increase agricultural capacity while promoting and increasing food security island wide. This Program will enhance and expand agricultural production related to economic revitalization and sustainable development activities. This agricultural project associated with the installation of a greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps) and the purchase of a transit vehicle and tractor is in keeping with the overall objectives of the Economic Development Program.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The existing area for which the proposed new greenhouse will be installed is located near a slope. The area is almost entirely covered with grasses. There is a small area of reddish soil. There is nothing planted in the area where the greenhouse will be installed at this moment. Therefore, there is no change in land use associated with these placements.

Funding Information

Grant Number	HUD Program	Funding Amount
B-18-DP-72-0001 B-17-DM-72-0001 B-19-DP-78-0002 B-18-DE-72-0001	Community Planning and Development (CPD) / Community Development Block Grant - Disaster Recovery (CDBG-DR)	\$11,938,162,230.00

Estimated Total HUD Funded Amount: \$98,958.00

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$98,958.00.

Compliance with 24 CFR 58.5 and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits or approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	This project of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps) a Tractor and a Transit vehicle will have no impact on any Airports. The site is located 110,990 feet from the nearest major civil airport (Mercedita International Airport in Ponce) and 151,644 feet from the nearest military airport (Luis Muñoz Marín International Airport in San Juan). This topic is in compliance with the HUD's Airport Hazard regulations without further evaluation. See the attached Airport map Runway Protection Zone, Figure 2.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	This project is not located in a CBRS Unit. The project is located 66,467 feet southeast of the nearest Coastal Barrier Resource System, PR-83. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. See the attached CBRS map, Figure 3.

<p>Flood Insurance</p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project is located in a Zone X, Panel 72000C0670J, 11/18/2009 on the FEMA FIRM. The project does not require flood insurance or is excepted from flood insurance. See attached Flood Map, Figure 4 and 4.1.</p>
<p>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.5</p>		
<p>Clean Air</p> <p>Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor and a Transit vehicle for an agricultural site and is not located in a nonattainment municipality of Puerto Rico (Arecibo, Bayamón, Cataño, Guaynabo, Salinas, San Juan, Toa Baja). The installation and operation of this project will have no impact and is in compliance with the Clean Air Act without further evaluation. See attached published list of Puerto Rico Nonattainment/Maintenance Status for each county by year for all criteria pollutants in Appendix 2.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project is located 61,840 feet from the nearest Coastal Zone Management Area and does not affect a Coastal Zone as defined in the state Coastal management Plan. The project is in compliance with the Coastal Zone Management Act. See the attached CZMA map, Figure 5.</p>
<p>Contamination and Toxic Substances</p> <p>24 CFR Part 58.5(i)(2)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor and a Transit vehicle for an agricultural project. On-site or nearby toxic, hazardous, or radioactive substances that could affect the health</p>

		<p>and safety of project occupants or conflict with the intended use of the property were not found. There are no sites of environmental concern identified within 3,000 feet from the project site.</p> <p>The project is in compliance with contamination and toxic substances requirements. See attached Toxics Map, Figure 6.</p>
<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>After reviewing data from the United States Fish and Wildlife Service (USFWS) Information and Planning Consultation (IPaC) and the Puerto Rico Department of Natural and Environmental Resources (DNER) database, the Puerto Rican boa (<i>Chilabothrus inornatus</i>) and Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>) could be found in the project area.</p> <p>The nature of the project, scope of work, information available, a careful analysis of the IpaC, the Puerto Rico Boa conservation measures, the Caribbean Dkey in the US Fish and Wildlife Service's online IPaC application, and the observations during the field visit, were used to evaluate the potential impacts to federally listed species from this project. Based on that information and the answer inputted into the Dkey, it was determined that the proposed action will have "No Effect" determination on the Puerto Rican Boa.</p> <p>Based on what was observed during the site inspection, there will be no removal of large vegetation and there is no intention of cutting down trees or altering the general area where the greenhouse will be installed. The spaces provided for the proposed activities have been cleared and maintained that way for agricultural purposes. Based on these</p>

		<p>observations we determined that the proposed action will have a NE (No Effect) on the Puerto Rican Harlequin butterfly. The project is 47,289 feet from the nearest final endangered species critical habitat for the PR Harlequin butterfly. Therefore, the project has no critical habitats in the area.</p> <p>If a Puerto Rican Boa is found in the project activity site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the Construction Manager shall contact the Puerto Rico Department of Natural and Environmental Resources and ask for them to relocate the Boa. As established by the USFWS Puerto Rican Boa Conservation Measures Guideline.</p> <p>https://ipac.ecosphere.fws.gov/guideline/design/population/156/office/41430.pdf</p> <p>This project is in compliance with the Endangered Species Act. Refer to Appendix 4 for the Ipac Report and Threatened and Endangered Species review letter. See attached Endangered Species map, Figure 7.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor and a Transit vehicle and does not include development, construction or rehabilitation that will increase residential density. This project is in compliance with Explosive and Flammable hazards without further evaluation.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project does not include any activities that could potentially convert agricultural land to non-agricultural use. All areas under the project site are not</p>

<p>sections 1504(b) and 1541; 7 CFR Part 658</p>		<p>prime farmland. The project is in compliance with the Farmland Protection Policy Act. See the attached Farmlands map, Figure 8.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project is located in a Zone X, Panel 72000C0670J, 11/18/2009 (Figure 4). The site is not located in a Preliminary Firm or an Advisory Base Flood Elevation special flood hazard area. The project is in compliance with Executive Order 11988. See attached Flood Map (Figure 9).</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The site was visited on August 29, 2023, by SOI-qualified archaeologist. Based on this definition and the nature and scope of the undertaking, the APE has been defined as the area potentially affected by ground-disturbing activities related to the new greenhouse. Documentation with photographs and maps was subsequently submitted to SHPO (attached Appendix 1). In a response from PR SHPO dated September 27, 2023, SHPO concurred with a finding of No Historic Properties Affected within the project's Area of Potential Effects (see attached Appendix 1). The property is not considered historic or contributing to an historic district (See attached Historic map, Figure 10). Therefore, this activity is in compliance with National Historic Preservation Act.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor and a Transit vehicle for an agricultural site. The project does not include new construction for residential use or rehabilitation of an existing residential property. The site is rural in nature and there will be no impact to or from the surrounding area from a noise</p>

		perspective. This topic is in compliance with Noise Control Act without further evaluation.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	There are no EPA sole source aquifers in Puerto Rico. The project is in compliance with Safe Drinking Water Act without further evaluation. See the attached Sole Source Aquifers map, Figure 11.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>There is an unnamed creek located at 109 feet near the project activity area. However, for the installation of the greenhouse the only ground disturbance will be anchored 8' spaced supports buried 2 feet deep, and the project does not require draining, dredging, channelizing, filling, diking, impounding or related activities on or near the wetland area. However, standard BMPs should be applied to mitigate impact on wetlands, like installing erosion controls or diverting runoff (in any) around the areas of ground disturbance.</p> <p>The Area of Potential Effect is located outside of the creek; therefore, no wetland will be affected by the project undertaking. The project is in compliance with Executive Order 11990. See the attached Wetlands map, Figure 12.</p>
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	This project is not within proximity of the NWSRS river. The project is located 213,059 feet from the nearest Wild and Scenic River. The project is in compliance with the Wild and Scenic Rivers Act. See Map, Figure 13.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Based on the scope of work for this project, there will be no additional impact on low-income or minority residents. This proposed activity will not have a negative impact on

		Environmental Justice. Therefore, the proposed activity complies with the Executive Order 12898.
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Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement.

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The proposed action is continued agricultural use of property which is compatible with a zoning code of R0 (Low Density Residential) and existing land use of SRC (Common Rustic Land). There is no urban design associated with this rural, agricultural site.

Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	<p>The soil is currently being used for agriculture purposes. There is no change in land use since the land will continue to be used to agriculture purposes. The soil in this area has been classified as Mucara clay, 40 to 60 percent slopes (MuF). This soil is moderately deep, very steep and well drained. It is on the side slopes and ridgetops of humid volcanic uplands. The permeability is moderate, and the available water capacity is low. Runoff is rapid. Natural fertility is medium. Slope and the depth to rock are the main limitations of this soil for nonfarm development.</p> <p>The landslide data indicates moderate to very high landslide susceptibility; therefore, no erosion is expected to occur from this project. The project will not affect the drainage in the area. There will be little to no additional runoff associated with the project. See Landslide Susceptibility Map, Figure 14.</p>
Hazards and Nuisances including Site Safety and Noise	2	There are no specific environmental hazards that have been identified for this site. The site is not in a high Noise Level area, nor will the project generate any additional noise. Additionally, the project does not include housing or such to where inhabitants would be affected.
Energy Consumption	2	The project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor and a Transit vehicle on an existing agricultural farm and will not require any expansion to existing power facilities. The greenhouse hydroponic system includes two 200-gallon cisterns and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil and all connections will be aboveground. The power needed to operate the water pumps will be provided by an existing P.R.E.P.A/LUMA connection on the property. The power connection is located at a distance of approximately 260 feet and the lines will be installed overhead.
Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		

Employment and Income Patterns	2	The project will result in short-term benefit to employment when contractors are hired for the construction of the new greenhouse. After construction, there may be a net positive benefit for the farm, a small business receiving this funding for economic development recovery purposes, which will aid in the continued operations of the intended use of the farm which products will be used by Puerto Rico population. The project is not anticipated to have a significant impact on Employment and Income Patterns, however, the project may help restore employment opportunities and income patterns.
Demographic Character Changes, Displacement	2	The proposed project will not alter the demographic characteristics of Morovis, PR. The applicant is already located at this location and the project will provide opportunities for the continuous agricultural growth of the business.
Environmental Justice	2	In the project area within a one-mile radius: <ul style="list-style-type: none"> • The people of color are 100% compared to PR average of 96% • 90% of the people are low income compared to PR average of 70% • 24% of the people are unemployed compared to PR average of 15% <p>The proposed activities of the installation of the greenhouse will have a positive impact on creating jobs for local people. Therefore, the proposed activity complies with this section. See EJScreen Report in Appendix 3.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	The project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor, and a Transit vehicle for an agricultural site and

		will have no impact on educational and cultural facilities.
Commercial Facilities	2	The proposed project may aid in restoring the demand for local commercial services; however, not to the point of putting undue pressure on commercial facilities.
Health Care and Social Services	2	The project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor, and a Transit vehicle for an agricultural site and will have no impact on Health Care and Social Services.
Solid Waste Disposal / Recycling	2	The proposed project will have no impact on Solid Waste Disposal / Recycling services. The products and by-products are agricultural, and any waste would be biodegradable. The remaining construction solid waste materials would be collected for transport to the local landfill.
Wastewater / Sanitary Sewers	2	<p>The purchase and installation of greenhouse is not expected to result in significant changes in wastewater or sanitary sewer generation. Wastewater from the project will not enter environmentally sensitive areas like streams or rivers, nor will the project produce any noxious odors affecting the quality of life of nearby residents. The NFT system uses a pump to deliver water to the grow tray and a drained pipe to recycle the unused water nutrient solution. The grow tray is placed at an angle (supported by a rack or on a bench) to let the water flow down towards the nutrient return pipe. The excess nutrient solution will flow out of this pipe and move into another channel or tube, where it is recirculated through the system again. Therefore, there will be no waste of water.</p> <p>The closest residence is 178 feet from the proposed location. The proposed project will have no impact on Wastewater / Sanitary Sewers.</p>
Water Supply	2	The proposed project will not require an additional water supply. The water needed for the greenhouse will be provided by two 200-gallons water cisterns and it will be served by water from an existing P.R.A.S.A. intake in the property. The water connection is approximately 110 feet away and will be placed above ground. The

		proposed project will have a minor impact on the existing P.R.A.S.A.
Public Safety - Police, Fire and Emergency Medical	2	The project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor, and a Transit vehicle for an agricultural site and will have no impact on Public Safety.
Parks, Open Space and Recreation	2	The proposed project will have no impact to Parks, Open Space and Recreation. The property being used is agricultural and it will continue as agricultural use.
Transportation and Accessibility	2	The project consists of the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor, and a Transit vehicle for an agricultural site and will have no impact on transportation and accessibility.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	The proposed project will be situated on previous agriculture property and will have no impact to unique natural features or water resources.
Vegetation, Wildlife	2	The proposed project will occur on land previously used for agricultural purposes and will continue in that capacity. There may be wildlife attracted to the new greenhouse but no negative impact on wildlife.
Climate Change	2	The Re-Grow Program proposed project aims to increase resiliency in the agricultural industry to prepare for future climate related disasters. The project will not contribute to climate change and will provide a minor net benefit by allowing for increased food production.

Additional Studies Performed: Not applicable.

Field Inspection (Date and completed by): August 29, 2023, Jaqueline Lopez, SOI- Qualified Archaeologist

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

FAA, National Plan for Integrated Airport Systems:

www.faa.gov/airports/planning_capacity/npias/reports/NPIAS-Report-2017-2021-Appendix-B-Part6.pdf

John H. Chafee Coastal Barrier Resources System, Puerto Rico map.

www.fws.gov/CBRA/Maps/Locator/PR.pdf

National Park Service, National Registry of Natural Landmarks.

www.nature.nps.gov/nnl/docs/NNLRegistry.pdf

US Fish and Wildlife Service, Wild and Scenic Rivers – correspondence to Agency on October 16, 2018

National Wild and Scenic Rivers System: www.rivers.gov/puerto-rico.php

Puerto Rico Community Development Block Grant Disaster Recovery Action Plan, July 2018. www.cdbg-dr.pr.gov/en/action-plan/

Programmatic Agreement among the Federal Emergency Management Agency, the Puerto Rico State Historic Preservation Office and the Central Office for Recovery, Reconstruction and Resilience – amended to include the Puerto Rico Department of Housing.

Sierra Research for Office of Mobile Sources. US Environmental Protection Agency. Report No. SR93-03-02, Evaluation of Methodologies to Estimate Nonroad Mobile Source Usage, March 19, 1993: <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9100UR51.txt>

US Environmental Protection Agency, National Ambient Air Quality Standards, Nonattainment Areas for Criteria Pollutants (Green Book): www3.epa.gov/airquality/greenbook/anayo_pr.html

US EPA, Environmental Topics, Air Topics: www.epa.gov/environmental-topics/air-topics

US Fish and Wildlife Service, Environmental Conservation Online System:

<https://ecos.fws.gov/ecp0/reports/species-listed-by-state-report?state=PR&status=listed>

Federal Emergency Management Agency, Flood Mapping Service:

<https://msc.fema.gov/portal/home> (compilation of numerous maps)

Puerto Rico Planning Board, Communication regarding Floodplain Management, November 29, 2018.

US Fish and Wildlife Service, National Wetlands Inventory:

www.fws.gov/wetlands/data/mapper.html (compilation of numerous maps)

US Army Corps of Engineers, Jacksonville District, Antilles Section, Communication regarding Wetlands Management, November 13, 2018.

Puerto Rico Coastal Zone Management Program Plan, September 2009.

Puerto Rico Planning Board, Communication regarding Coastal Zone Management, November 16, 2018 (No response).

US EPA, Sole Source Aquifers. Esri HERE, Garmin, NOAA, USGS, EPA.

US Fish and Wildlife Service, Caribbean Ecological Services Field Office. E-mail communication regarding October 23, 2018 letter on Threatened and Endangered Species and Critical Habitats.

NOAA Fisheries / National Marine Fisheries Service, NEPA Coordinator Southeast Regional Office. Communication on October 16, 2018 regarding designated critical habitat. (No response).

US Geological Survey, Data Release of May Showing Concentration of Landslides Caused by Hurricane Maria, <https://doi:10.5066/F7JD4VRF>

List of Permits Obtained: None required.

Public Outreach [24 CFR 58.43]: Puerto Rico Department of Agriculture has worked closely with the agricultural community. This project will include a FONSI/NOI-RROF in compliance with NEPA regulations for HUD.

Cumulative Impact Analysis [24 CFR 58.32]: In accordance with 24 CFR 58.32 (Aggregation), there are no cumulative impacts associated with the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor, and a Transit vehicle for an agricultural site.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

The Regrow Program purpose is to enhance and expand agricultural production related to economic revitalization and sustainable development activities while promoting and increasing food security island wide. The Alternative action would mean that the applicant would consider other locations for the new greenhouse. However, other locations may result in tree clearing prior to construction and/or need to fill in some steep area. Any option that requires going off-site would not contribute to the improvement and growth of agricultural production or enable economic development for this applicant.

No Action Alternative [24 CFR 58.40(e)]:

The 'No-Action' alternative would mean that the applicant would not receive federal funding to provide the purchase and installation of a 20' x 100' greenhouse (includes: two 7' x 98' benches, two 200-gallon cisterns and two water pumps), a Tractor, and a Transit vehicle for an agricultural site which would inhibit the economic growth opportunity that the applicant would not otherwise have under the PRDOH Re-Grow Puerto Rico program. As a result, these owners may not be able to experience the growth needed to recover and expand their agriculture activities. A provision of the grant allows for economic development for businesses. The No-Action alternative would not allow for the economic development for this applicant.

Summary of Findings and Conclusions: The proposed activity has been found to not have any adverse effects on the environmental nor is there the requirement for further consultation with any agency. There are no environmental review topics addressed that result in the need for formal compliance steps or the requirement for mitigation.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	Soil suitability will be assessed prior to construction. Contractors will be required to use BMPs during construction if erosion impacts occur. DNER authorization may be required for any ground disturbance associated with the activities in the proposed project.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	The proposed project does not involve the removal of trees. If any activity proposes the removal of vegetation, the project must be reviewed for any impacts to endangered or threatened species. If a Puerto Rican Boa is found in the project activity site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the Construction Manager shall contact the Puerto Rico Department

	of Natural and Environmental Resources and ask for them to relocate the Boa.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Standard BMPs should be applied to mitigate impact on wetlands.

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]


The project will not result in a significant impact on the quality of the human environment.

Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature: _____  _____ Date: 4/15/2024

Name/Title/Organization: Patricia Carmenatty / Environmental Specialist/ Behar Ybarra & Associates LLC

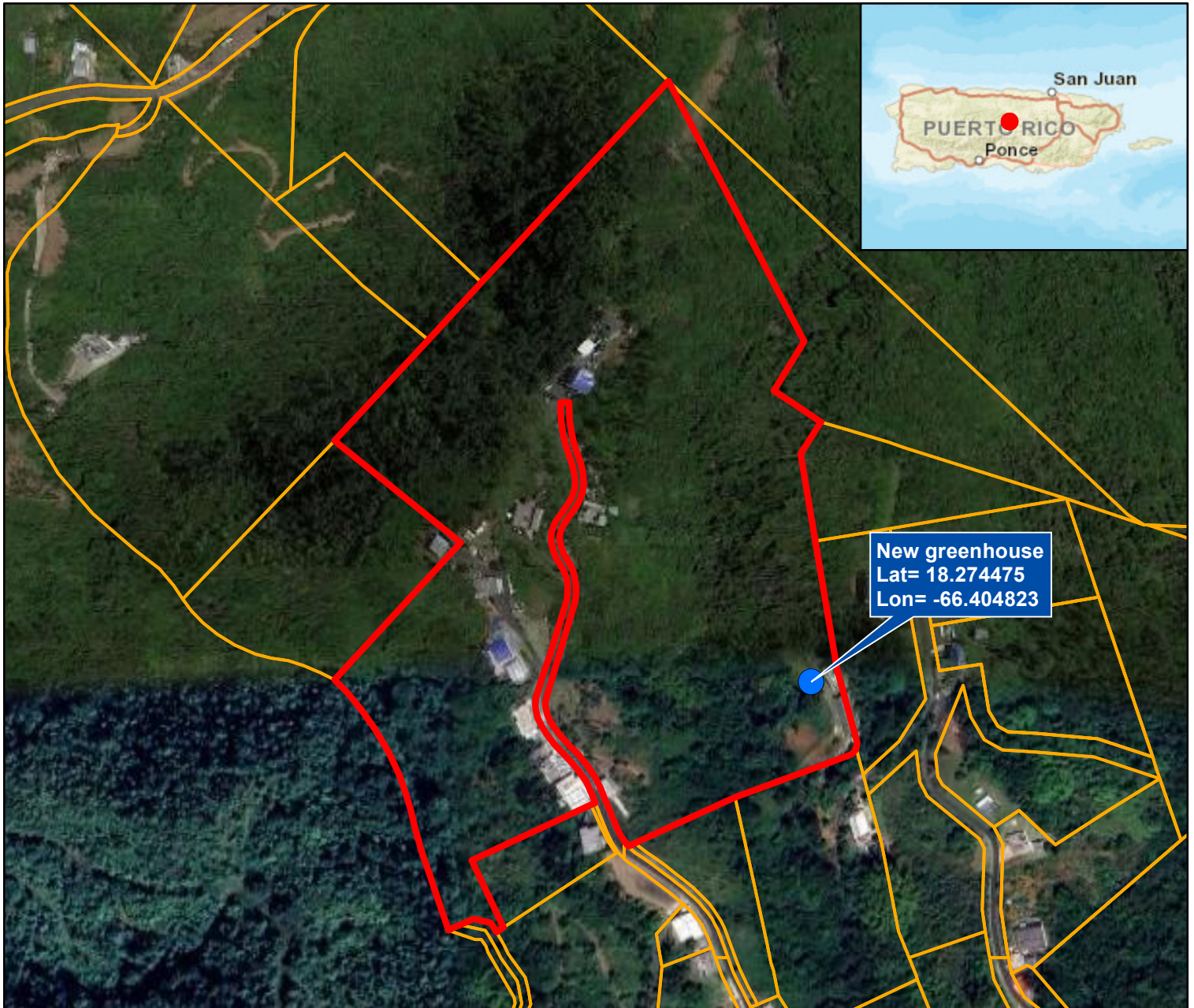
Certifying Officer Signature: _____  _____ Date: April 17, 2024

Name/Title: I. Lorenzo, Permits and Environmental Compliance Specialist

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

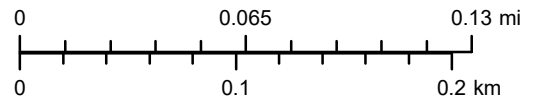
Figures

Location: Aerial Map
Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946
- ▭ PR-RGRW-03946 Parcel
- ▭ CRIM Parcels



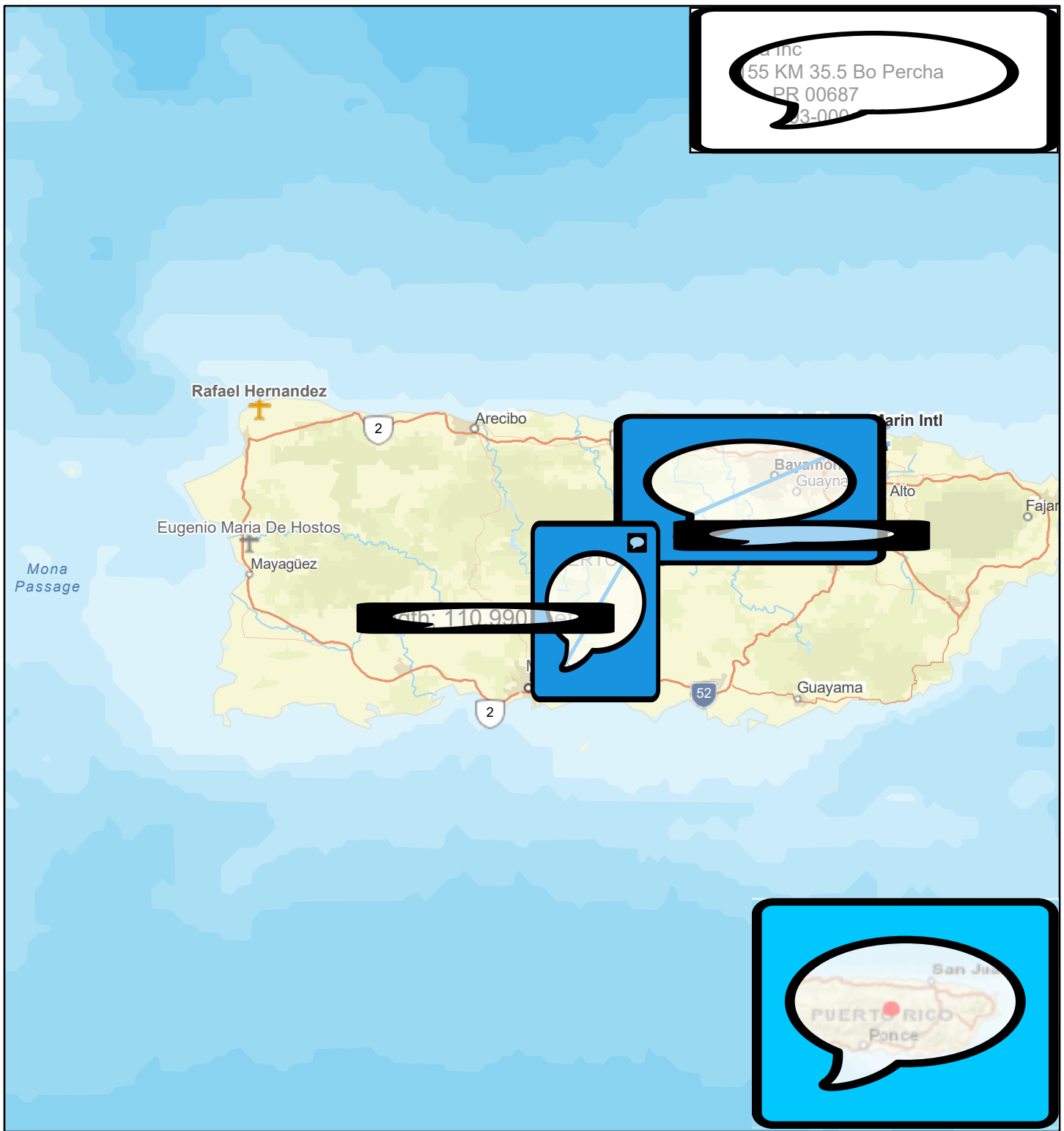
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community and Google Earth



Source

Centro de Recaudación de Ingresos Municipales (CRIM)
<https://catastro.crimpr.net/cdprpc/>

55 KM 35.5 Bo Percha
PR 00687
23-000



4/13/2023, 11:48:31 AM

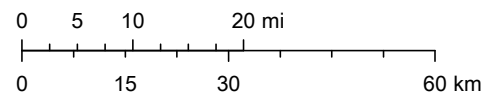
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Accident Potential Zone

- Override 1
- Override 2
- Override 3

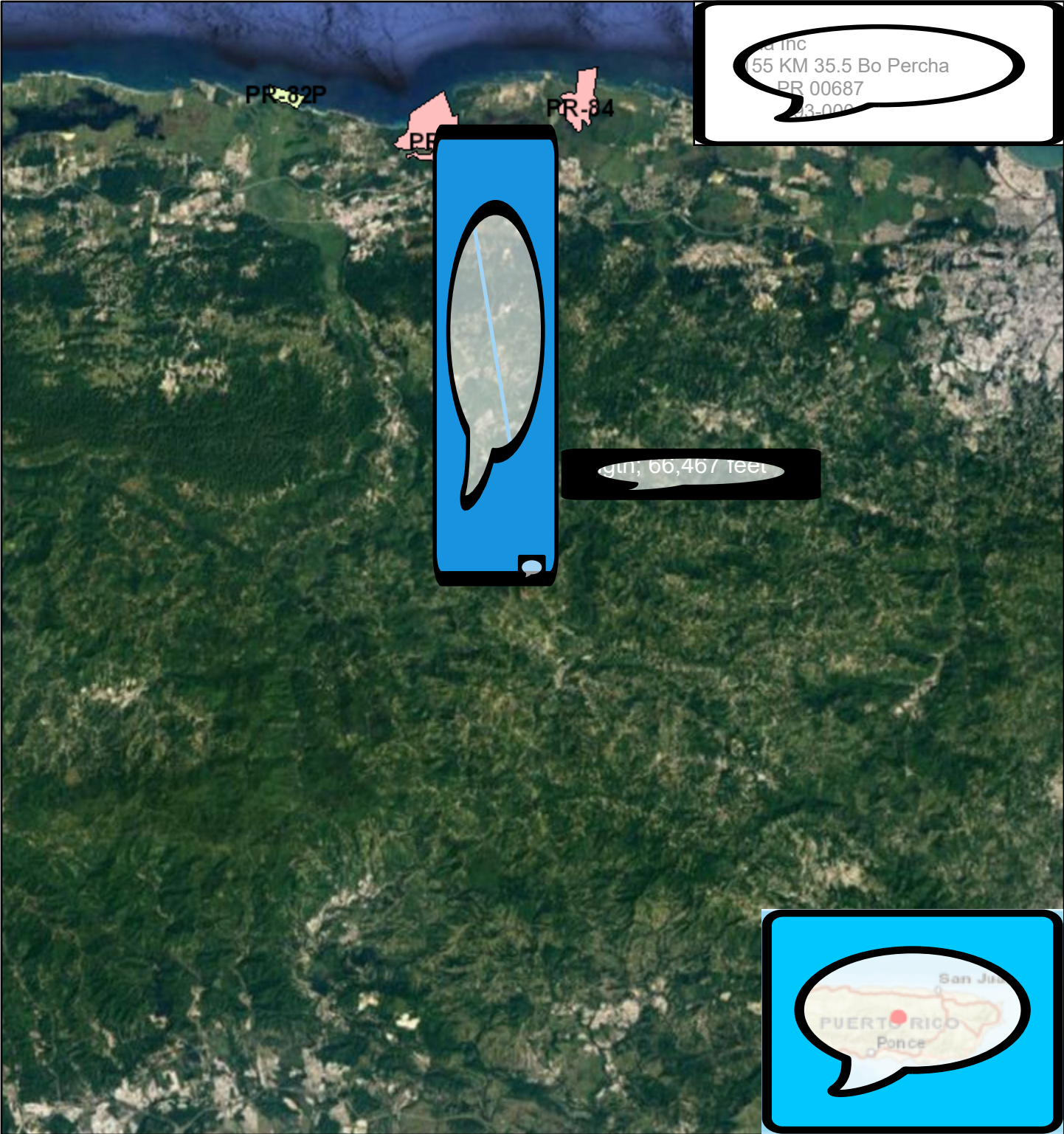
- USA Military Airports
- USA Civil Airports

PR-RGRW-03946



Protection Zones
Military Airports

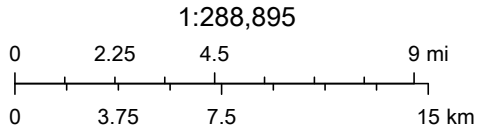
Federal Aviation Administration (FAA)
faa.gov



8/8/2023, 12:09:55 PM

CBRS Units

- Otherwise Protected Area
- System Unit



National Flood Hazard Layer FIRMette



66°24'35"W 18°16'44"N

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE) *Zone A, V, A99*
 - With BFE or Depth *Zone AE, AO, AH, VE, AR*
 - Regulatory Floodway

- OTHER AREAS OF FLOOD HAZARD**
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
 - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
 - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
 - Area with Flood Risk due to Levee *Zone D*

- OTHER AREAS**
 - NO SCREEN Area of Minimal Flood Hazard *Zone X*
 - Effective LOMRs
 - Area of Undetermined Flood Hazard *Zone D*

- GENERAL STRUCTURES**
 - Channel, Culvert, or Storm Sewer
 - Levee, Dike, or Floodwall

- OTHER FEATURES**
 - Cross Sections with 1% Annual Chance Water Surface Elevation 20.2
 - Coastal Transect 17.5
 - Coastal Transect
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
 - Coastal Transect Baseline
 - Profile Baseline
 - Hydrographic Feature

- MAP PANELS**
 - Digital Data Available
 - No Digital Data Available
 - Unmapped

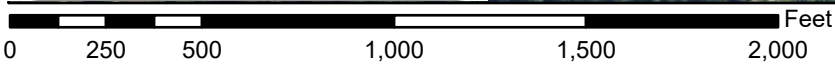
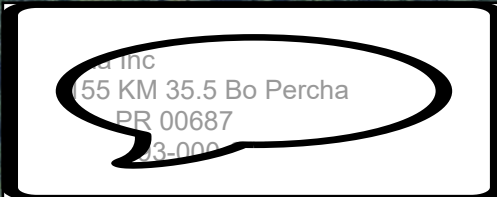


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/10/2023 at 10:22 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



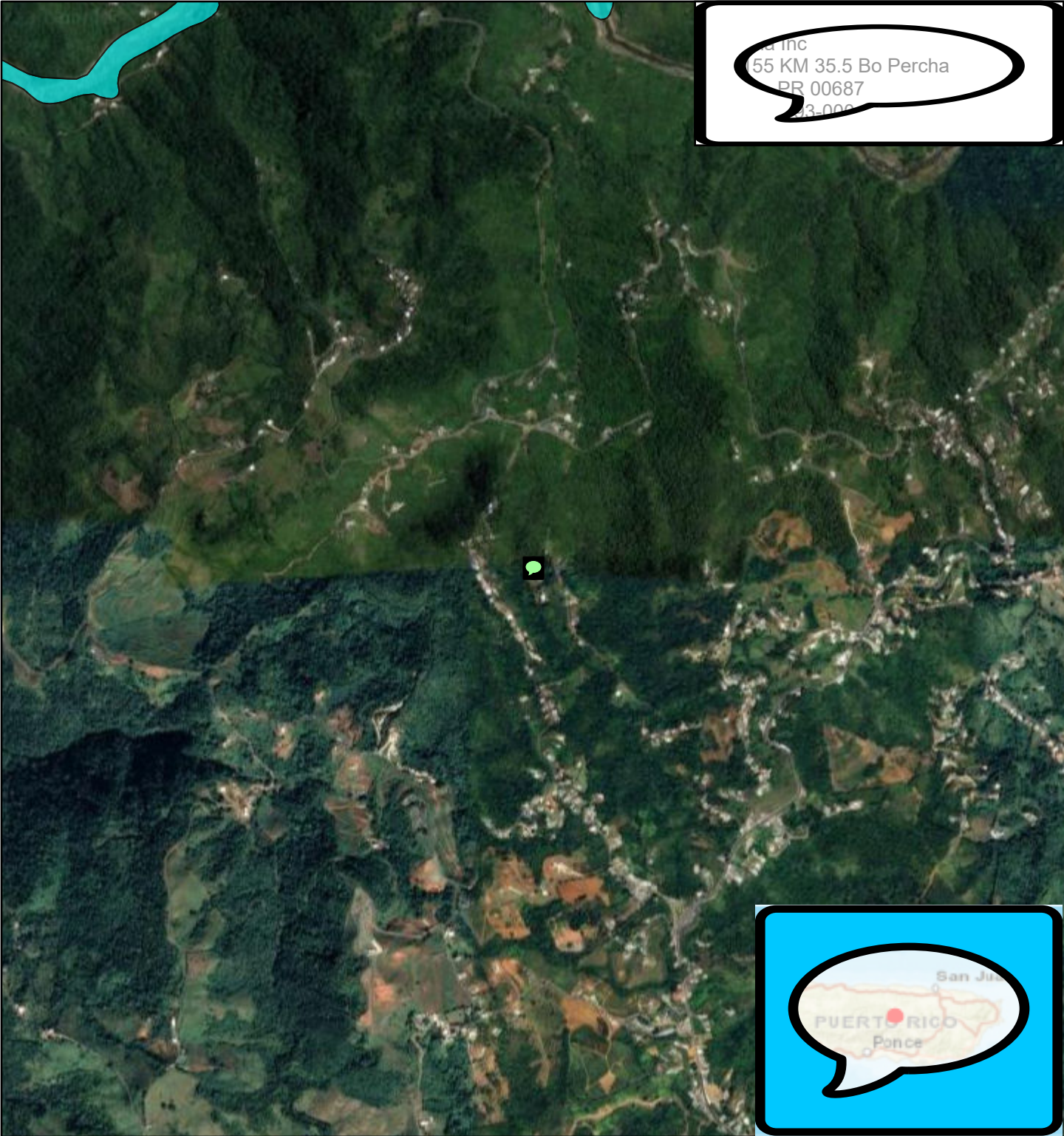
1:6,000

66°23'58"W 18°16'10"N

Basemap Imagery Source: USGS National Map 2023



PR-RGRW-03946 Flood Hazard

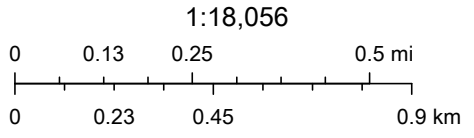
Inc
55 KM 35.5 Bo Percha
PR 00687
73-000



10/5/2023, 11:40:32 AM

FEMA_FIRM - FEMA_FLOOD_HAZARD_AREAS

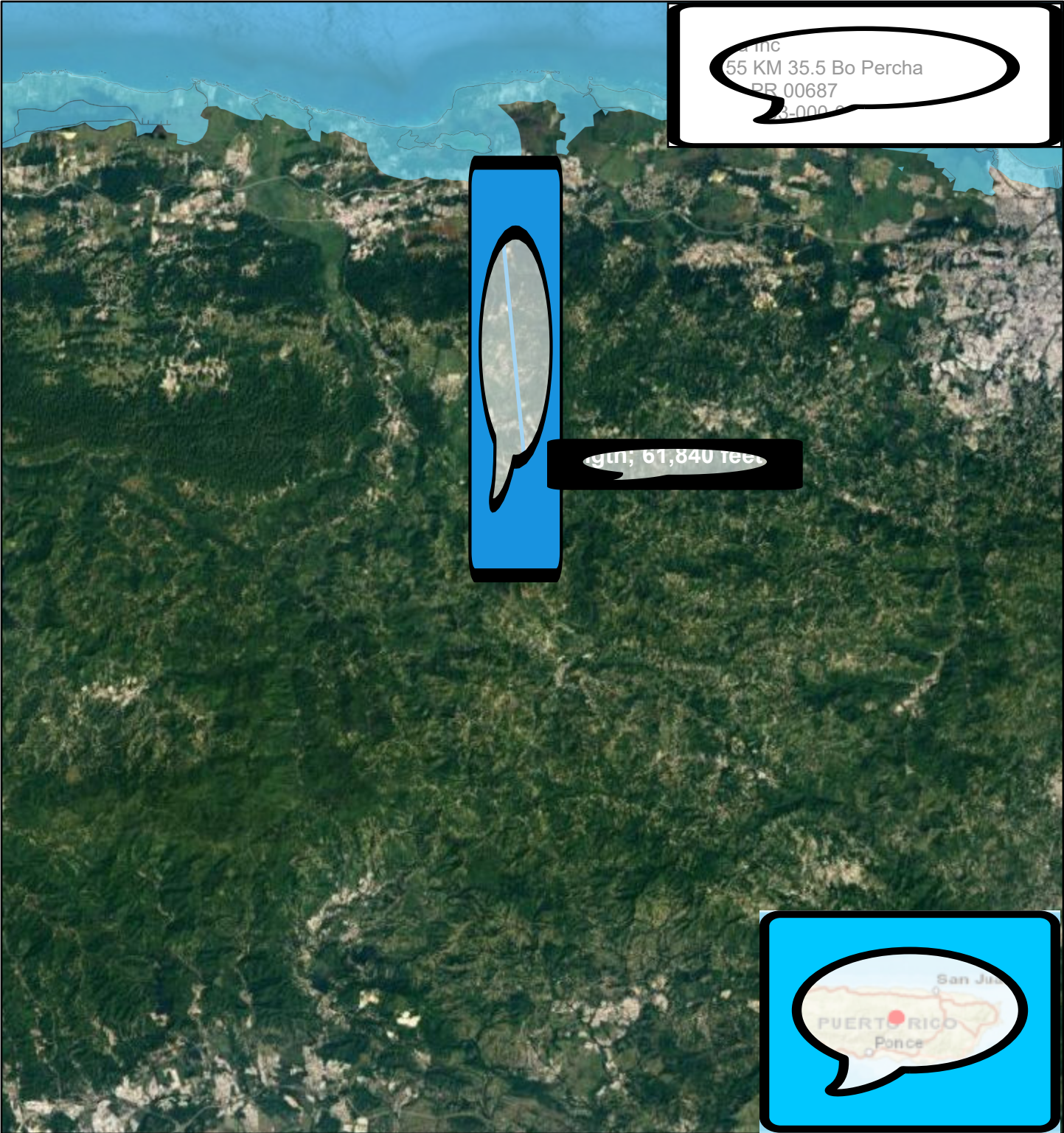
-  Special Flood Hazard Areas
-  Other Areas



 PR-RGRW-03946

Emergency Management Agency (FEMA)
National Flood Hazard Layer
www.fema.gov/nfl

PR-RGRW-03946 CZM



... Inc
55 KM 35.5 Bo Percha
PR 00687
3-000-6



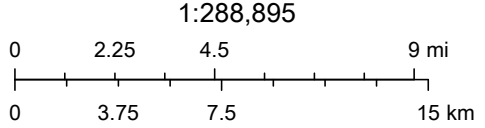
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8/10/2023, 10:39:04 AM

Coastal Zone Management

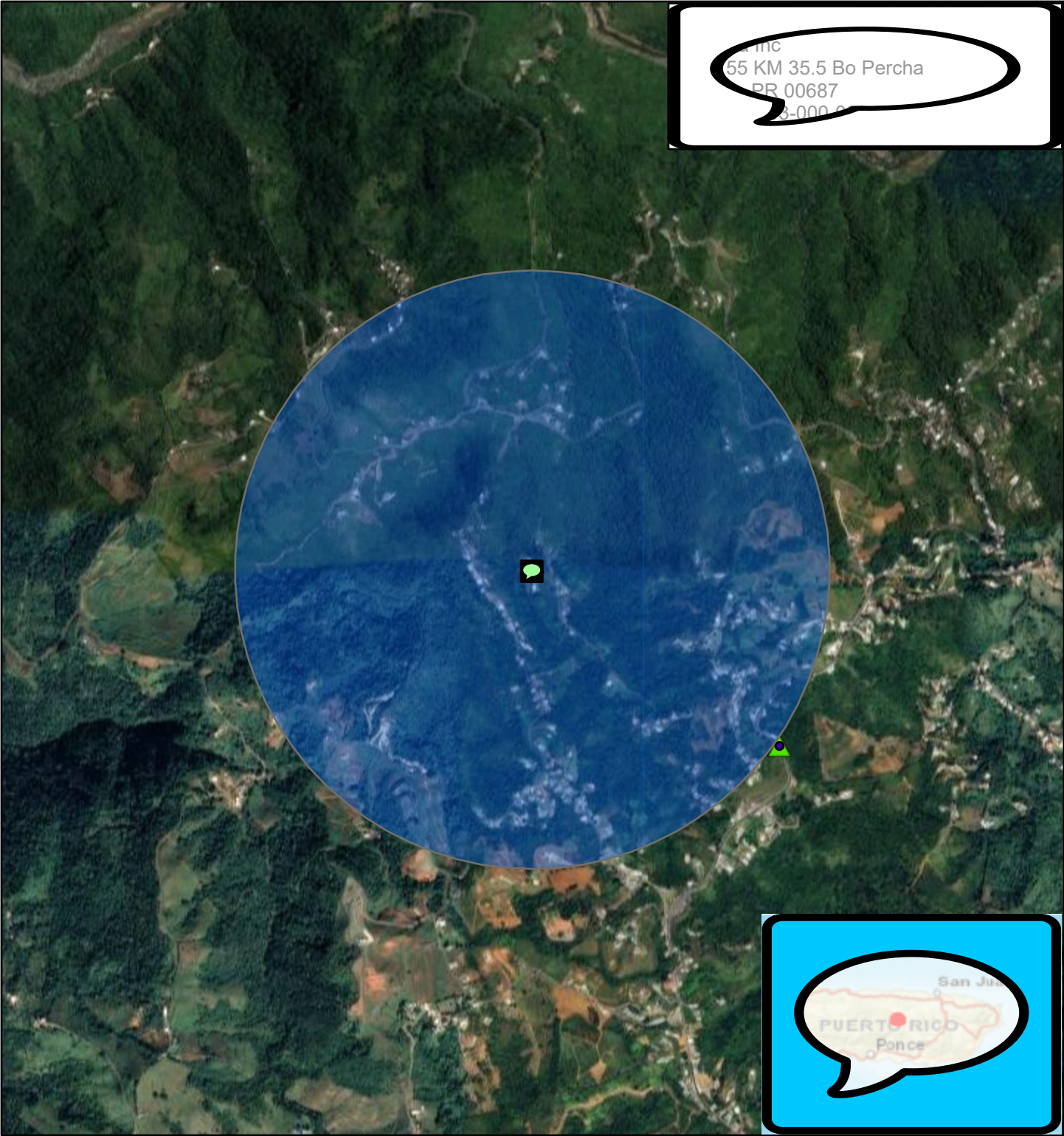
RGRW-039




... al Oceanic and Atmospheric Administration
... fice for Coastal Management (NOAA/OC
... eries pro

PR-RGRW-03946 Toxic

...inc
55 KM 35.5 Bo Percha
PR 00687
3-000 6



8/10/2023, 10:57:00 AM

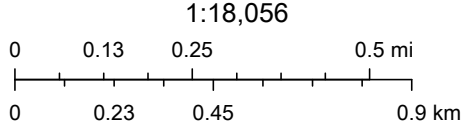
 3000ft_Buffer_of_03946 - BufferedFeatures

 FACILITY INTERESTS

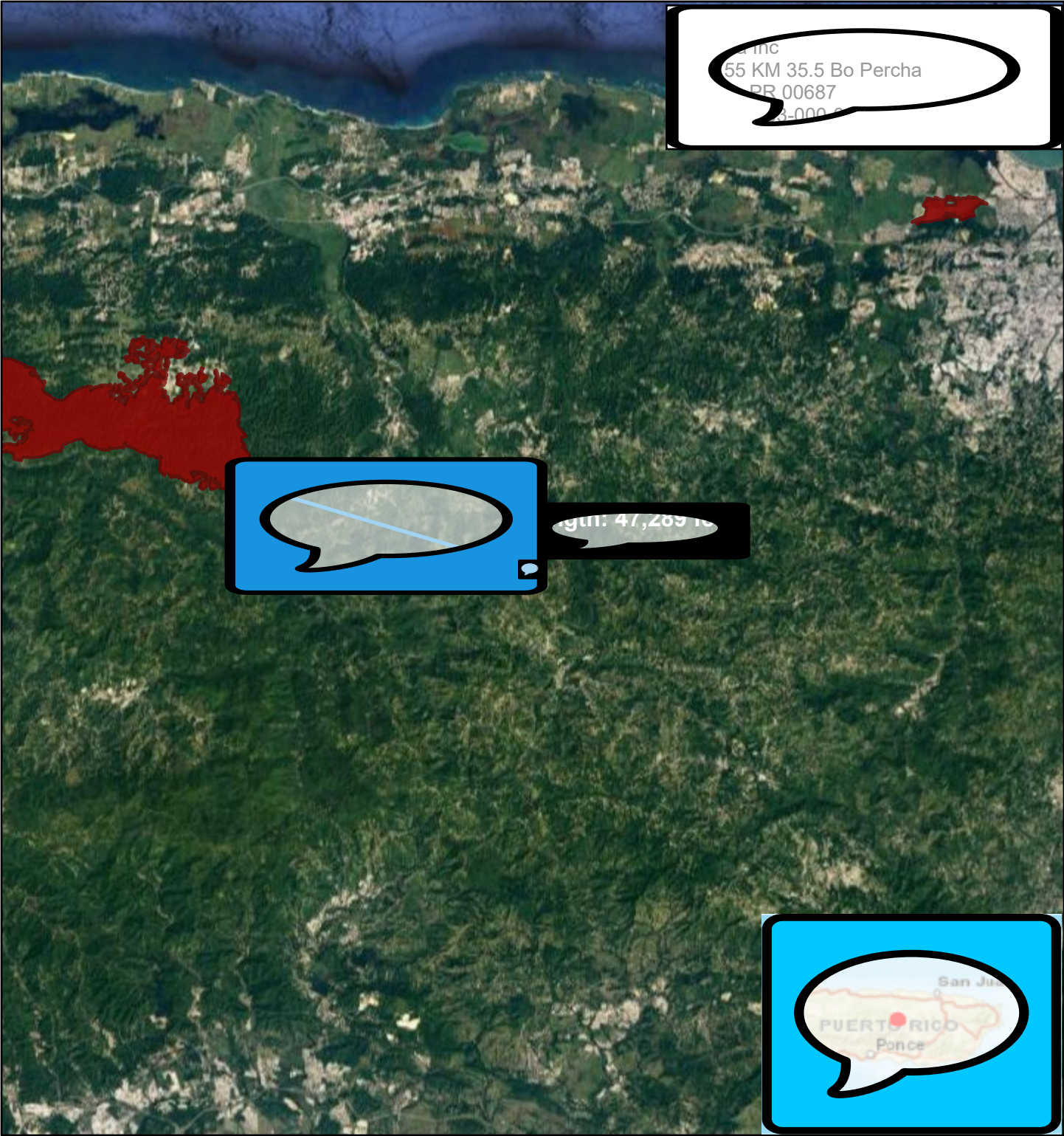
 RCRA

 RCRA INACTIVE



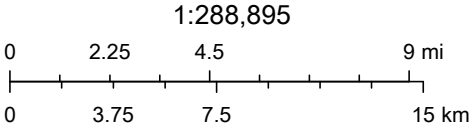
Environmental Protection Agency (EPA)
Registry Service (FRS)



8/10/2023, 11:03:17 AM

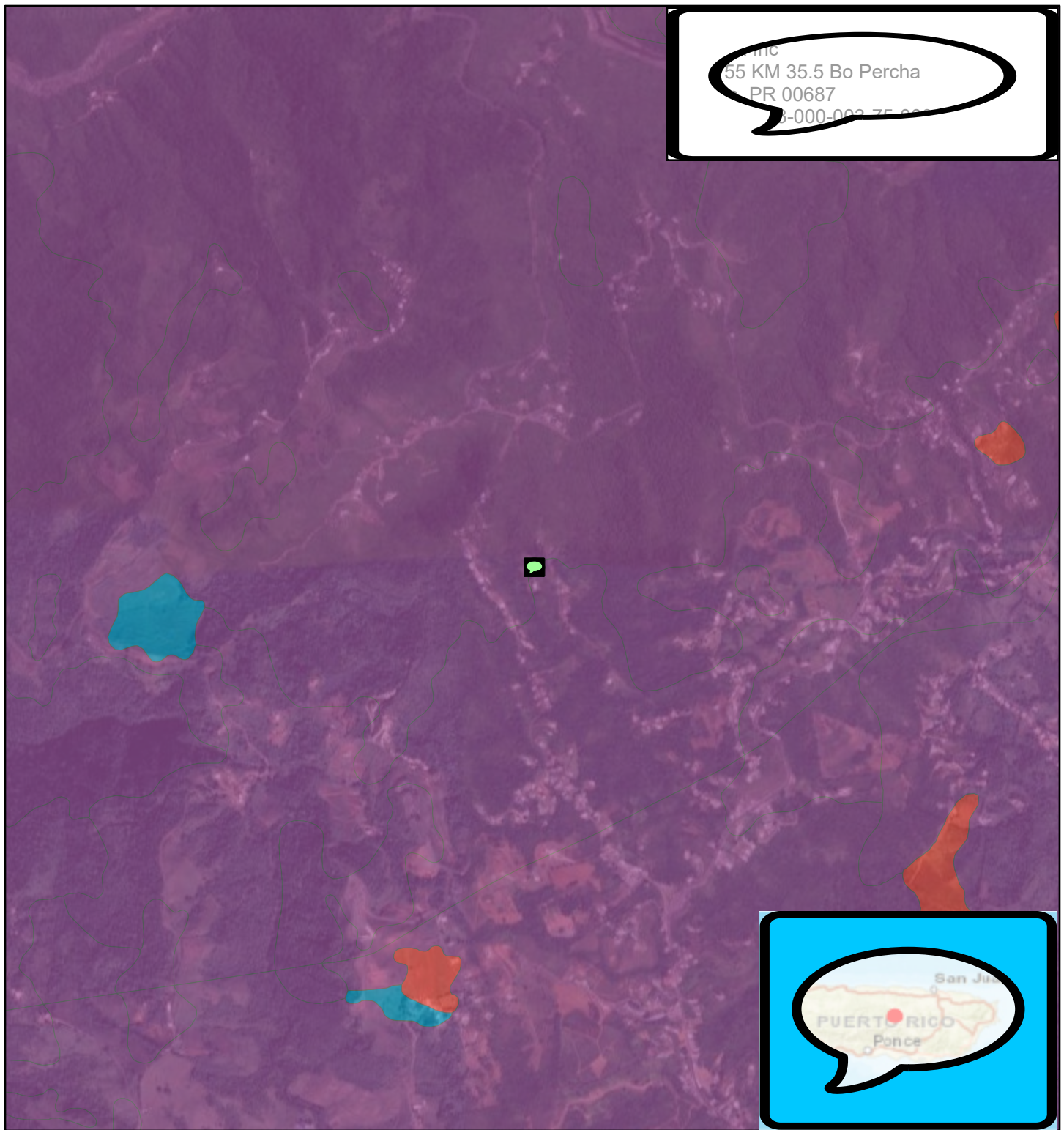
 USFWS Critical Habitat - Final



Department of the Interior
Bureau of Land Management
Office of Oceanic and Atmospheric Administration
Conservation and Restoration

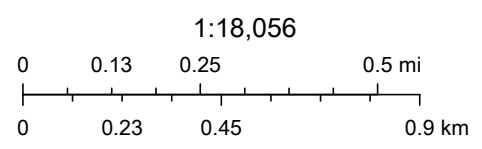
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PR 00687
000-000-75-000



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Farmland Protection

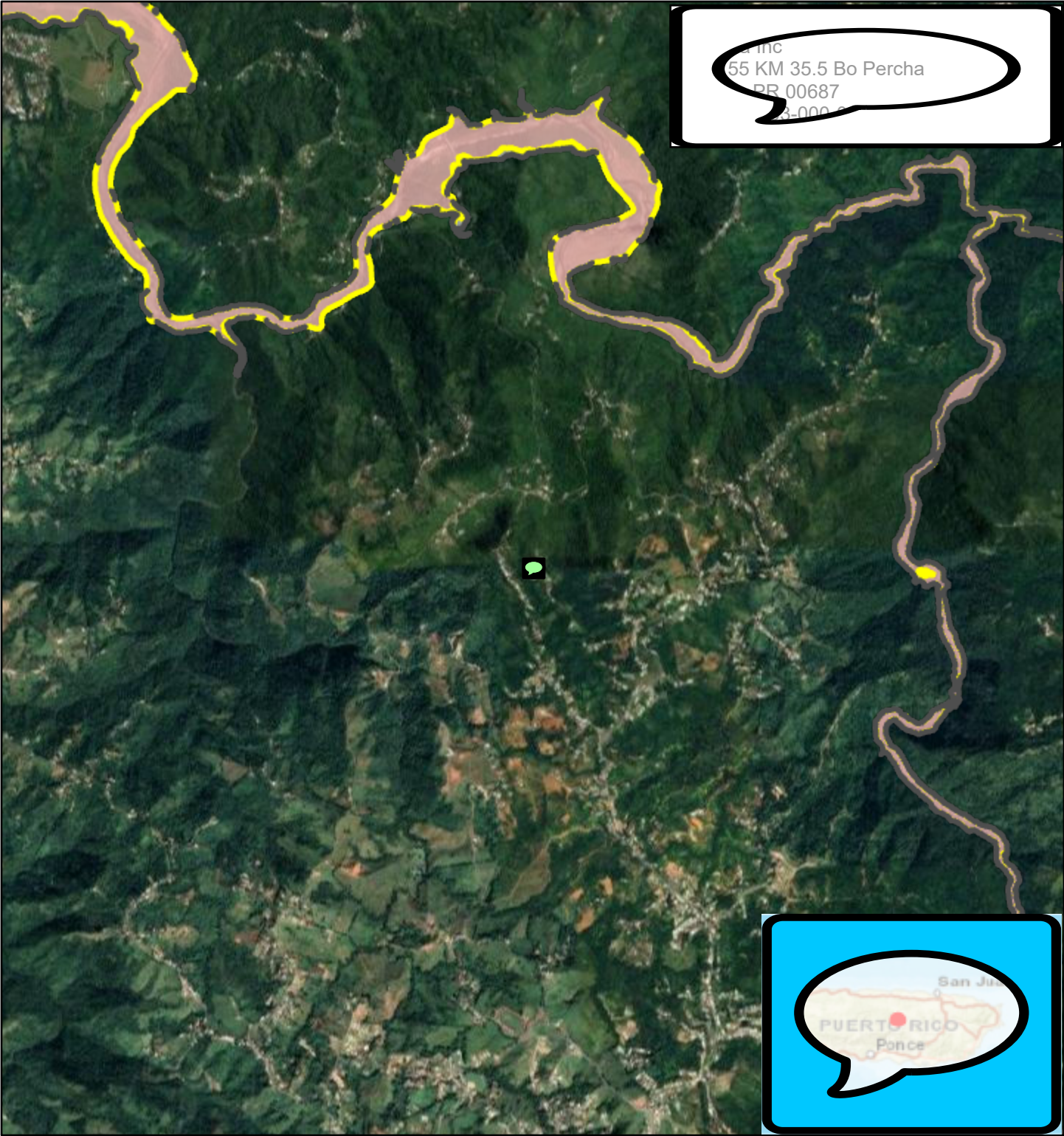
- All areas are prime farmland
- Farmland of statewide importance
- Not prime farmland



Resources Conservation Service (NRCS)
Survey Geographic Database (gSSURGO)

RGRW-039

inc
55 KM 35.5 Bo Percha
PR 00687
3-000



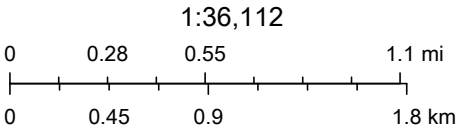
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Flood Hazard Zone

- A
- X 0.2% Annual Chance Flood
- Zone/BFE Boundary

Flood Hazard Extent

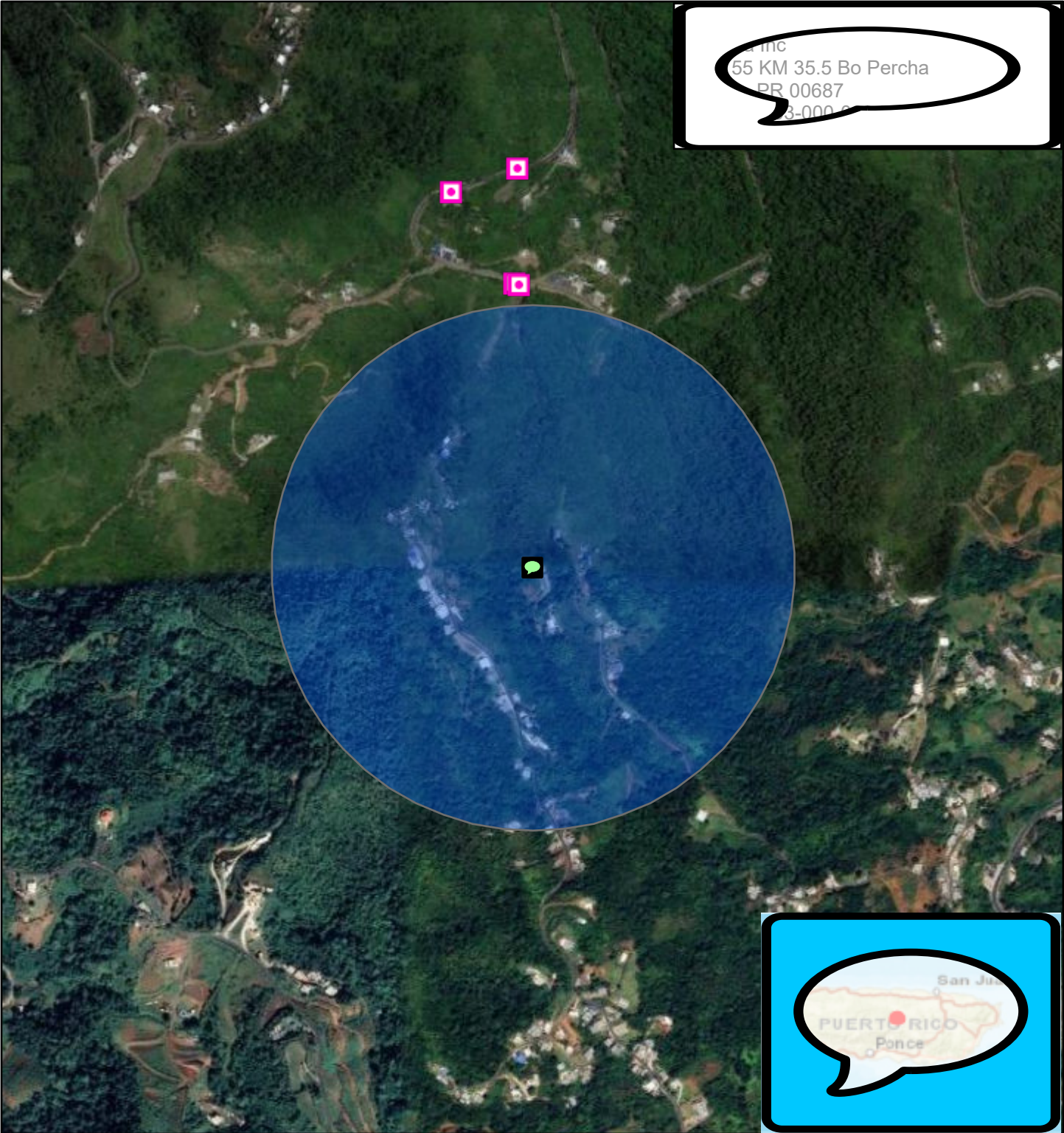
- 1% Annual Chance Flood
- 0.2% Annual Chance Flood



1:36,112

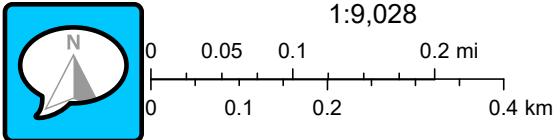


INC
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PR 00687
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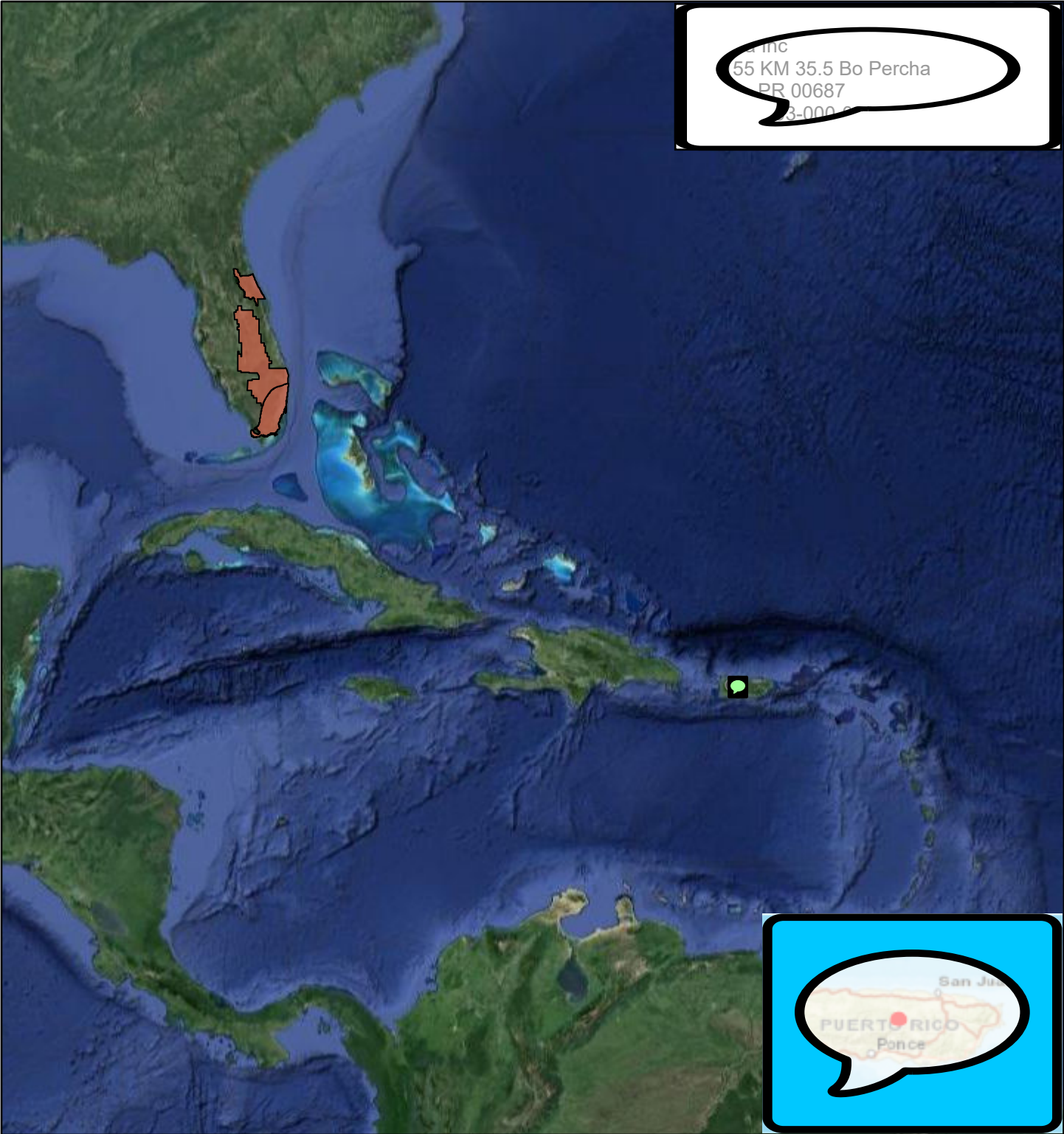
- Buffer of 0.25 miles of 03946
- Cultural_Resources - Cultural Value Places
- RGRW-030




National Park Service (NPS) - National Register of Historic Places
<https://www.nps.gov/subjects/nationalregister/index.htm>
Registration Office

PR-RGRW-03946 Sole Source Aquifers

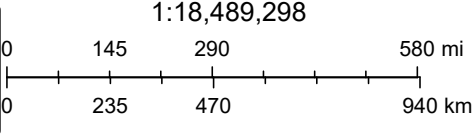
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PR 00687
73-000



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 EPA_Sole_Source_Aquifers

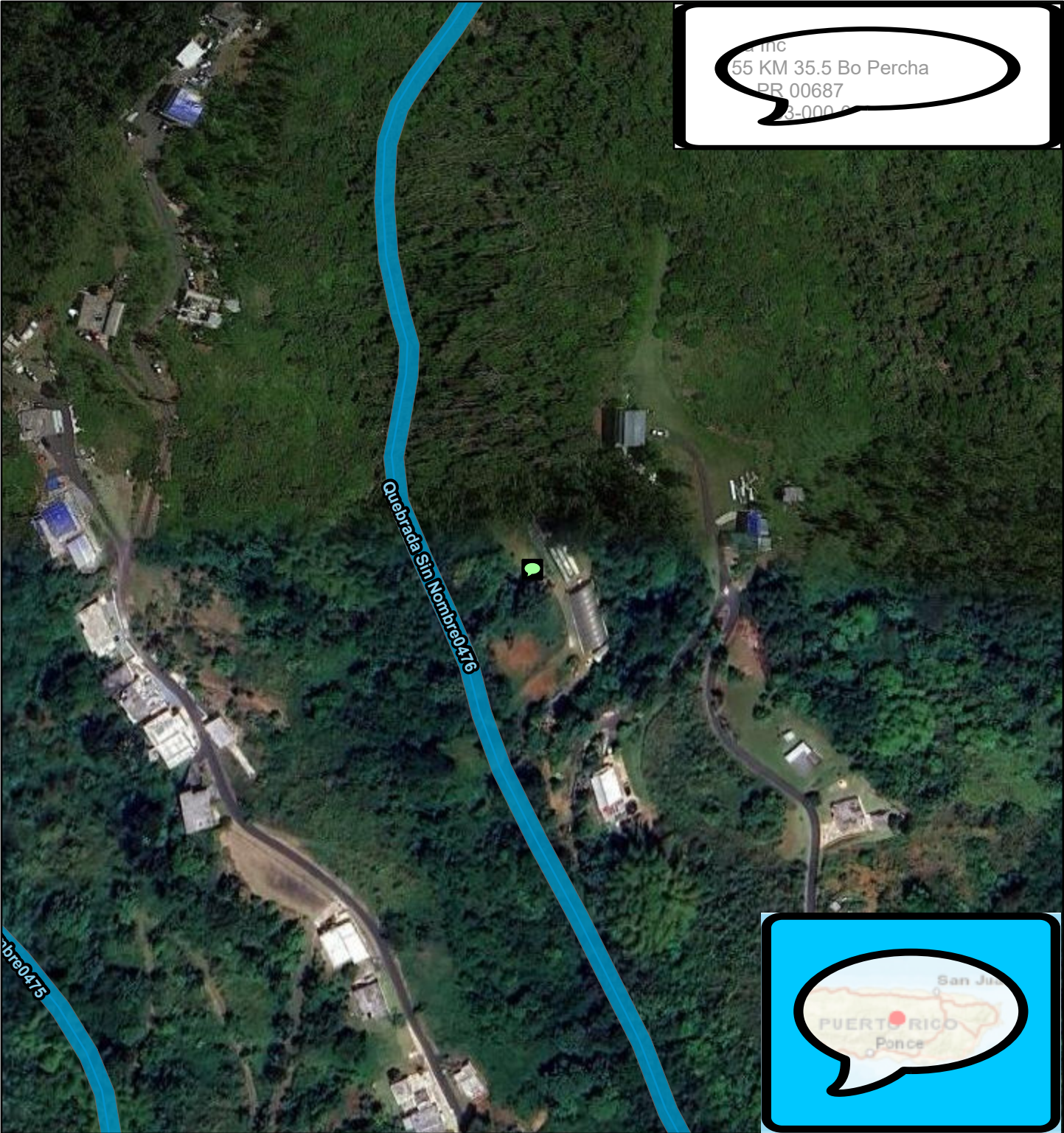
 



Source

U.S. Environmental Protection Agency
<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>


INC
55 KM 35.5 Bo Percha
PR 00687
3-000



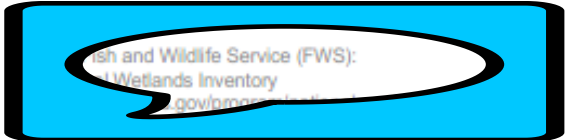
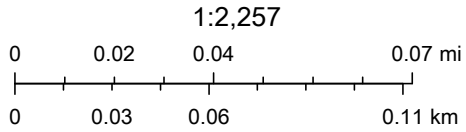
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WETLANDS - National Wetlands Inventory

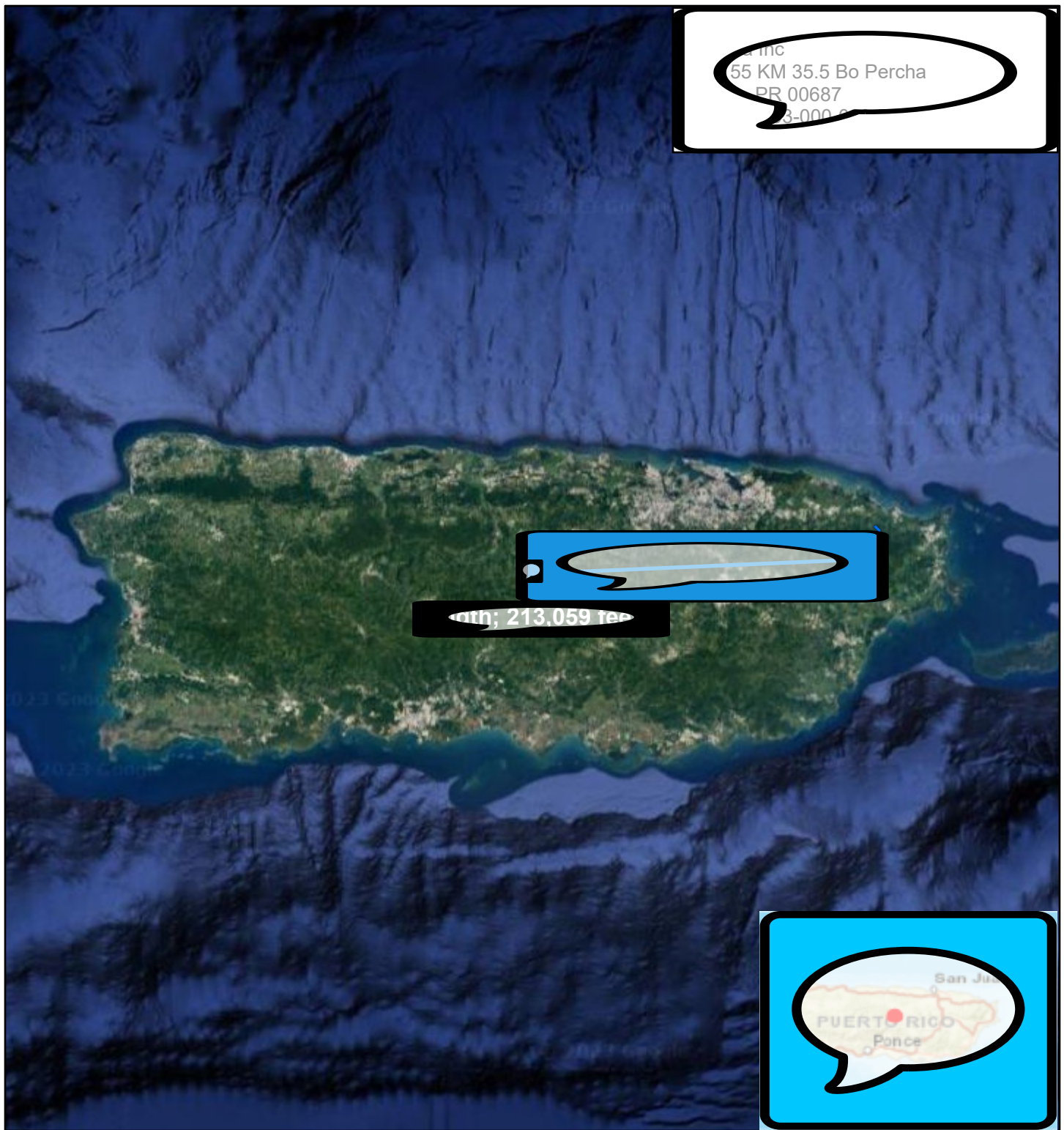
 Riverine

 Hidrografia - Oficina Plan de Agua



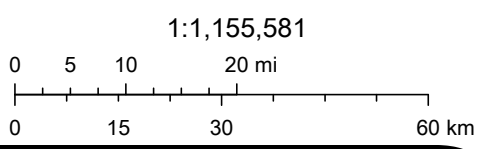
PR-RGRW-03946 Wild and Scenic Rivers



8/10/2023, 11:39:17 AM

— National Wild and Scenic River Line

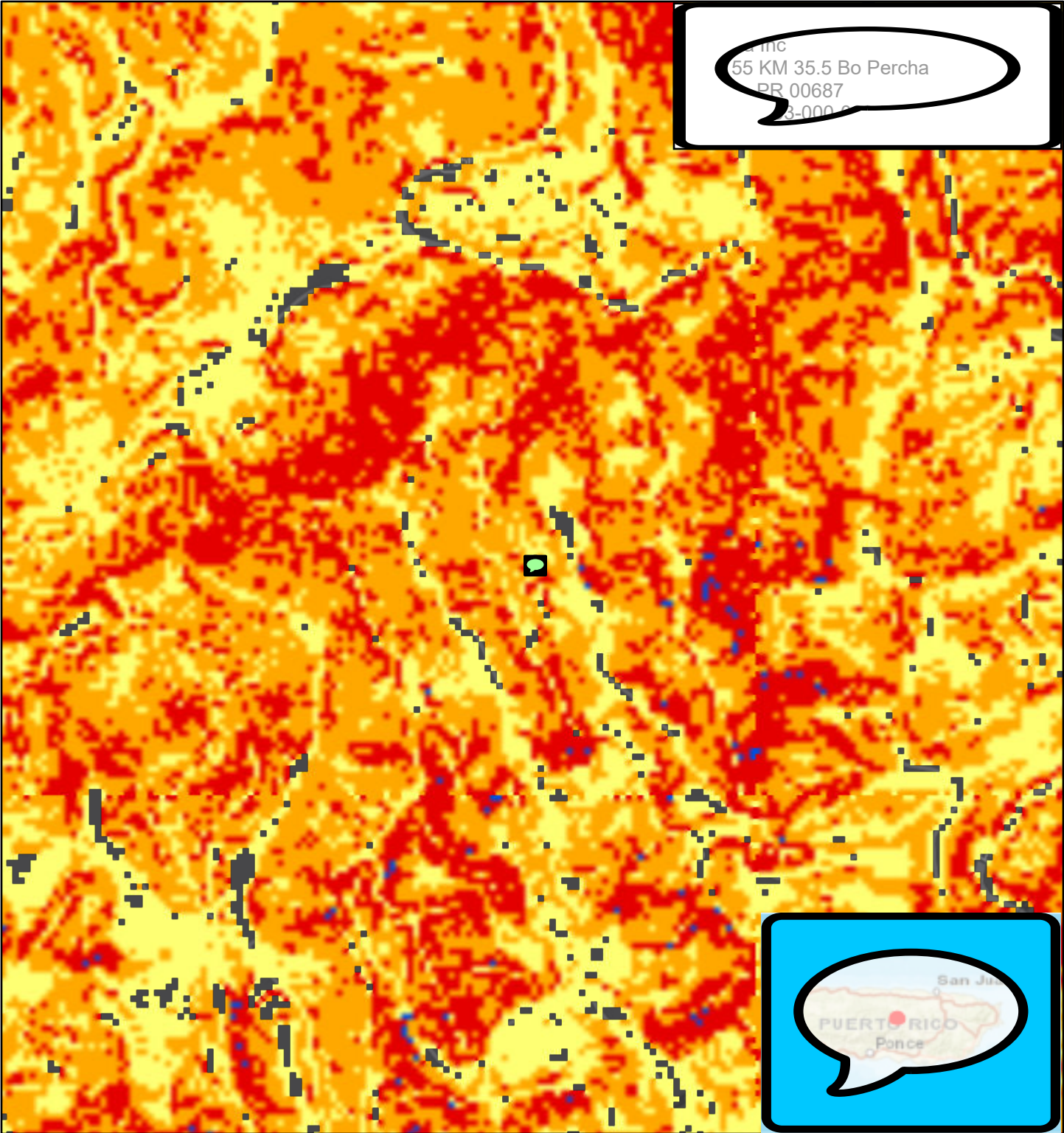
PR-RGRW-03946



Fish and Wildlife Service (FWS)
Wild and Scenic Rivers System

PR-RGRW-03946 Landslide

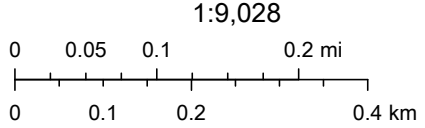
INC
55 KM 35.5 Bo Percha
PR 00687
3-000



8/10/2023, 11:41:28 AM

Landslide Susceptibility

- High
- Very High
- Extremely High
- Low
- Moderate



1:9,028



Emergency Basemap service.

Appendix 1



GOVERNMENT OF PUERTO RICO
STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio-Cancela | carubio@prshpo.pr.gov

September 27, 2023

Lauren Bair Poche

HORNE

10000 Perkins Rowe, Suite 610, Bldg G
Baton Rouge, LA 70810

SHPO 09-15-23-03 SECTION 106 NHPA EFFECT DETERMINATION SUBMITTAL:
PR-RGRW-03946- ZOEMMA INC.- CARR. 155, KM 35.5, BO. PERCHA, MOROVIS,
PUERTO RICO

Dear Ms. Bair,

Our Office has received and reviewed the above referenced project in accordance with 54 U.S.C. 306108 (commonly known as Section 106 of the *National Historic Preservation Act*) and 36 CFR Part 800: *Protection of Historic Properties*.

Our records support your finding of **no historic properties affected** for this undertaking.

Please note that should you discover other historic properties at any point during project implementation, you should notify the SHPO immediately. If you have any questions regarding our comments, please do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MB



September 15, 2023

Carlos A. Rubio Cancela
State Historic Preservation Officer
Puerto Rico State Historic Preservation Office
Cuartel de Ballajá (Tercer Piso)
San Juan, PR 00902-3935

Puerto Rico Disaster Recovery, CDBG-DR Re-Grow PR Urban-Rural Agricultural (Re-Grow PR) Program

Section 106 NHPA Effect Determination Submittal: PR-RGRW-03946 – Zoemma Inc. – Carr 155 Km 35.5, Bo. Percha, Morovis, Puerto Rico – *No Historic Properties Affected*

Dear Architect Rubio Cancela,

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, HORNE is providing information for your review and requesting your concurrence regarding the above-referenced projects on behalf of the Puerto Rico Department of Housing (PRDOH). On February 9, 2018, an allocation of Community Development Block Grant - Disaster Recovery (CDBG-DR) funds was approved by the United States Department of Housing and Urban Development (HUD) under the Federal Register Volume 83, No. 28, 83 FR 5844, to assist the Commonwealth of Puerto Rico in meeting unmet needs in the wake of Hurricanes Irma and Maria. On August 14, 2018, an additional \$8.22 billion recovery allocation was allocated to Puerto Rico under the Federal Register Volume 83, No. 157, 83 FR 40314. With these funding allocations, the Puerto Rico Department of Housing (Housing) aims to lead a comprehensive and transparent recovery for the benefit of Puerto Rico residents.

On behalf of PRDOH and the subrecipient, the Puerto Rico Department of Agriculture, HORNE is submitting documentation for activities proposed by Zoemma Inc at Carr 155 Km 35.5 in Bo. Percha in the municipality of Morovis. The proposed activities for PR-RGRW-03946, consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil. The new hydroponic system will be served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection.

Based on the submitted documentation, the Program requests a concurrence that a finding of no historic properties affected is appropriate for this proposed project.

Please contact me by email at lauren.poche@horne.com or phone at 225-405-7676 with any questions or concerns.


Kindest regards,



Lauren Bair Poche, M.A.

Architectural Historian, Historic Preservation Senior Manager

Attachments

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REgROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		
Applicant: Zoemma Inc.		
Case ID: PR-RGRW-03946		City: Morovis

Project Location: Carr 155 Km 35.5, Bo. Percha, Morovis, Puerto Rico 00687	
Project Coordinates: 18.274475 -66.404823	
TPID (Número de Catastro): 193-000-003-75-000	
Type of Undertaking: <input type="checkbox"/> Substantial Repair/Improvements <input checked="" type="checkbox"/> New Construction	
Construction Date (AH est.): n/a	Property Size (acres): 21.71

SOI-Qualified Archaeologist: Jaqueline López Meléndez
Date Reviewed: August 29, 2023


In compliance with Section 106 of the National Historic Preservation Act (NHPA), the Program is responsible for identifying historic properties listed in the NRHP and any properties not listed that would be considered eligible for listing that are located within the geographic area of potential effects (APE) of the proposed project and assessing the potential effects of its undertakings on these historic properties.

Project Description (Undertaking)

The proposed activities for PR-RGRW-03946, consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil. The new hydroponic system will be served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection. The project area is located at PR-155 km. 35.5, Bo. Percha within the Municipality of Morovis.

Area of Potential Effects

As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the Undertaking, the Program has determined that the direct APE for this project is the location of the new greenhouse plus a 15-meter buffer and the visual APE is the viewshed of the proposed project.

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REgROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	
Applicant: Zoemma Inc.	
Case ID: PR-RGRW-03946	City: Morovis

Identification of Historic Properties - Archaeology

Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior’s Professional Qualification Standards (36 CFR Part 61), shows that there are no reported archaeological sites, archaeological materials of significant cultural properties within a half-mile (0.50 miles) radius of the project location. The closest reported archaeological site to the PR-RGRW-03946 project area is MV-1 (SHPO: MR0100002) located 2.42 miles north. The proposed project is located in Morovis, at an elevation of 1,738 feet above sea level. Per the USGS/NRCS Web Soil Survey, the project area is within mapped soil series: Mucara. The project area APE is in MuF. The nearest water body is unnamed creek located 0.03 miles west and 0.16 miles east. The coast is approximately 14.76 miles north from the project area.

Within 0.50 miles radius of the project area no archaeological surveys have been conducted.


The project area does not have cultural resources that are listed either on the National Register of Historic Places (NRHP) or in a Traditional Urban Center or Historic District. On August 18, 2023, we visually inspected the project area. The project area is located in the rural mountainous area of Morovis. The greenhouse will be installed on a property located on a slope. The area is almost entirely covered with grasses. There is a small area of reddish soil. The soil in this area has been classified as Mucara clay, 40 to 60 percent slopes (MuF). This soil is moderately deep, very steep and well drained. It is on the side slopes and ridgetops of humid volcanic uplands. The permeability is moderate, and the available water capacity is low. Runoff is rapid. Natural fertility is medium. Slope and the depth to rock are main limitations of this soil for nonfarm development.

There are no cultural resource studies within a half-mile radius of the property.

The project area does not have cultural resources that are listed either on the National Register of Historic Places (NRHP) or in a Traditional Urban Center or Historic District.

Determination

The project area is not within or adjacent to the boundaries of a National Register of Historic Places (NRHP)-eligible or listed historic district or Traditional Urban Center. There are no reported archaeological materials or significant cultural properties within a half-mile radius of the proposed project location. There are no known archaeological sites or NRHP listed/eligible historic properties are within or adjacent to the property or the parcel in which the Area of Potential Effect of case PR-RGRW-03946 is located. The installation of the new greenhouse will have no impacts on the surface of the project area. The construction of

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REgROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	
Applicant: Zoemma Inc.	
Case ID: PR-RGRW-03946	City: Morovis

public roads and agricultural infrastructure has minimally impacted the surrounding terrain. Therefore, no impact to cultural properties is anticipated for this reconstruction project.

Recommendation (Please keep on same page as SHPO Staff Section)

The Puerto Rico Department of Housing requests that the Puerto Rico SHPO concur that the following determination is appropriate for the undertaking (Choose One):

- No Historic Properties Affected
- No Adverse Effect
 Condition (if applicable):
- Adverse Effect
 Proposed Resolution (if applicable)

This Section is to be Completed by SHPO Staff Only

The Puerto Rico State Historic Preservation Office has reviewed the above information and: <input type="checkbox"/> Concurs with the information provided. <input type="checkbox"/> Does not concur with the information provided.	
Comments: 	
Carlos Rubio-Cancela State Historic Preservation Officer	Date:



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Project (PR-RGRW-03946) Location – Area of Potential Effect Map (Aerial)

BYA BEHAR-YBARRA & ASSOCIATES LLC
CONSULTING ENGINEERS, ARCHITECTS AND PLANNERS
Corol. Sierra 1 Suite J-3, Calle Ponce 564, Atlixora, San Juan, PR, 00963 TEL:787/763-0200

Application ID: PR-RGRW-03946

Zoemma Inc
Carr 155 KM 35.5
Bo Percha

Morovis, PR 00687

Catastro: 193-000-003-75-000

Lat: 18.274475, Lon: -66.404823

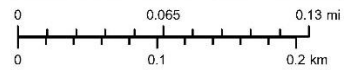
Area of Potential Effect

Puerto Rico Department of Housing ReGrow



Legend

-  PR-RGRW-03946 Applicant Structure
-  Area of Potential Effect
-  PR-RGRW-03946 Parcel
-  CRIM Parcels



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, Maxar, Earthstar Geographics, and the GIS User Community and Google Earth



Source

Centro de Recaudación de Ingresos Municipales (CRIM)
<https://catastro.crimpr.net/odprpc/>



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Project (PR-RGRW-03946) Location - Aerial Map

BYA BEHAR-YBARRA & ASSOCIATES LLC
CONSULTING ENGINEERS, ARCHITECTS AND PLANNERS

Ciudad, Iberia 1 Suite 410, Calle Percha 554, Altamira, San Juan, P.R. 00965 Tel: (787) 793-0293

Application ID: PR-RGRW-03946

Zoemma Inc

Carr 155 KM 35.5

Bo Percha

Morovis, PR 00687

Catastro: 193-000-003-75-000

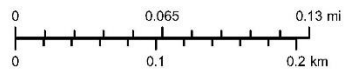
Lat: 18.274475, Lon: -66.404823

Location: Aerial Map
Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946
- PR-RGRW-03946 Parcel
- CRIM Parcels



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Source

Centro de Recaudación de Ingresos Municipales (CRIM)
<https://catastro.crimpr.net/cdprpc/>



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Project (PR-RGRW-03946) Location - USGS Topographic Map

BYA BEHAR-YBARRA & ASSOCIATES LLC
CONSULTING ENGINEERS, ARCHITECTS AND PLANNERS
Chond. Berria 1 Suite 2-5, Calle Percha 554, Aratoca, San Juan, P.R. 00920 TEL: (787) 793-0292

Application ID: PR-RGRW-03946

Zoemma Inc

Carr 155 KM 35.5

Bo Percha

Morovis, PR 00687

Catastro: 193-000-003-75-000

Lat: 18.274475, Lon: -66.404823

Location: USGS Topographic Map

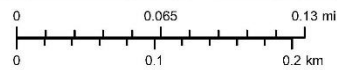
Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946
- PR-RGRW-03946 Parcel

Contour Interval 20 Feet



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



Source

United States Geological Survey (USGS)
National Geologic Map Database
https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html

Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Project (PR-RGRW-03946) Location – Soils Map

BYA BEHAR-YBARRA & ASSOCIATES LLC
CONSULTING ENGINEERS, ARCHITECTS AND PLANNERS
©2021, Borin 1 Suite J-3, Calle Paraiso 554, Ararima, San Juan, PR, 00900 Tel: (787) 793-0290

Application ID: PR-RGRW-03946

Zoemma Inc
Carr 155 KM 35.5
Bo Percha
Morovis, PR 00687
Catastro: 193-000-003-75-000
Lat: 18.274475, Lon: -66.404823

Soils Map

Puerto Rico Department of Housing ReGrow

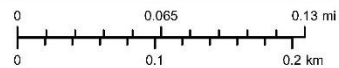


Legend

- PR-RGRW-03946
- PR-RGRW-03946 Parcel
- Soil Map Unit Symbol

Soil Map Unit Symbol

- HmF - Humatas clay, 40 to 60 percent slopes
- MuF - Mucara clay, 40 to 60 percent slopes



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, Maxar, Earthstar Geographics, and the GIS User Community and Google Earth

Source

Natural Resources Conservation Service (NRCS)
Gridded Soil Survey Geographic Database (gSSURGO)
<https://data.nal.usda.gov/dataset/soil-survey-geographic-database-ssurgo>



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Project (PR-RGRW-03946) Location with Previous Investigations - Aerial Map

BYA BEHAR-YBARRA & ASSOCIATES LLC
CONSULTING ENGINEERS, ARCHITECTS AND PLANNERS
Cond. Iberia 1, Suite J-3, Calle Ponce 564, Altamira, San Juan, PR, 00920 Tel: (787) 783-0280

Application ID: PR-RGRW-03946

Zoemma Inc

Carr 155 KM 35.5

Bo Percha

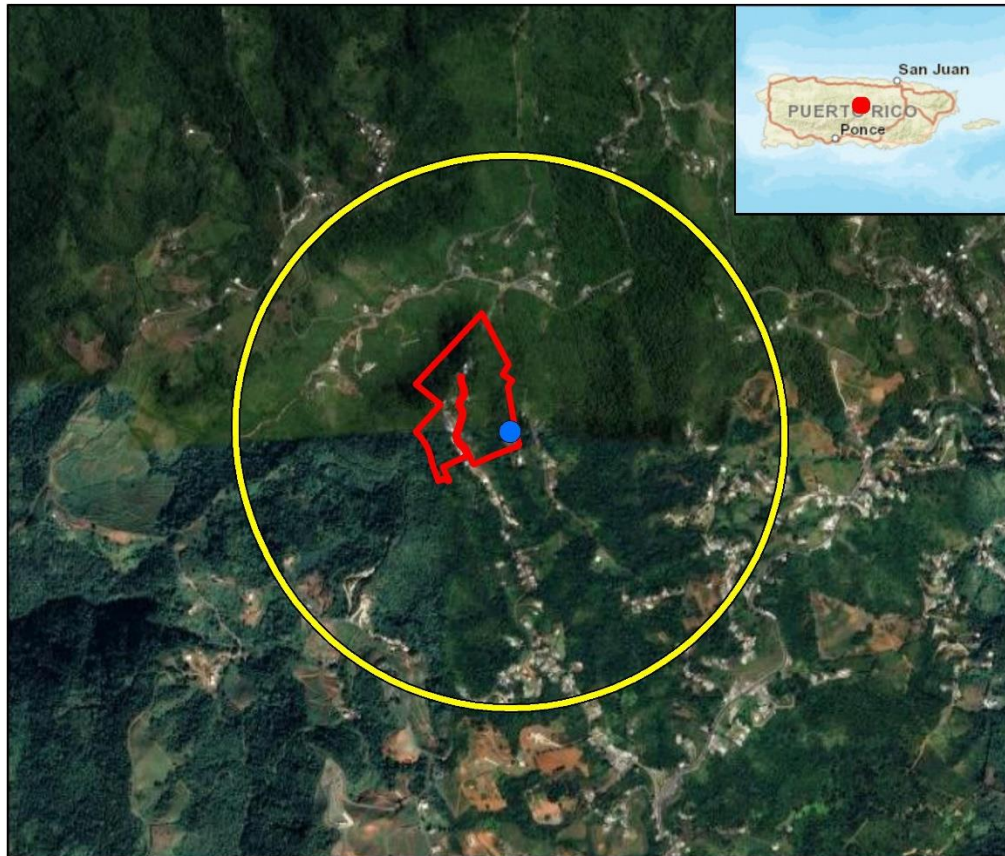
Morovis, PR 00687

Catastro: 193-000-003-75-000

Lat: 18.274475, Lon: -66.404823

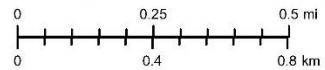
Previous Investigations: Aerial Map

Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946
- PR-RGRW-03946 Parcel
- 0.50 Mile (0.80 km) Buffer



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Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community and Google Earth



Source



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Project (PR-RGRW-03946) Location with Previous Investigations - Topographic Map



Application ID: PR-RGRW-03946

Zoemma Inc

Carr 155 KM 35.5

Bo Percha

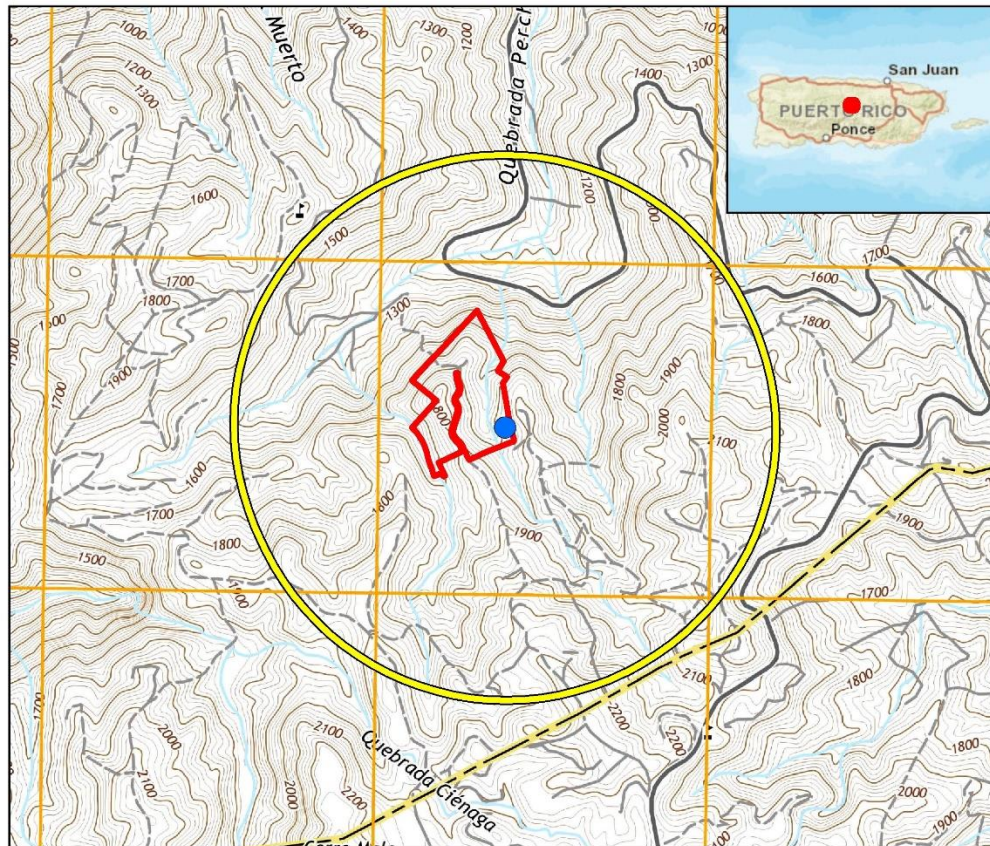
Morovis, PR 00687

Catastro: 193-000-003-75-000




Lat: 18.274475, Lon: -66.404823

Previous Investigations: USGS Topographic Map

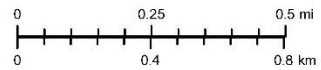
Puerto Rico Department of Housing ReGrow



Legend

-  PR-RGRW-03946
-  PR-RGRW-03946 Parcel
-  0.50 Mile (0.80 km) Buffer

Contour Interval 20 Feet



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



Source

United States Geological Survey (USGS)
National Geologic Map Database
https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis

Photograph Key



Applicant: Zoemma Inc.

Case ID: PR-RGRW-03946

City: Morovis



Photo #: 1

Description (include direction): General area where the greenhouse will be installed, looking northwest.

Date: August 18, 2023



Photo #: 2

Description (include direction): General area where the greenhouse will be installed, looking southeast.

Date: August 18, 2023



October 20, 2022

Arch. Carlos A. Rubio Cancela

Executive Director

State Historic Preservation Officer

Cuartel de Ballajá Bldg.

San Juan, Puerto Rico

Re: Authorization to Submit Documents

Dear Arch. Rubio Cancela:

The U.S. Department of Housing (HUD) approved the allocations of Community Development Block Grant (CDBG-DR) funds on February 9, 2018. It also approved the allocation of Community Development Block Grant Mitigation (CDBG-MIT) funds on January 27, 2020. The purpose of these allocations is to address unsatisfied needs as a result of Hurricanes Irma and Maria in September 2017; and to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

To comply with the environmental requirements established by HUD, the Department of Housing of Puerto Rico (PRDOH) contracted Horne Federal LLC to provide environmental registry review services, among others, that will support the objectives of the agenda for both CDBG-DR and CDBG -MIT Programs.

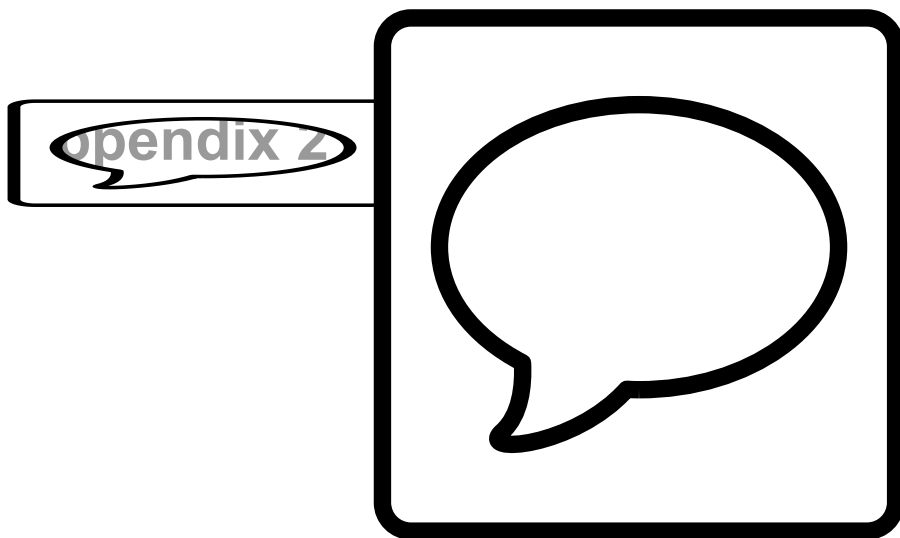
In line to expedite the processes, Horne Federal LLC, is authorized to submit to the State Historic Preservation Officer, documentation of projects related to both the CDBG-DR and CDBG-MIT on behalf of PRDOH.

Cordially,

Juan C. Pérez Bofill, P.E. M.Eng

Director of Disaster Recovery

CDBG DR-MIT





You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of March 31, 2023

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

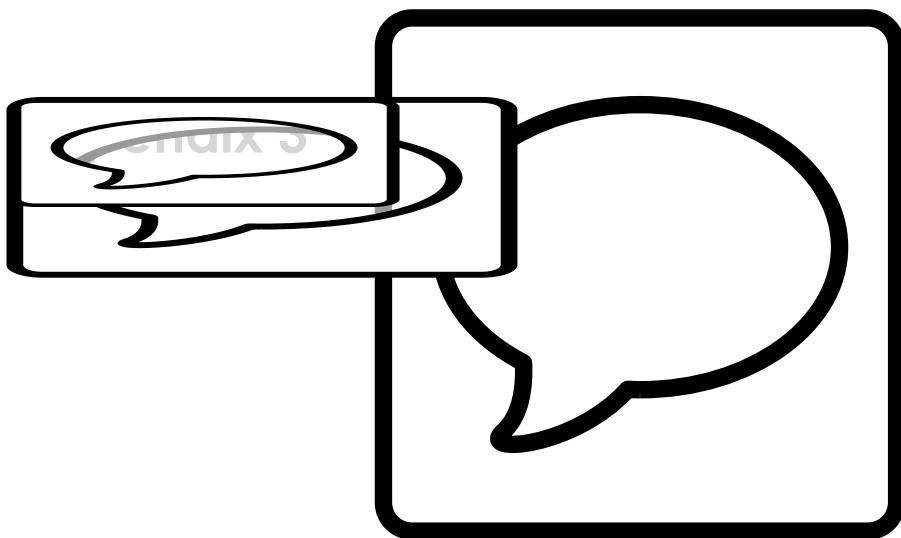
Change the State:

Important Notes

Download National Dataset: [dbf](#) | [xls](#) | [Data dictionary \(PDF\)](#)

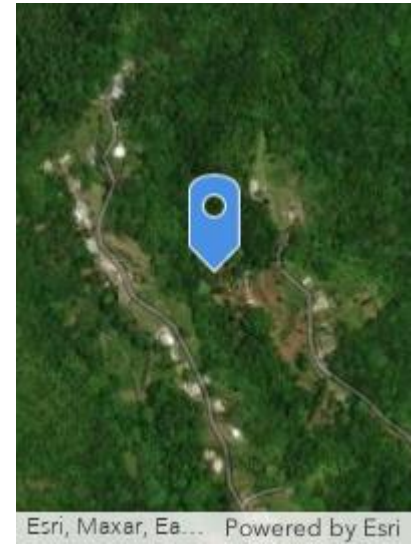
County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
PUERTO RICO								
Arecibo Municipio	Lead (2008)	Arecibo, PR	11121314151617181920212223	//		Part	32,185	72/013
Bayamon Municipio	Sulfur Dioxide (2010)	San Juan, PR	181920212223	//		Part	22,921	72/021
Catano Municipio	Sulfur Dioxide (2010)	San Juan, PR	181920212223	//		Whole	28,140	72/033
Guaynabo Municipio	PM-10 (1987)	Mun. of Guaynabo, PR	929394959697989900010203040506070809	02/11/2010	Moderate	Part	90,470	72/061
Guaynabo Municipio	Sulfur Dioxide (2010)	San Juan, PR	181920212223	//		Part	23,802	72/061
Salinas Municipio	Sulfur Dioxide (2010)	Guayama-Salinas, PR	181920212223	//		Part	23,401	72/123
San Juan Municipio	Sulfur Dioxide (2010)	San Juan, PR	181920212223	//		Part	147,963	72/127
Toa Baja Municipio	Sulfur Dioxide (2010)	San Juan, PR	181920212223	//		Part	52,441	72/137

Important Notes



APPLICANT/LOCATION INFORMATION

Applicant ID:	PR-RGRW-03946
Applicant Name:	Zoemma Inc
Parcel ID:	193-000-003-75-000
Latitude:	18.273941
Longitude:	-66.404958
Street Address:	Carr 155 KM 35.5, Bo Percha
Municipio:	Morovis
Zip Code:	00687
Site Inspector:	Egon Gonzalez
Date of Visit:	August 4, 2023
Time of Visit:	13:11
Building Type:	



FIELD OBSERVATIONS

Question	Answer	Notes
A. Is the structure in use?	Yes	There are three greenhouses. One greenhouse is in use, one needs repair and the other is new
B. Is the structure a greenhouse?	Yes	100feetx20feet
C. Is Electricity connected? (Utilities or Well)	Yes	Property has electricity from public company
D. Is water connected? (Utilities or Well)	Yes	Parcel is connected to AAA and water is also provided by nesaby stream
1. Are there signs of poor housekeeping on site? (mounds of rubble, garbage, strom debris, solid waste, petroleum products, paint, pesticides, cleaning fluids, vehicle batteries, abandoned vehicles, pits, pools, ponds of hazardous substances, etc.)	No	
2. Are there any 55-gallon drums visible on site? If yes, are they leaking?	No	
3. Are there any (or signs of any) underground storage tanks on the property?	No	
4. Are there signs of AST on the parcel or adjacent parcel? If yes, list approximate size and contents, if known.	Yes	
5. Is there any stained soil or pavement on the parcel?	No	
6. Is a water drainage system in use?	No	
7. Is a warehouse in use for storage of Fertilizer or Pesticides?	No	
8. Are there any groundwater monitoring wells on the site or adjacent parcel?	No	
9. Is there evidence of a faulty septic system?	No	
10. Is there distressed vegetation on the parcel?	No	
11. Is there any visible indication of mold?	No	
12. Is there any visible evidence of asbestos, chipping, and flaking or peeling paint, or hazardous materials present in or on the structure?	No	
13. Are any additional site hazards observed?	No	
14. Is there any permanent standing water, such as a pond or stream, located on the site(do not include ponding from recent rain / weather events)?	Yes	Stream located nearby
15. Does the subject property have water frontage?	No	
16. Is there any indication of the presence of wetlands?	No	
17. Are there any obvious signs of animals or birds nesting on or near the site?	No	
18. Is the applicant aware of any significant historical event or persons associated with the structure, or of it being located in a historic district/ area?	No	
19. Is a historic marker present?	No	

Front of Structure

Photo Direction:

Comments: 100ft x 20ft / 4" or 6" inch diameter and 16" or 18" deep. Around 24 posts. Coordinates: 18.274475, -66.404823



Facing Away from Front

Photo Direction:

Comments: In new greenhouse: Lettuce Hydroponic



Side #1 of Structure

Photo Direction:

Comments:



Facing Away From Side #1

Photo Direction:

Comments:



Back of Structure

Photo Direction:

Comments:



Facing Away from Back

Photo Direction:

Comments:



Side #2 of Structure

Photo Direction:

Comments:



Facing Away from Side #2

Photo Direction:

Comments:



Streetscape #1

Photo Direction:

Comments:



Streetscape #2

Photo Direction:

Comments:



Address

Photo Direction:

Comments:



Architectural Details 1

Photo Direction:

Photo Description: Existing Greenhouse



Architectural Details 2

Photo Direction:

Photo Description: Storage



Architectural Details 3

Photo Direction:

Photo Description: Cilantrillos



Architectural Details 4

Photo Direction:

Photo Description: Water cistern used to store rain water



Architectural Details 5

Photo Direction:

Photo Description: Greenhouse to be repaired



Architectural Details 6

Photo Direction:

Photo Description: Greenhouse to be repaired



Architectural Details 7

Photo Direction:

Photo Description: Hydroponic Lettuce



Architectural Details 8

Photo Direction:

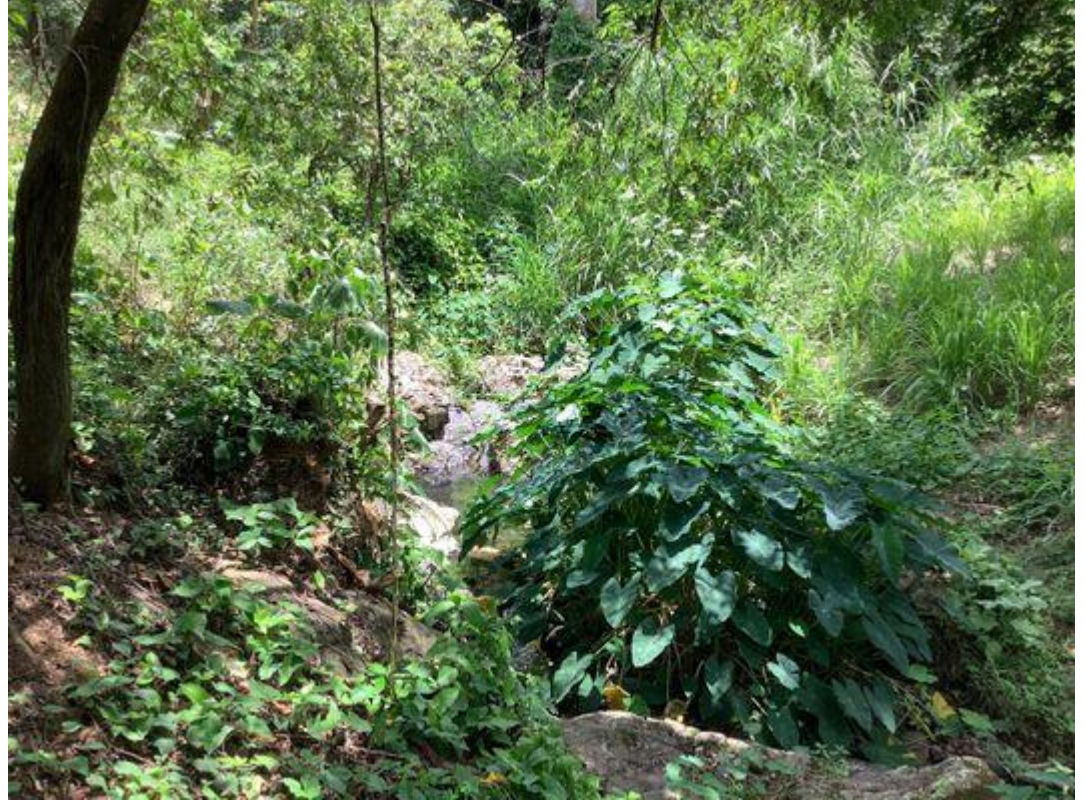
Photo Description: Stream located nearby



Architectural Details 9

Photo Direction:

Photo Description: Stream located nearby



Architectural Details 10

Photo Direction:

Photo Description: Greenhouses



Architectural Details 11

Photo Direction:

Photo Description: Water provided by AAA



Architectural Details 12

Photo Direction:

Photo Description: Right side of existing warehouse



Architectural Details 13

Photo Direction:

Photo Description: Cilantrillo, Recao, Platano, Yautia



Architectural Details 14

Photo Direction:

Photo Description: Granada, Cacao



Architectural Details 15

Photo Direction:

Photo Description: Existing



Architectural Details 16

Photo Direction:

Photo Description: Abandoned vehicle



Architectural Details 17

Photo Direction:

Photo Description: ATV and Transit Storage 18.271096 , -66.402388



Architectural Details 18

Photo Direction:

Photo Description:



Architectural Details 19

Photo Direction:

Photo Description: Water is provided by AAA



Architectural Details 20

Photo Direction:

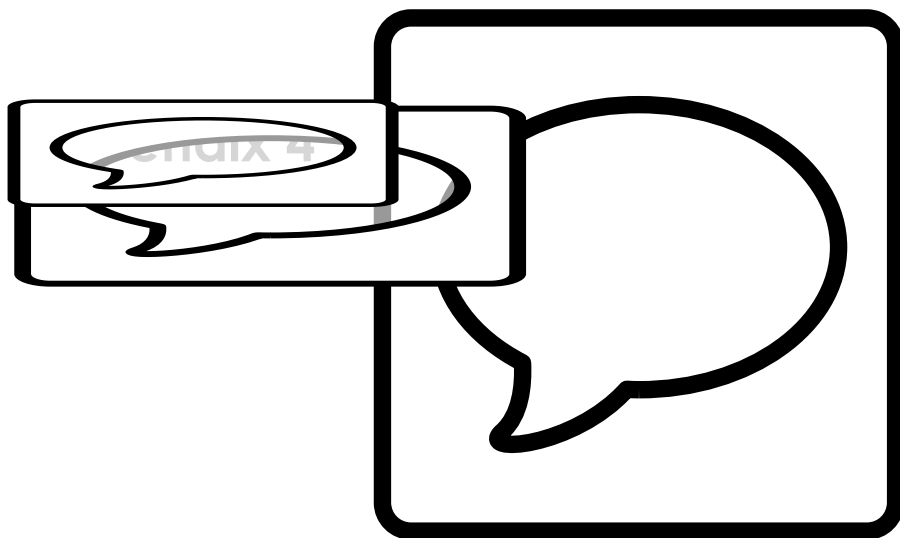
Photo Description:



EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	N/A	N/A	N/A	8.08	N/A
Ozone (ppb)	N/A	N/A	N/A	61.6	N/A
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.0336	0.0667	44	0.261	2
Air Toxics Cancer Risk* (lifetime risk per million)	18	20	0	25	1
Air Toxics Respiratory HI*	0.18	0.19	0	0.31	1
Toxic Releases to Air	1,500	4,300	71	4,600	67
Traffic Proximity (daily traffic count/distance to road)	11	180	14	210	17
Lead Paint (% Pre-1960 Housing)	0.068	0.16	40	0.3	29
Superfund Proximity (site count/km distance)	0.075	0.15	46	0.13	57
RMP Facility Proximity (facility count/km distance)	0.29	0.47	63	0.43	66
Hazardous Waste Proximity (facility count/km distance)	0.058	0.76	2	1.9	11
Underground Storage Tanks (count/km ²)	0.096	1.7	0	3.9	28
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0071	2.3	56	22	65
SOCIOECONOMIC INDICATORS					
Demographic Index	95%	83%	83	35%	99
Supplemental Demographic Index	52%	43%	72	14%	99
People of Color	100%	96%	31	39%	98
Low Income	90%	70%	82	31%	99
Unemployment Rate	24%	15%	78	6%	97
Limited English Speaking Households	64%	67%	36	5%	99
Less Than High School Education	29%	21%	71	12%	90
Under Age 5	5%	4%	72	6%	52
Over Age 64	15%	22%	24	17%	50
Low Life Expectancy	N/A	N/A%	N/A	20%	N/A

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.



January 9, 2024

For: Puerto Rico Department of Housing
CDBG-DR & CDBG-MIT Program
ReGrow Environmental Assessment

From: Behar Ybarra & Associates

RE: Threatened and Endangered Species Review for Case PR-RGRW-03946 located at Carr 155 KM 35.5, Bo Percha, Morovis, PR 00687

This Threatened and Endangered Species Review evaluates a greenhouse installation at the coordinates: latitude 18.274475, longitude -66.404823 on Carr 155 KM 35.5, Bo Percha, Morovis, PR 00687, see Exhibit 1: Location Map and Exhibit 2: Topographic Map. The project is part of the Re-Grow Puerto Rico Urban-Rural Agriculture Program (RGRW) that aims to increase agricultural capacity while promoting and increasing food security inland wide. This Program will enhance and expand agricultural production related to economic revitalization and sustainable development activities.

The proposed activities for PR-RGRW-03946 consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil. The new hydroponic system will be served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection. The project area is located at Carr 155 KM 35.5, Bo Percha, Morovis, PR 00687. Based on a review of historical aerial imagery, the general area was a rural residential setting from at least 1959 (the earliest imagery available for the area) through the present day. The Area of Potential Effect (APE) has been defined as the area potentially impacted by ground disturbing activities related to the installation of the greenhouse, see Figure 3: Area of Potential Effect.

Existing Conditions and Trends:

The proposed project parcel 193-000-003-75-000 is designated as Not Prime Farmland, See Figure 4: PR-RGRW-03946 Farmland Protection Map. The project area is located in the rural mountainous area of Morovis. The greenhouse will be installed on a property located near a slope, refer to Photo 1 and Photo 2. The area is almost entirely covered with grass. There is a small area of reddish soil. The soil in this area has been classified as Mucara clay, 40 to 60 percent slopes (MuF). This soil is moderately deep, very steep and well drained. The land has been used for agricultural uses for the past 10 years and the proposed project will not change the land use associated with these placements. The project will not involve cutting down trees. In addition, the closer Final Critical Habitat is located 47,289 feet from the project location, see Figure 5 PR-RGRW-03946 Critical Habitats Map.

Using the Information for Planning and Consultation (IPaC) system (See Exhibit B), we have determined that the proposed project lies within the range of the following federally listed species and critical habitats:

Name of species	Threatened/Endangered/Candidate
Reptiles	
Puerto Rican boa (<i>Chilabothrus inornatus</i>)	Endangered
Insects	
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	Threatened
Critical Habitat	
There are no critical habitats within the project area.	

The nature of the project, scope of work, information available, a careful analysis of the IpaC, the Puerto Rico Boa conservation measures, the Caribbean Dkey dated January 8, 2024, in the US Fish and Wildlife Service’s online IPaC application, and the observations during the field visit, were used to evaluate the potential impacts to federally listed species from this project. Based on that information and the answer inputted into the Dkey, it was determined that the proposed action will have “No Effect” determination on the Puerto Rican Boa and Puerto Rican Harlequin Butterfly, see Exhibit B.

Name of the species	Effect Determination	Conservation Measures that will be implemented
Puerto Rican boa (<i>Chilabothrus inornatus</i>)	No Effect (NE)	USFWS Puerto Rico Boa Conservation Measures 2020
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	No Effect (NE)	No Conservation Measures.
Critical Habitats		
There are no critical habitats within the project area.		

If a Puerto Rican Boa is found in the project activity site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the Construction Manager shall contact the Puerto Rico Department of Natural and Environmental Resources and ask for them to relocate the Boa.

For any questions or concerns, we can be reached by phone 787-783-0290 or email (patricia.carmenatty@byaea.com).

Patricia Carmenatty Santiago



B.S. Biologist, Behar Ybarra & Associates

References:

Puerto Rican boa (*Chilabothrus inornatus*)

Species Profile: <https://ecos.fws.gov/ecp/species/6628>

USFWS Puerto Rican boa Conservation Measures

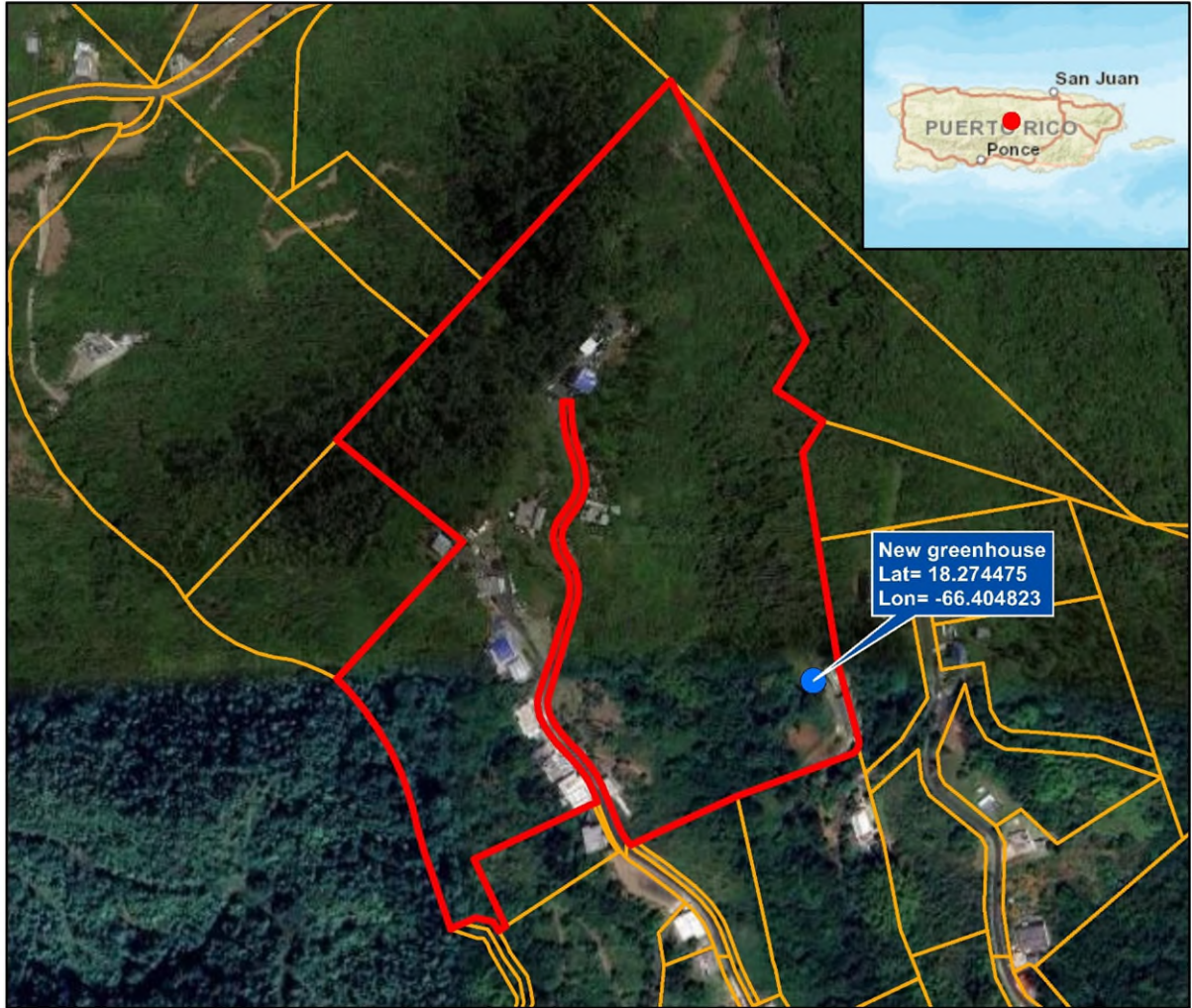
Puerto Rican Harlequin Butterfly (*Atlantea tulita*)

Species Profile: <https://ecos.fws.gov/ecp/species/9005>

Exhibit A: Figures

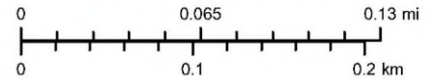
Location: Aerial Map

Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946
- ▭ PR-RGRW-03946 Parcel
- ▭ CRIM Parcels



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Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community and Google Earth



Source

Centro de Recaudación de Ingresos Municipales (CRIM)
<https://catastro.crimpr.net/odprpc/>

Figure 1: PR-RGRW-03946 Location Map

Application ID: PR-RGRW-03946

Zoemma Inc
Carr 155 KM 35.5
Bo Percha
Morovis, PR 00687
Catastro: 193-000-003-75-000
Lat: 18.274475, Lon: -66.404823

Location: USGS Topographic Map

Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946
- ▭ PR-RGRW-03946 Parcel

Contour Interval 20 Feet

0 0.065 0.13 mi
0 0.1 0.2 km

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Source
United States Geological Survey (USGS)
National Geologic Map Database
https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html

Figure 2: PR-RGRW-03946 Topographic Map

Application ID: PR-RGRW-03946

Zoemma Inc
Carr 155 KM 35.5
Bo Percha
Morovis, PR 00687
Catastro: 193-000-003-75-000
Lat: 18.274475, Lon: -66.404823

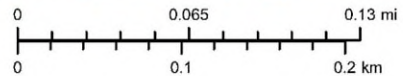
Area of Potential Effect

Puerto Rico Department of Housing ReGrow



Legend

- PR-RGRW-03946 Applicant Structure
- Area of Potential Effect
- PR-RGRW-03946 Parcel
- CRIM Parcels



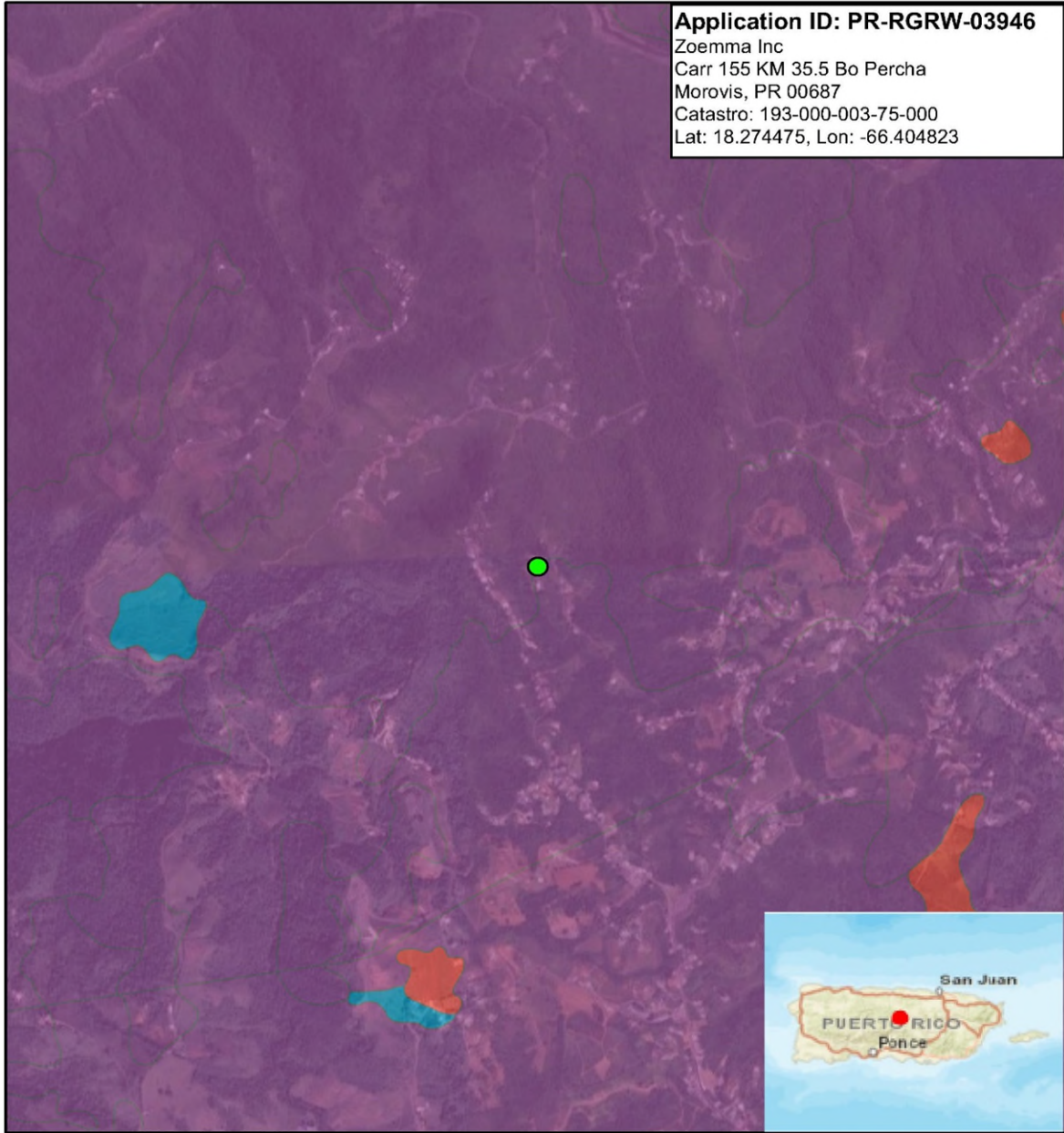
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community and Google Earth



Source

Centro de Recaudación de Ingresos Municipales (CRIM)
<https://catastro.crimpr.net/cdprpc/>

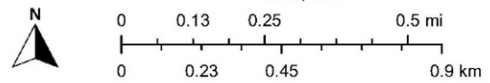
Figure 3: PR-RGRW-03946 Area of Potential Effect Map



8/10/2023, 11:08:37 AM

Farmland Protection

- All areas are prime farmland
- Farmland of statewide importance
- Not prime farmland
- PR-RGRW-03946



Source

Natural Resources Conservation Service (NRCS)
 Gridded Soil Survey Geographic Database (gSSURGO)
<https://data.nal.usda.gov/dataset/soil-survey-geographic-database-ssurgo>

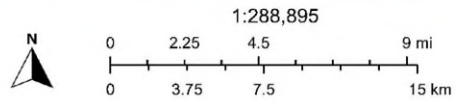
Figure 4: PR-RGRW-03946 Farmland Protection Map

Don't Area 1 Suite 2-3, Calle Percha 654, Atarima, San Juan, PR, 00950 Tel: (787) 80-0200



8/10/2023, 11:03:17 AM

- USFWS Critical Habitat - Final
- PR-RGRW-03946



Source
 National Oceanic and Atmospheric Administration (NOAA)
 Office of Response and Restoration
<https://response.restoration.noaa.gov/>

BYA
 Earthstar Geographics | Google Earth Image 2021 © Maxar Technologies; © Image 2021 CNES/Airbus | GoogleEarth | SGS National Map 3D Elevation Program (3DEP), July 18, 2023. | FEMA | The

Figure 5: PR-RGRW-03946 Critical Habitats Map

Exhibit B: Information for Planning and Consultation (IPaC)



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) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project Code: 2024-0001843
Project Name: PR-RGRW-03946

January 08, 2024

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 U.S. Fish and Wildlife Service (Service) consultation process 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.

Once a species list is obtained for the proposed project, an effect determination for endangered and threatened species should be made. The applicant could make an effect determination by using available keys on IPaC for specific species. For species with no determination keys, the applicant should request concurrence from the Service by sending a project package

to caribbean_es@fws.gov. To obtain guidance for completing this process and the minimum requirements for project packages, please visit:

<https://www.fws.gov/sites/default/files/documents/consultation-under-section-7-of-the-endangered-species-act-with-the-caribbean-ecological%20Services-field-office-template-letter.pdf>

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 (B.A.) to assist in its determination of the project's effects on species and their habitat. However, a B.A. 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 B.A. 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 B.A. are described at 50 CFR 402.12.

If a federal agency determines, based on its B.A. 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:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.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.

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". Please use this list to determine whether your project requires consultation and to make your effects determination. For more guidance, use the Guideline for Consultation under Section 7 of the Endangered Species Act with the Caribbean Ecological Services Field Office by clicking [here](#).

This species list is provided by:

Caribbean Ecological Services Field Office

caribbean_es@fws.gov

Post Office Box 491

Boqueron, PR 00622-0491

(786) 244-0081

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- 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) 834-1600

PROJECT SUMMARY

Project Code: 2024-0001843

Project Name: PR-RGRW-03946

Project Type: Restoration / Enhancement - Agricultural

Project Description: The proposed activities for PR-RGRW-03946, consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil. The new hydroponic system will be served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection. The project area is located at PR-155 km. 35.5, Bo. Percha within the Municipality of Morovis.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.27555855,-66.40592271185193,14z>



Counties: Morovis County, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

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

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

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

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/5J3UHHWCQBDSHMWD2SNNWTDBCI/documents/generated/7140.pdf	Endangered

INSECTS

NAME	STATUS
Puerto Rican Harlequin Butterfly <i>Atlantea tulita</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9005	Threatened

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
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.

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.

RIVERINE

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United States Department of the Interior



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Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project code: 2024-0001843
Project Name: PR-RGRW-03946

January 08, 2024

Subject: Consistency letter for the project named 'PR-RGRW-03946' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On January 08, 2024, Patricia Carmenatty used the Caribbean DKey; dated October 12, 2023, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'PR-RGRW-03946'. The project is located in Morovis County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.27555855,-66.40592271185193,14z>



The following description was provided for the project 'PR-RGRW-03946':

The proposed activities for PR-RGRW-03946, consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil. The new hydroponic system will be served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection. The project area is located at PR-155 km. 35.5, Bo. Percha within the Municipality of Morovis.

Based on your answers and the assistance of the Service's Caribbean DKey, you determined the proposed Action will have "No Effect" on the following species:

Species	Listing Status	Determination
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Endangered	No effect

Thank you for informing the Service of your "No Effect" determination(s) for this project. No further consultation/coordination for this project is required for these species. However, be aware that reinitiation of consultation may be necessary if later modifications are made to the project so that it no longer meets the criteria or outcome described above, or if new information reveals effects of the action that could affect listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed.

This letter serves as documentation of your consideration of the federally listed species as required under section 7 of the ESA. However, effects to the other federally listed species or critical habitat as listed below from the "IPaC print-out for the project" (see below) should be considered as part of your ESA review for the project.

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "No Effect" (NE) determination for Federally listed species in the Caribbean. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NE concurrence provided here. This verification period allows the Caribbean Ecological Services Field Office to apply local knowledge to evaluate the Action, as we may identify a small subset of actions having unanticipated impacts. In such instances, the Caribbean Ecological Services Field Office may request additional information to verify the effects determination reached through the DKey.

Note: Projects located within the range of the Puerto Rican boa or the Virgin Islands tree boa might encounter these species during project activities. **This letter does not provide take to handle or move these species.** If relocation of the species is needed, please contact either the Puerto Rico Department of Natural Resources (DNER) at 787-724-5700, 787-230-5550, or 787-771-1124 for projects in Puerto Rico, or the Virgin Islands Department of Planning and Natural Resources, Division of Fish and Wildlife (DFW) at 340-775-6762 for projects in the Virgin Islands. Otherwise, contact the Caribbean Ecological Services Field Office (caribbean_es@fws.gov) to determine whether the consultation needs to be reinitiated.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion. Effects to the other federally listed species or critical habitat as listed below should be considered as part of your ESA review for the project.

- Puerto Rican Harlequin Butterfly *Atlantea tulita* Threatened

If the proposed project is located within species range where a DKey has not been developed for those species, please follow the established guidance for initiating section 7 consultation Caribbean Ecological Services Field Office.

We appreciate your interest in protecting endangered species and their habitats. It is the Service's mission to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of our people. If you have any questions or require additional information, please contact our office at Caribbean_es@fws.gov.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

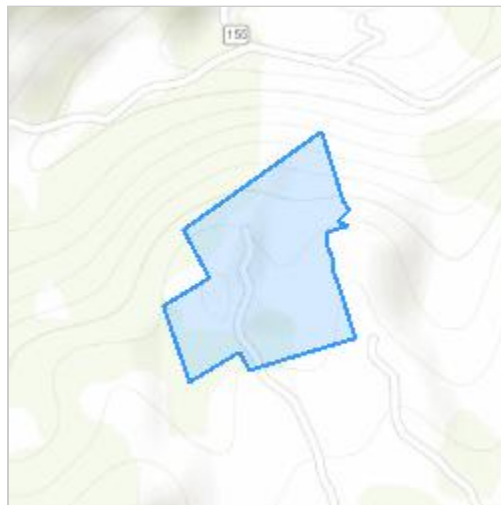
PR-RGRW-03946

2. Description

The following description was provided for the project 'PR-RGRW-03946':

The proposed activities for PR-RGRW-03946, consist of the purchase and installation of a 20' x 100' greenhouse, a Tractor, and a Transit vehicle. The new greenhouse will be anchored to 8 supports buried 2 feet deep. The project also includes pipes installation for two 7' x 98' benches for the Nutrient Film Technique (NFT) system that contain two (2) 200-gallon cisterns, one for each bench, and two 4,950 GPH water pumps that will be placed inside the greenhouse bare soil. The new hydroponic system will be served by water from an existing P.R.A.S.A. intake in the property. The pipes to the new greenhouses will go above ground. The power needed for the pumps will be provided from an existing PREPA/LUMA connection. The project area is located at PR-155 km. 35.5, Bo. Percha within the Municipality of Morovis.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.27555855,-66.40592271185193,14z>



QUALIFICATION INTERVIEW

1. Is the proposed project an EPA Multi-Sector General Permit (MSGP) renewal for an existing project? ([MSGP Fact Sheet](#))

No

2. Is the proposed project within an urban developed area? (i.e., cities, downtowns, shopping malls etc.)

Note: Urban and developed areas has one or more of the following characteristics: Presence of existing buildings, residential areas, and commercial establishments. Well-established infrastructure including roads, utilities, and urban facilities. High population density. Established neighborhoods and urban amenities ("urbanizaciones"). Developed landscape with paved surfaces, parking lots, and industrial areas. Signs of human activity and urbanization, such as shopping centers and recreational facilities. Location within the boundaries of a city or town ("casco urbano"). High concentration of built-up structures and limited open spaces. Aerial imagery might be requested to the applicant. .

No

3. Does the proposed project consist of rehabilitation or demolition of existing single-family homes and buildings?

No

4. Does the proposed project consist of improvements to existing facilities?

Note: Examples of facilities are occupied single family homes, and buildings; existing recreational facilities, including the installation of roofs to existing basketball courts, etc.

No

5. Does the proposed project consist of repavement or repair of existing roads and installing transit signage or guardrails?

No

6. Does the proposed project consist of the construction of gutters and/or sidewalks along existing roads, and developments?

No

7. Does the proposed project consist of replacement or repair of existing bridges which include cutting vegetation or earth movement?

No

8. Does the proposed project consist of activities within existing Right of Ways (ROWs) along roads which include cutting vegetation or earth movement?

No

9. Is the proposed project located within a rural area covered by grassland (pasture lands "pastos")?

Yes

10. [Hidden Semantic] Does the proposed project intersect the Puerto Rican boa area of influence?

Automatically answered

Yes

Exhibit C: Field Visit Photos



Photo #: 1

Description (include direction): General area where the greenhouse will be installed, looking northwest.

Date: August 18, 2023



Photo #: 2

Description (include direction): General area where the greenhouse will be installed, looking southeast.

Date: August 18, 2023