

# Environmental Assessment

## Determinations and Compliance Findings for HUD-assisted Projects

### 24 CFR Part 58

#### **Project Information**

**Project ID:** PR-RGRW-00801

**Project Name:** Roberto J. Berrios Vázquez DBA Agricultura Y Produccion Animal

**Responsible Entity:** Puerto Rico Department of Housing

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

**State/Local Identifier:** Puerto Rico/Barranquitas, PR

**Preparer:** Andrew McCadden

**Certifying Officer Name and Title:** Permit and Compliance Officers: Sally Acevedo Cosme, Pedro De León Rodríguez, María T. Torres Bregón, Angel G. López-Guzmán, Ivelisse Lorenzo Torres, Santa Damarys Ramírez Lebrón, Janette I. Cambrelén, Limary Velez-Marrero, Juan Carlos Perez Bofill, and Mónica M. Machuca Ríos.

**Consultant** (if applicable): Tetra Tech, 251 Calle Recinto Sur, Ste. 202, San Juan, PR 00091

**Direct Comments to:** PRDOH (environmentcdbg@vivienda.pr.gov)

#### **Project Location:**

The property is a 94.34-acre site located at Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal in the Municipality of Barranquitas, Puerto Rico (Parcel ID# 272-000-004-12). The coordinates of the project site are 18.177058, -66.323898.

The land was and currently is used for pigs, chicken, and cattle production.

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

The area of potential impact (APE) is approximately 0.31 acres.

The proposed use of grant funds is for the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2).

The applicant plans to drill and install a new 400-foot (ft) depth water well at coordinates 18.177344, -66.323353. The well installation (SOW-1) includes the construction of an 8 ft x 8 ft concrete base. The well boring diameter is 9 inch (") for a final casing of 6 " PVC Schedule 40. Power needed for the water pump will be provided via an underground electric conduit that will be installed at an approximate depth of 3 ft and connected to an adjacent existing electric connection located at an estimated distance of 15 ft to the

proposed well concrete pad. This water well will supply water to two existing water tanks of 10,000 gallons each. An approximate length of 25 ft of PVC piping at a depth of 2 ft will be installed to connect the existing water piping from the tanks to the final location of the well. Due to the proximity of the tanks and the proposed well the water and electrical connections and trenches are contained within the delimited APE for the SOW-1.

The SOW-2 is the purchase and installation of 29 solar panels at coordinates 18.177135, -66.324014. The solar panels will be installed on a 40 ft x 40 ft concrete base. The applicant plans to directly connect the solar system to the existing main electrical panel located at 18.177408, -66.323357. An estimated length of 150 ft of underground electrical conduit at a depth of 3 ft will be required to connect the main panel of the farm to the PV panels. Field will require grading and clearing activities.

Site photos are included in **Appendix A**. A site map (Figure 1) is included in **Appendix B**.

**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. The purpose of this project is to increase the productivity of the farm. This agricultural project associated with the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) is keeping with the overall objectives of the Economic Development Program.

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

The land proposed for the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) is used for agricultural purposes. Therefore, there is no change in land use associated with the project. The proposed project area is located on already cleared space. Some ground disturbance will be required.

**Structure of this Environmental Review Report (ERR).**

This ERR discusses the Funding Information immediately below. The environmental impacts of the proposed action are discussed in the Compliance with 24 CFR 58.5 and 58.6 Laws and Authorities checklist and Environmental Factors checklist. The listing of Additional Studies Performed, and Sources, Agencies and Persons Consulted follows the checklists. The discussions of Public Outreach, Cumulative Impacts, Alternatives, and Summary of Findings and Conclusions are presented at the end of the ERR, before

the listing of Mitigation Measures and Determination signatures. The appendices contain detailed information.

- Appendix A – Site Inspection
- Appendix B – Maps
- Appendix C – Additional Documentation
- Appendix D – Endangered Species
- Appendix E – SHPO Consultation

## **Funding Information**

<b>Grant Number</b>	<b>HUD Program</b>	<b>Funding Amount</b>
B-17-DM-72-0001,	Community Development Block Grant – Disaster Recovery (CDBG-DR)	\$11,938,162,230
B-18-DP-72-0001,	CDBG-DR, Re-Grow Puerto Rico	
B-19-DP-78-0002,	Urban-Rural Agricultural Program	
B-18-DE-72-0001		

**Estimated Total HUD Funded Amount:** \$84,700.00

**Estimated Total Project Cost** (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$84,700.00

## **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 of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.6</b>		
<b>Airport Hazards</b>  24 CFR Part 51 Subpart D	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The nearest civil airport, “The Aeropuerto Internacional Mercedita”, is approximately 101,178 feet from the proposed site. The nearest military airport, the “Luis

		Muñoz Marín”, is approximately 142,255 feet from the proposed site. The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. The project is in compliance with Airport Hazards requirements. Refer to Figure 2 in <b>Appendix B.</b>
<p><b>Coastal Barrier Resources</b></p> <p>Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>Puerto Rico has various Coastal Barrier Resources Systems (CBRS). The project is in the South-Central Region of Puerto Rico. The distance to the nearest CBRS unit (PR-47) is 77,315 feet. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. Refer to Figure 3 in <b>Appendix B.</b></p>
<p><b>Flood Insurance</b></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 site is located in Zone X, area of minimal flood hazard, as per Floodplain Insurance Map 72000C1165H, effective date April 19, 2005. This project is in compliance with Floodplain Insurance requirements. (See Figures 4 and 5 in <b>Appendix B.</b>)</p>

<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.5</b>		
<p><b>Clean Air</b></p> <p>Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The Project site is not located in a county or air quality management district that is in non-attainment status for any criteria pollutants. The Municipio of Barranquitas is not listed in the EPA Green Book “Puerto Rico Nonattainment/Maintenance Status for Each County by Year for all Criteria Pollutants” (See the List in Appendix C). The drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) would have no impact on air quality. The project is in compliance with Clean Air Act. Refer to EPA listing in <b>Appendix C.</b></p>
<p><b>Coastal Zone Management</b></p> <p>Coastal Zone Management Act, sections 307(c) &amp; (d)</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project is located 72,862 feet from the nearest Coastal Zone Management area and does not affect a Coastal Zone as defined in the PR Coastal Zone Management Plan. The project</p>

		is in compliance with the Coastal Zone Management Act. See Figure 7 in <b>Appendix B</b> .
<p><b>Contamination and Toxic Substances</b></p> <p>24 CFR Part 58.5(i)(2)</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>A site visit conducted on September 29, 2023, no debris or rubbish or visible signs vegetative stress, contamination, or toxic substances were noted at the project site.</p> <p>Site contamination was evaluated through online data searches to determine if toxic sites are located within 3,000-feet of the proposed project.</p> <p>There are no sites of environmental concern identified within 3,000 feet of the project site.</p> <p>The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). Refer to Figures 8 and 9 in <b>Appendix B</b>. The project is in compliance with Contamination and Toxic Substances.</p>
<p><b>Endangered Species</b></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>The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) located in an area that has been used for agricultural purposes.</p> <p>According to EPA NEPAAssist Enviromapper, the nearest critical or proposed critical habitat is 61,090 feet to the southeast of the project location. The Official Species List from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website lists the Puerto Rican Boa as being able to be found in the area, but there are no critical habitats for them at this location.</p> <p>A site-specific review of endangered species was conducted in accordance with the Fish and Wildlife Act (47 Stat. 401, as amended: 16 U.S.C. 661 et seq.) (See <b>Appendix D</b>).</p> <p>The proposed project will have No Effect on listed species or habitats. Based on the nature of the project, scope of work, information available, and a careful analysis of the Project Site, and IPaC</p>

		<p>species list, it was determined that there would be No Effect for any of the listed species.</p> <p>If a Puerto Rican Boa is encountered, work will cease until it moves off the site or, failing that, the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers will be notified for safe capture and relocation of the animal, in accordance with the USFWS Puerto Rican Boa Conservation Measures guidelines.</p> <p>Refer to Figures 10 and 11 in <b>Appendix B</b> and IPaC Report in <b>Appendix D</b>. This project is in compliance with the Endangered Species Act.</p>
<p><b>Explosive and Flammable Hazards</b></p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>The project does not include development, construction, or rehabilitation that will increase residential density.</p> <p>The project is in compliance with Explosive and Flammable Hazard requirements.</p> <p>Refer to site visit report in <b>Appendix A</b>.</p>
<p><b>Farmlands Protection</b></p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>A portion of the proposed project site (SOW-2) is designated as farmland of statewide importance. The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The project does not include any activities that could potentially convert agricultural land to nonagricultural use. Although the project includes new construction, the project is exempt from review under the Farmland Protection Policy Act (FFPA) as the project is limited to construction of on-farm structures needed for farm operations. No further review is required.</p> <p>This project is in compliance with the Farmland Protection Policy Act. Refer to Figure 12 in <b>Appendix B</b>.</p>
<p><b>Floodplain Management</b></p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>The Project site is not located in a 100-year floodplain per Floodplain Insurance Map 72000C1165H, effective date April 19, 2005. The project site is not located in Preliminary Firm or an Advisory Base Flood Elevation (ABFE) special</p>

		flood hazard area. See Figures 4, 5 and 6 in <b>Appendix B</b> . This project is in compliance with Executive Order 11988
<p><b>Historic Preservation</b></p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>The Barranquitas Centros Urbanos, a traditional urban center is located 1.1 miles northeast of the property. The project site is not within the 1 mile radius.</p> <p>The site was evaluated on October 16, 2023, by an SOI Qualified Architect/Architectural Historian. Additionally, the site was evaluated on October 24, 2023, by an SOI Qualified Archaeologist. (<b>Appendix E</b>). SHPO concurred with a finding of <b>No Historic Properties Affected</b> within the project’s Area of Potential on Effects on December 13, 2023.</p> <p>Refer to Figure 13 in <b>Appendix B</b> and the report in <b>Appendix E</b>. This project is in compliance with Historic Preservation requirements.</p>
<p><b>Noise Abatement and Control</b></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</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>HUD’s noise regulations protect residential properties from excessive noise exposure. The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) at a farm site. HUD noise regulations do not apply as the project does not include new construction for residential use or rehabilitation of an existing residential property. The proposed project is in compliance with Noise Abatement and Control.</p>
<p><b>Sole Source Aquifers</b></p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>There are no EPA sole source aquifers in Puerto Rico. The project is in compliance with Sole Source Aquifer requirements.</p>
<p><b>Wetlands Protection</b></p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes    No</p> <p><input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>The southern coast is 72,041 feet south of the property. The closest fresh-water bodies include an unnamed creek tributary of the Rio Barranquitas, 400 feet to the north of property, Quebrada Helechal 4,016 feet south of the property and Rio de Barranquitas 4,339 feet north of the property. Additionally, there are several</p>

		<p>unnamed fresh-water bodies outside of the proposed project area within a 0.5 miles radius.</p> <p>The National Wetlands Inventory indicated that no wetlands are located within the construction or APE area. The unnamed creek 400 feet to the north is identified as a riverine wetland. No wetlands will be disturbed during this project. This project does not impact any on or off-site wetlands and includes no activities that would require further evaluation under this section.</p> <p>The project is in compliance with Executive Order 11990. Refer to Figure 14 in <b>Appendix B</b>.</p>
<p><b>Wild and Scenic Rivers</b></p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>This project is not within proximity of a National Wild and Scenic River (WSR). The distance to the nearest WSR is approximately 198,315 feet. The project is in compliance with the Wild and Scenic Rivers Act. Refer to Figure 15 in <b>Appendix B</b>.</p>

<b>ENVIRONMENTAL JUSTICE</b>		
<p><b>Environmental Justice</b></p> <p>Executive Order 12898</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>No adverse environmental impacts were identified in any other compliance review portion of this project that may disproportionately be high for low-income and/or minority communities. Therefore, this topic complies with Executive Order 12898.</p>

**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
<b>LAND DEVELOPMENT</b>		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The proposed project is located on a private farm. The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The project site is zoned as “Agrícola General (A-G)”. The proposed action is compliant with the current agricultural land use of the Project area.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	<p>The proposed project area is located on an already cleared space, with a road to the northwestern of the proposed project area. Surrounding landscape includes chicken houses on cleared, flat land, as well as a major highway to the east, and forest to the south, outside of the parcel. No trees will be removed during this project. The area was and currently is used for pigs, chicken, and cattle production. Soils in the proposed project area are classified as Humatas clay (HtE and HtF) with 20 to 60 percent slopes, surrounded by farmland with young and secondary forest vegetation cover surrounding the parcel, 670 meters above mean sea level.</p> <p>The project site for SOW-2 is not graded.</p> <p>The project site area is rated “high” for landslide susceptibility (see Figure 16 in <b>Appendix B</b>). The proposed location of the photovoltaic panels has not been evenly graded.</p> <p>There will be no human habitation associated with the structure and therefore extensive mitigation measures will not be required, such as retaining walls or special engineering design. Standard construction BMPs would be used to control erosion and runoff during construction. There will be little to no additional runoff associated with the project.</p>
Hazards and Nuisances	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). During implementation of the project,

including Site Safety and Noise	<p>construction activities may result in temporary elevation of ambient noise levels in immediate areas around active construction areas. The only nearby receptors are the residents of the farm.</p> <p>There is no access to the project area by the public. Standard BMPs, such as construction fencing, would be applied to protect the farm residents and public from typical construction hazards.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
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**SOCIOECONOMIC**

Employment and Income Patterns	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). Temporary employment of workers related to construction activities would result, but no new permanent jobs would be created as a result of this project. These workers are expected to come from the local region. However, since the project will include an economic component, it may aid in restoring some employment opportunities and increase income. The proposed project would not negatively impact employment or income patterns.
Demographic Character Changes, Displacement	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project would not result in demographic character changes or displacement. Given the nature of the project area, no relocations or demolition of residential structures or businesses would occur as part of this project.
Environmental Justice	2	<p>In the area (one mile radius) in which project will occur.</p> <p>100% are people of color compared to PR average of 96%</p> <p>73% are low income compared to PR average of 70%</p> <p>11% are unemployed compared to PR average of 15%</p> <p>The proposed drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) will result in restoration and increase in income and potential employment opportunities in the local area. The impacts would be beneficial.</p>

	See EJSscreen Report in <b>Appendix C</b>
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Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>COMMUNITY FACILITIES AND SERVICES</b>		
Educational and Cultural Facilities	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The project would not result in any change to regional or local area educational and cultural facilities or increase demand for them.
Commercial Facilities	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The agricultural activity of the project property will improve. Other commercial facilities would not be impacted by the proposed project.
Health Care and Social Services	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). Health care and social services facilities would not be impacted by the proposed project. The project would not increase demand for health care and social services facilities.
Solid Waste Disposal / Recycling	2	Waste vegetation from clearing activities will either be composted on site or at regional composting centers. Soil from grading would be recycled on the farm as fill. Left over construction materials that could be reused on the farm (e.g., piping, structural materials, greenhouse covering fabrics) would be stored for later use. The remaining construction solid waste materials would be collected for transport to the local landfill. The amount of impact of solid waste resulting from the construction of the proposed project would be minor. During operations, the products and by-products would be agricultural, which waste would be biodegradable. Other waste components related to the operation of the proposed project includes recyclable materials such as plastics and cardboard. Recyclables will be set aside and dispose according to the local recycling management plan. The remaining municipal solid waste would be collected for the transport to the local landfill.
Wastewater / Sanitary Sewers	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project would not include any

		bathrooms, wastewater, or sewage facilities. Current farm conditions would remain unchanged.
Water Supply	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The appropriate permit for the new water well will be obtained from PRDNER before installation and operation. With this mitigation, there would be minor impact to water resources.
Public Safety – Police, Fire and Emergency Medical	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project would not create any new demand for emergency or health services.
Parks, Open Space and Recreation	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project would not create or destroy any new parks, open space, or recreational activities. It also would not increase use of those facilities.
Transportation and Accessibility	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project would not involve the creation of new roads nor any increase in long-term traffic on existing roads. There would be some minor use of the existing road during construction. All residents and businesses would retain access to their properties during and after the project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>NATURAL FEATURES</b>		
Unique Natural Features, Water Resources	2	The proposed project will be situated on land previously used for agriculture and will have no impact to unique natural features or water resources.  The proposed water withdrawal from the new well will be controlled under a permit. The impact to water resources will be minor.
Vegetation, Wildlife	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project will occur on land previously used for agricultural purposes and will continue in that

		capacity. The proposed project will have no impact on vegetation and wildlife.
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Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>CLIMATE AND ENERGY</b>		
Climate Change Impacts	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). This is a small agricultural project with no measurable impact on climate change factors. The project area is rural and does not have urban heat island effects. There would be no changes to the site configuration or structure that would specifically address the possibility and uncertainty of rising sea levels or the possibility of increases in rainfall intensity. With respect to climate change impact on the project, agricultural activities could be affected by drought.
Energy Efficiency/Energy Consumption	2	The project consists of the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The proposed project is an agricultural project involving the addition of solar equipment to supply/reduce energy demand.

**Additional Studies Performed:** None

**Field Inspection** (Date and completed by):

Site inspection was conducted on September 29, 2023 by Carlos Medina.

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

Puerto Rico State Historic Preservation Office

FAA, National Plan for Integrated Airport Systems:

[www.faa.gov/airports/planning\\_capacity/npias/reports/NPIAS-Report-2017-2021-Appendix-B-Part6.pdf](http://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](http://www.fws.gov/CBRA/Maps/Locator/PR.pdf).  
[www.fws.gov/CBRA/Maps/Locator/PR.pdf](http://www.fws.gov/CBRA/Maps/Locator/PR.pdf)

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

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

US EPA, Environmental Topics, Air Topics: [www.epa.gov/environmental-topics/air-topics](http://www.epa.gov/environmental-topics/air-topics)

US Fish and Wildlife Service, Environmental Conservation Online System:  
<https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=PR&stateName=Puerto%20Rico&statusCategory=Listed>

Federal Emergency Management Agency, Flood Mapping Service:  
<https://msc.fema.gov/portal/home> (compilation of numerous maps)

US Fish and Wildlife Service, National Wetlands Inventory:  
[www.fws.gov/wetlands/data/mapper.html](http://www.fws.gov/wetlands/data/mapper.html) (compilation of numerous maps)

Puerto Rico Coastal Zone Management Program Plan, September 2009.

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

US Geological Survey, Data Release of May Showing Concentration of Landslides Caused by Hurricane Maria,  
[www.sciencebase.gov/catalog/item/59de6459e4b05fe04ccd39d8](http://www.sciencebase.gov/catalog/item/59de6459e4b05fe04ccd39d8)

#### **List of Permits Obtained:**

None

#### **Public Outreach [24 CFR 58.43]:**

The local community has been very proactive in the recovery process. Puerto Rico Department of Agriculture has worked closely with the agricultural community. The 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 proposed project. The growth of agricultural products at the farm would not increase. The project would allow more efficient processing of the agricultural products. Water use would increase to a minor degree with the new well but would only impact the existing site water supply. There are no other wells nearby to be affected.

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

The RGRW Program's goal is to increase agricultural capacity while promoting and increasing food security island-wide. This Program seeks to enhance and expand agricultural production related to economic revitalization and sustainable development activities. The applicant submitted a proposal to enhance and expand agricultural production on their property. The proposed use of grant funds will allow the applicant to expand the cultivation, processing, and delivery of agricultural products through the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). Any alternative that would involve an off-property location would not enhance and expand agricultural production or allow for the economic development for this applicant. The actions are proposed in an area that has been used for agriculture purposes, in a field area that has been already cleared and maintained located proximate to the existing infrastructure of the farm. This farm is currently producing agricultural products and has the utility installations and required infrastructure needed for the operational activities. Among the possible impacts of alternative location, the location of the proposed SOW's off property will require transportation of equipment and products in and out of the property creating an increase in traffic and other vial impacts due to the transportation of materials and heavy equipment. Alternative locations off and on property may represent an impact to undisturbed and/or uneven ground, sloped terrain or within forested areas, which could require heavier clearing and grading activities than the proposed for the installation of the photovoltaic system area. Any alternative that would involve an off-property location would require the move of products, equipment, infrastructure, among other, representing an additional cost and it will not enhance and expand agricultural production or allow for the economic development for this applicant. Given the above-mentioned possible impacts of an alternative location, an off-property alternative was not selected.

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

Under the No Action Alternative, the applicant would not receive federal funding for the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2) 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 environment nor is there the requirement for further consultation with federal agencies associated with the topics evaluated above. There are no environmental review topics addressed above that result in the need for additional formal compliance steps with federal agencies or the requirement for mitigations other than those listed below. There may be additional approvals or permits from local agencies. For example, permits may be required from PRDNER for any water or other utility connections and the Office of

Permit Management (OGPe) is responsible for granting permits, licenses, certifications, consultations, construction, and any other procedure necessary for business development and land use in Puerto Rico. The appropriate and necessary permits should be obtained by the applicant and/or contractor, from the appropriate Department or concerned agency, prior to construction activities.

**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
Water Supply	The appropriate permit will be obtained before installation and operation of the new water well.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	Standard construction BMPs would be used to control erosion and runoff during construction.
Endangered Species	Implement Puerto Rican Boa conservation measures prior to and during construction to avoid or minimize impacts to this species.
<b>Permits or Agency Approvals Required</b>	
Permit or Approval	Permit Conditions
Well	Well or water intake activities require a construction and operation permit from the Water Permits and Franchises Division (DPFA) of the PRDRNER. The SOW does involve the drilling, construction, or installation of a water well. The applicant is responsible for any permits or actions to ensure legalization (if needed) of existing well usage. Any necessary permits should be obtained by the applicant and/or contractor prior to construction activities.
Ground disturbance	Projects whose earthworks are more than 40 m <sup>3</sup> must submit an Incidental Permit. The permit must be submitted via the Single Business Portal to the OGPe to be evaluated and physicalized by the Water Quality Division of the PRDNER. Any necessary permits should be obtained by the applicant and/or contractor prior to construction activities.
Clearing activities	Activities involving the excavation or movement of any component of the terrestrial cortex material that exceeds five hundred (500) cubic meters and up to a maximum of five thousand (5,000) cubic meters require the submittal and approval of a Simple Terrestrial Cortex Removal Permit.



	Applications are submitted via the Single Business Portal of the OGPe to be evaluated and physicalized by terrestrial Cortex Extraction Permit Division of the PRDNER.
Utility Connections- LUMA/PRASA	The project does not involve new connections to the local utility services. Facilities have local utility services connections. The project includes the installation of a photovoltaic system and the connection of the PV System and the water pump to the existing electrical connections of the facilities. However, the applicant is responsible for any permits or actions to ensure legalization of utility connections (if needed) prior to construction activities.
Utility Connections- Water supply	The project does not involve new water utility connections. Facilities have local water utility services connections. However, the applicant is responsible for any permits or actions to ensure legalization of utility connections (if needed) prior to construction activities.

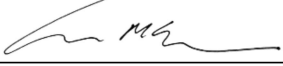
**Determination:**

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

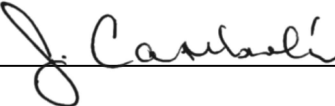
The project will not result in a significant impact on the quality of the human environment.

**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: 2/8/2024

Name/Title/Organization: Andrew McCadden, Senior Biologist, Tetra Tech Inc.

Certifying Officer Signature:  Date: 4/1/2024

Name/Title: Janette I. Cambrelén, Permit 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).

# **APPENDIX A**

## Site Inspection and Photos

## Environmental Field Observation - Puerto Rico Department of Housing

APPLICANT INFORMATION			
Application ID	PR-RGRW-00801		
Applicant Name	ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL		
Property Address	Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal		
Parcel ID	----		
Coordinates	18.177058, -66.323898		
Inspector Name	Carlos O. Medina		
Inspection Date	09/29/2023		
Building Type	Concrete_Metal		
Number of Units	0		
Number of Stories	0		
Year Built; Data Source	----; Historian		
ENVIRONMENTAL OBSERVATIONS (attach photos and notes, as necessary, for any YES answers)			
OBSERVATION ITEMS	YES	NO	COMMENTS
A. Is the <b>structure</b> in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chicken ranch in use. Pig ranch
B. Is <b>structure</b> a greenhouse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
C. Is <b>Electricity</b> connected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Power is connected
D. Is <b>water</b> connected? (Utilities or Well)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water connection.
1. Are there signs of <b>poor housekeeping</b> on site? (mounds of rubble, garbage, storm debris, solid waste, petroleum products, paint, pesticides, cleaning fluids, vehicle batteries, abandoned vehicles, pits, pools, ponds of hazardous substances, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there any <b>55-gallon drums</b> visible on site? If yes, are they leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Are there any (or signs of any) <b>underground storage tanks</b> on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Are there signs of <b>ASTs</b> on the parcel or adjacent parcel? If yes, list approximate size and contents, if known.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 x 300 gallons water reserve Steel silos grains 5,000 pounds 3 x Propane gas tank 118 gallons each Steel silos grains 5,000 pounds
5. Is there any <b>stained soil or pavement</b> on the parcel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Is a water <b>drainage system</b> in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Is a warehouse in use for storage of <b>Fertilizer or Pesticides</b> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Warehouse in use for farm tools.
8. Are there any <b>groundwater monitoring wells</b> on the site or adjacent parcel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Is there evidence of a <b>faulty septic system</b> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Is there <b>distressed vegetation</b> on the parcel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

11. Is there any visible indication of <b>MOLD</b> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Is there any visible evidence of <b>asbestos, chipping, flaking or peeling paint, or hazardous materials</b> present in or on the structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13. Are any <b>additional site hazards</b> observed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
14. Is there any <b>permanent standing water</b> , such as a pond or stream, located on the site (do not include ponding from recent rain / weather events)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water creek located to the left elevation of the property
15. Does the subject property have <b>water frontage</b> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
16. Is there any indication of the presence of <b>Wetlands</b> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water creek located to the left elevation.
17. Are there any obvious signs of <b>animals or birds nesting</b> on or near the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
18. Is the applicant aware of any <b>significant historical event or persons</b> associated with the structure, or of it being located in a historic district/area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
19. Is a <b>historic marker</b> present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional Notes:**

Case: PR-RGRW-00801  
 Project Name: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Coordinates: 18.177058, -66.323898

Is the field graded? For what purpose the field was graded? Month, Year: none

Scope of Work: The project includes the purchase and installation of solar panels and construction of new well.

Land current in use for: Pigs, chicken and cattle grow.

Past Land use was: Pigs, chicken and cattle grow 50 years ago.

The applicant plans to:  
 Construction of a new well and installation of solar panels

Where the applicant plans to do the ground disturbances for the scopes of work, add the coordinates, descriptions and approximately the measurements:

Scope of work 1: construction of a water well  
 18.177344, -66.323353

Construction of a water well, with a drill of an estimated of 400'. A concrete base will be constructed of 8' x 8'. This water well will be power driven by an electric existing connection immediately adjacent to the propose pad, electric conduit underground approximately 3'. The distance between the actual electric connection to the water well pump is approximately 15' long.

This water well will provide the water to two existing water tanks of 10,000 gallons each. The water system connections to the water tanks exist, applicant will connected thru PVC tubes to this existing connection. This new connection will be approximately 25' long underground at 2'.

Scope of work 2: installation of solar panels system  
 18.177135, -66.324014

Installation of a solar power system with 29 solar panels, concrete-mounted in a base of 40' x 40'.

This system will provide power to the main panel of the farm. An existing electrical conduit is located at 18.1776813, -66.3235992, at 150' feet. An electrical conduit underground will be required for electrical cables from the solar panels system, this conduit length will be

150' underground at 3 feet. This conduit go directly to the main panel of the farm.

Any new water connection or power connection?

Water: This new connection will be approximately 25' long underground at 2'.

Power: An electrical conduit underground will be required for electrical cables from the solar panels system, this conduit length will be 150' underground at 3 feet.

## Site Sketch

Scope of work 1: water well



Scope of work 2: solar panels system



Chicken ranch



Road

Front of Structure



Photo Direction: Southwest

Facing Away From Front



Photo Direction: Northeast

Side #1 of Structure



Photo Direction: Southeast

Facing Away From Side #1



Photo Direction: Northwest

Back of Structure



Photo Direction: Northeast

Facing Away From Back



Photo Direction: Southwest



Side #2 of Structure



Photo Direction: Southwest

Facing Away From Side #2



Photo Direction: Northeast

**Streetscape #1**

Photo Direction: East



**Streetscape #2**

Photo Direction: West



Address

Photo Direction: South



Environmentally Sensitive Areas

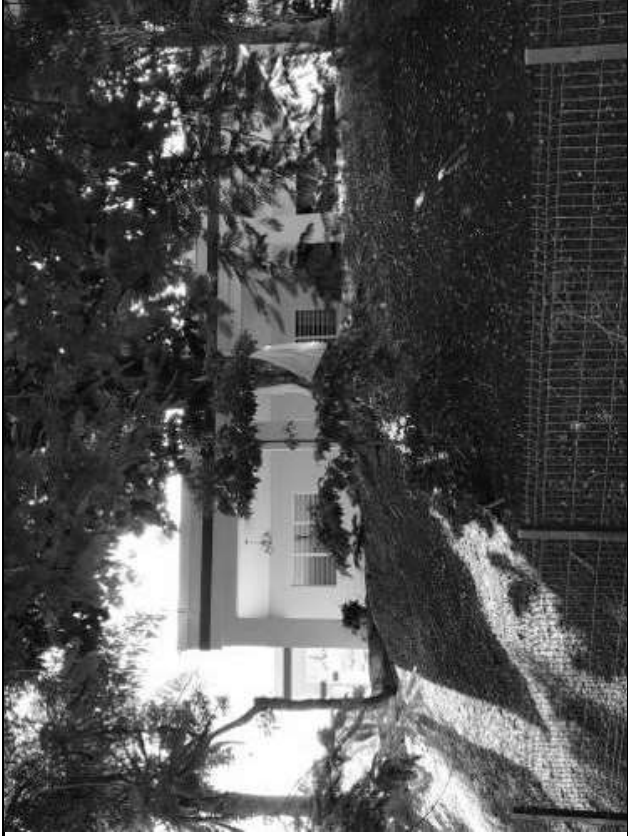
Photo Description: Water creek

Photo Direction: South



Structural Details

Photo Description: Architectural details  
Photo Direction: Southeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Southeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Southwest



Structural Details

Photo Description: Architectural details  
Photo Direction: North



Structural Details

Photo Description: Architectural details

Photo Direction: Southeast



Structural Details

Photo Description: Architectural details

Photo Direction: Southeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Northeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Southwest





Structural Details

Photo Description: Architectural details  
Photo Direction: Southeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Southeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Southeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Northeast



Structural Details

Photo Description: Architectural details  
Photo Direction: Southwest



Structural Details

Photo Description: Architectural details  
Photo Direction: South



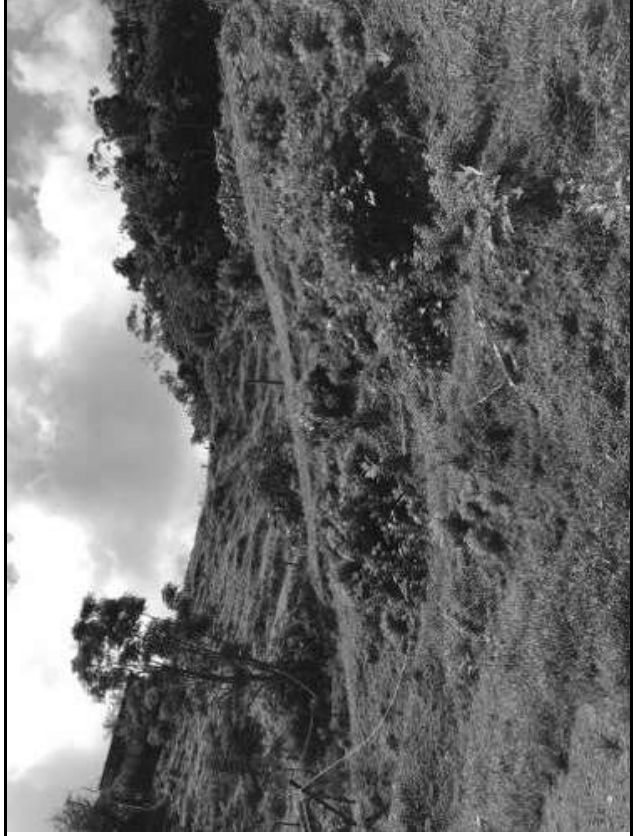
Structural Details

Photo Description: Architectural details  
Photo Direction: South



Structural Details

Photo Description: Architectural details  
Photo Direction: East



Structure Occupied

Photo Description: Chicken ranch 260' x 40'  
Photo Direction: West



Structure Occupied

Photo Description: Pork ranch  
Photo Direction: Southwest



Electricity Connected

Photo Description: Power connection

Photo Direction: Northeast



Water Connected

Photo Description: Water connected.

Photo Direction: East



55-Gallon Drums

Photo Description: 55 gallons drums

Photo Direction: North





Aboveground Storage Tanks

Photo Description: Water reserve  
Photo Direction: North



Aboveground Storage Tanks

Photo Description: Steel silos  
Photo Direction: West



Aboveground Storage Tanks

Photo Description: 3 x 118 gallons

Photo Direction: West



Aboveground Storage Tanks

Photo Description: Steel silos

Photo Direction: South



Warehouse Use

Photo Description: Warehouse

Photo Direction: Northeast



Standing Water

Photo Description: Water creek  
Photo Direction: Southeast



Wetlands

Photo Description: Water creek

Photo Direction: East



**Scope Of Work**

Photo Description: Scope of work 1: water well

Photo Direction: Southwest



**Scope Of Work**

Photo Description: Scope of work 1: water well

Photo Direction: South



**Scope Of Work**

Photo Description: Scope of work 1: water well  
Photo Direction: Southeast



**Scope Of Work**

Photo Description: Scope of work 1: water well power connection  
Photo Direction: Northeast



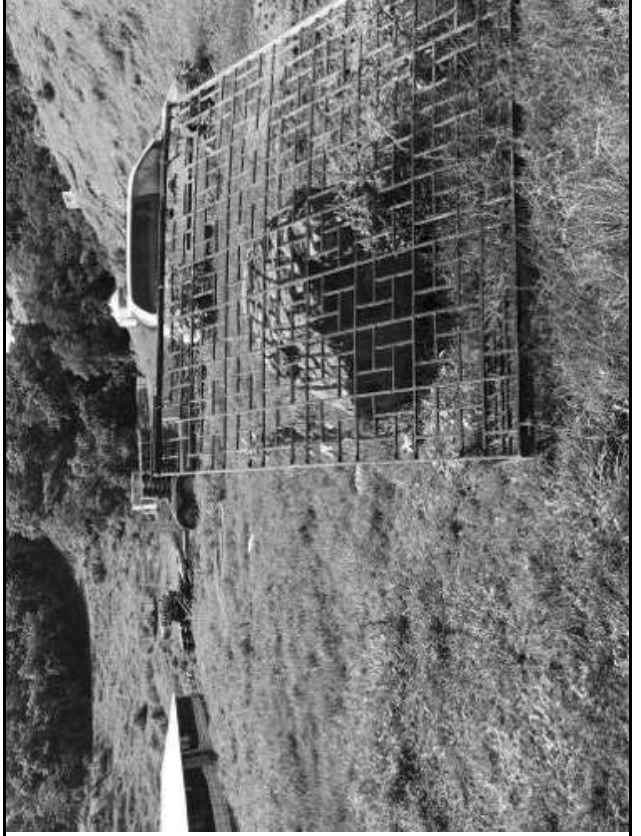
**Scope Of Work**

Photo Description: Scope of work 1: water well, water connection underground to connect to existing PVC tube water system  
Photo Direction: Northwest



**Scope Of Work**

Photo Description: Scope of work 2: solar panels system  
Photo Direction: South





**Scope Of Work**

Photo Description: Scope of work 2: solar panels system  
Photo Direction: East



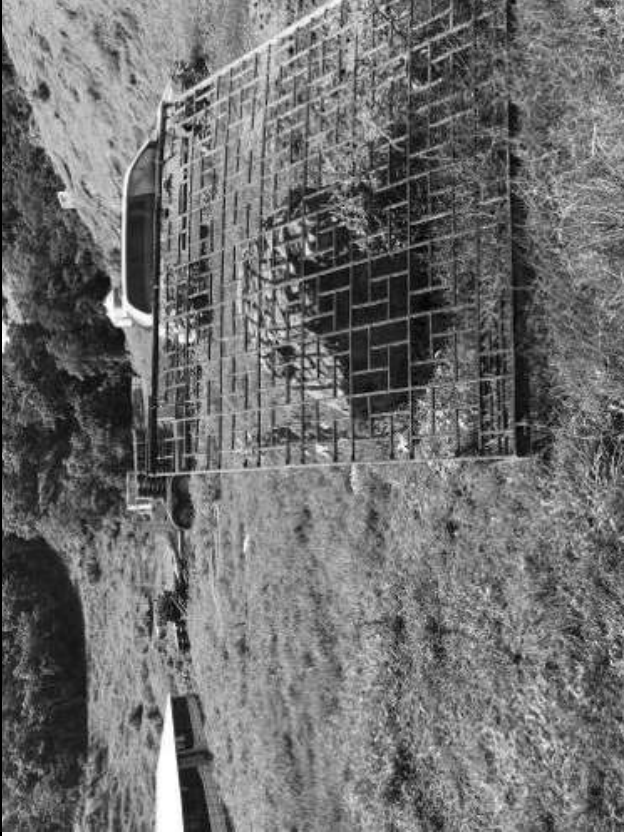
**Scope Of Work**

Photo Description: Scope of work 2: solar panels system  
Photo Direction: East



**Scope Of Work**

Photo Description: Scope of work 2: solar panels system  
Photo Direction: Southwest



**Scope Of Work**

Photo Description: Scope of work 2: electrical conduit underground from the solar power system  
Photo Direction: Southwest



**Scope Of Work**

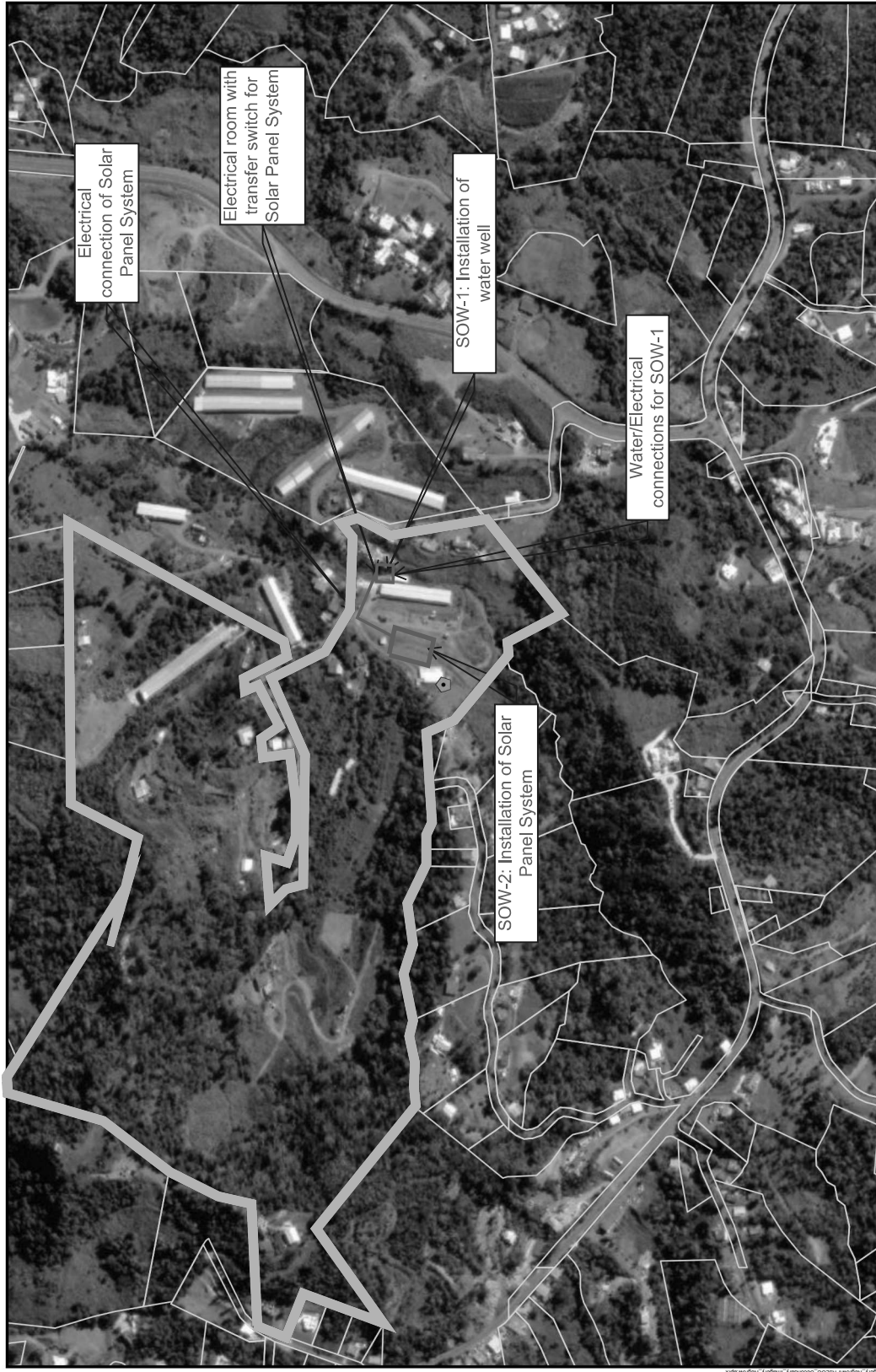
Photo Description: Scope of work 2: main electrical panel

Photo Direction: Southeast



# APPENDIX B

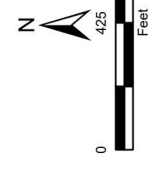
## Maps



**Legend**

-  Project Parcel
-  Parcels
-  Area of Potential Effect
-  Project Parcel

**PUERTO RICO**



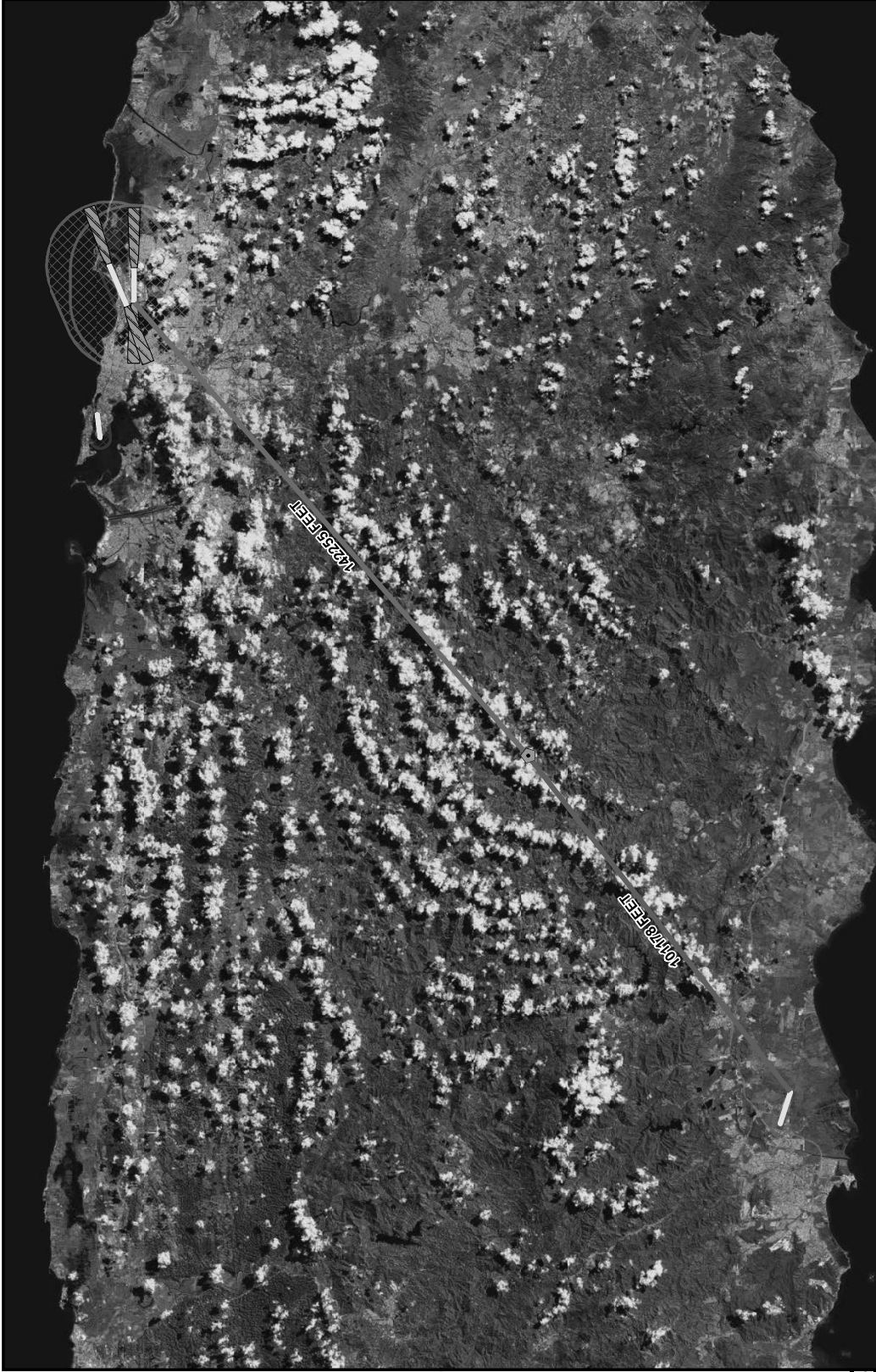
**Figure 1: PROJECT LOCATION**  
**APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
 Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323898



Source: ESRI  
<https://www.fws.gov>  
 Author: TG

Date: 10/27/2023



- Legend**
- Civilian Runway Protection Zones
  - Military Accident Potential Zones
  - Airport Runways
  - Civilian Airport 2,500 Feet Buffer
  - Military Airport 15,000 Feet Buffer

Distance to Nearest Airport  
in Feet: 101178

**PUERTO RICO**



Source: USDOT  
<https://www.faa.gov>

Author: TG  
Date: 10/9/2023

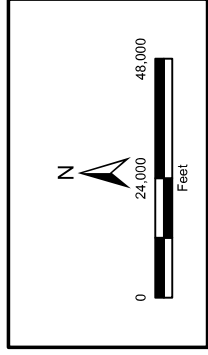
**Figure 2: AIRPORT ZONES**

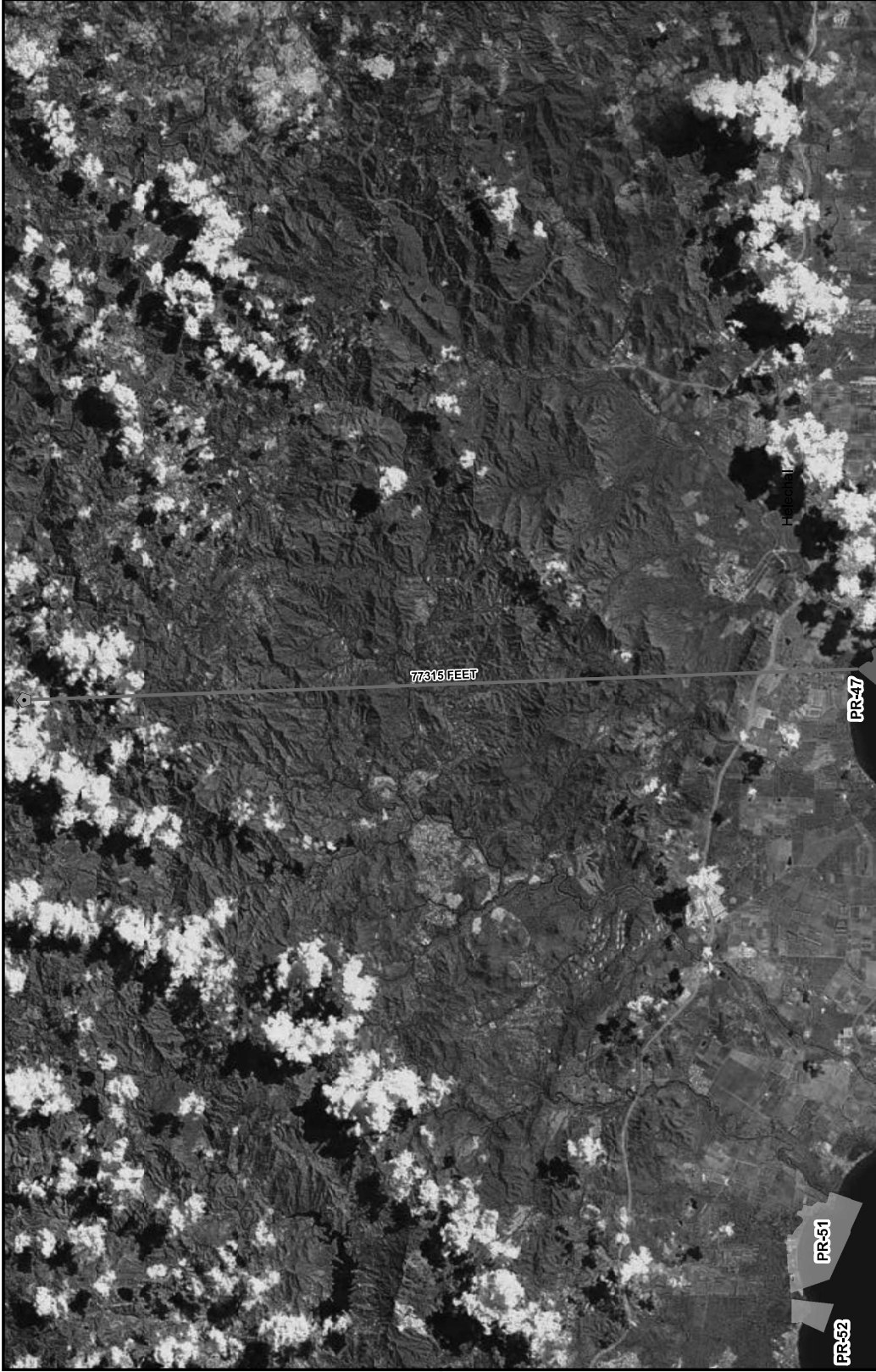
**APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave, Jose Zayas Green Bo, Helechal, PR 00794

Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

Parcel Coordinates: 18.177058, -66.323898





**Legend**

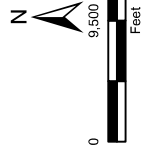
Project Parcel

Coastal Barrier Resources System Boundary

- PR-47
- PR-50
- PR-51
- PR-52

Distance to Nearest Coastal Barrier Resources System in Feet:  
77315 Feet

**PUERTO RICO**



**Figure 3: COASTAL BARRIERS IMPROVEMENT ACT  
APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave, Jose Zayas Green Bo, Helechal, PR 00794  
 Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323898

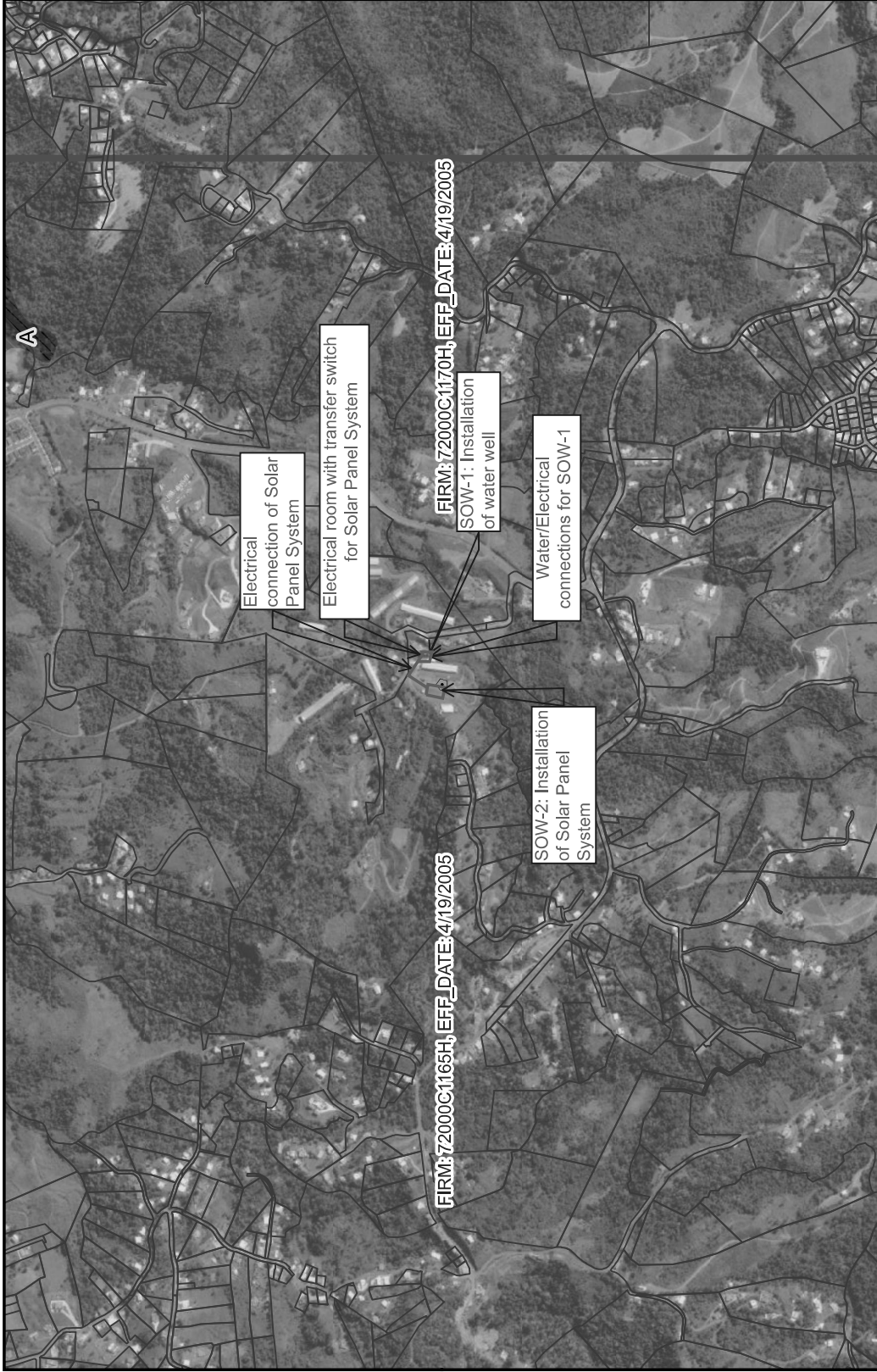


**TETRA TECH**

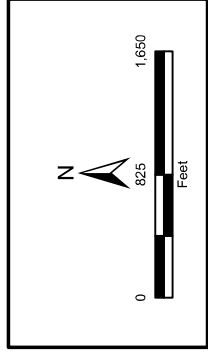
Source: U. S. Fish & Wildlife Service  
<https://www.fws.gov>

Author: TG Date: 6/29/2023

- Legend**
- Project Parcel
  - Parcels
  - FIRM Panels
  - Floodway
  - 100 Yr Floodzone
  - 500 Yr Floodzone
  - Area Of Minimal Flood Hazard
  - Unmapped for Floodplain



**PUERTO RICO**



**Figure 4: FLOODPLAIN MANAGEMENT  
APPLICANT ID: PR-RGRW-00801**

ADDRESS: Rainal 152 Km 0.1 Interior Ave. Jose Zayas Green Bc. Helechal, PR 00794  
 Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: -18.177058, -66.323898



**TETRA TECH**

Source: FEMA  
<https://msc.fema.gov>  
 Date: 1/25/2024

Author: TG



**Legend**

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

- SPECIAL FLOOD HAZARD AREAS**
- Without Base Flood Elevation (BFE)
  - With BFE or Depth, Zone AE, 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 of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard
  - Area with Reduced Flood Risk due to Levees, Sea Walls, Zone X
  - Area with Flood Risk due to Levees, Zone D

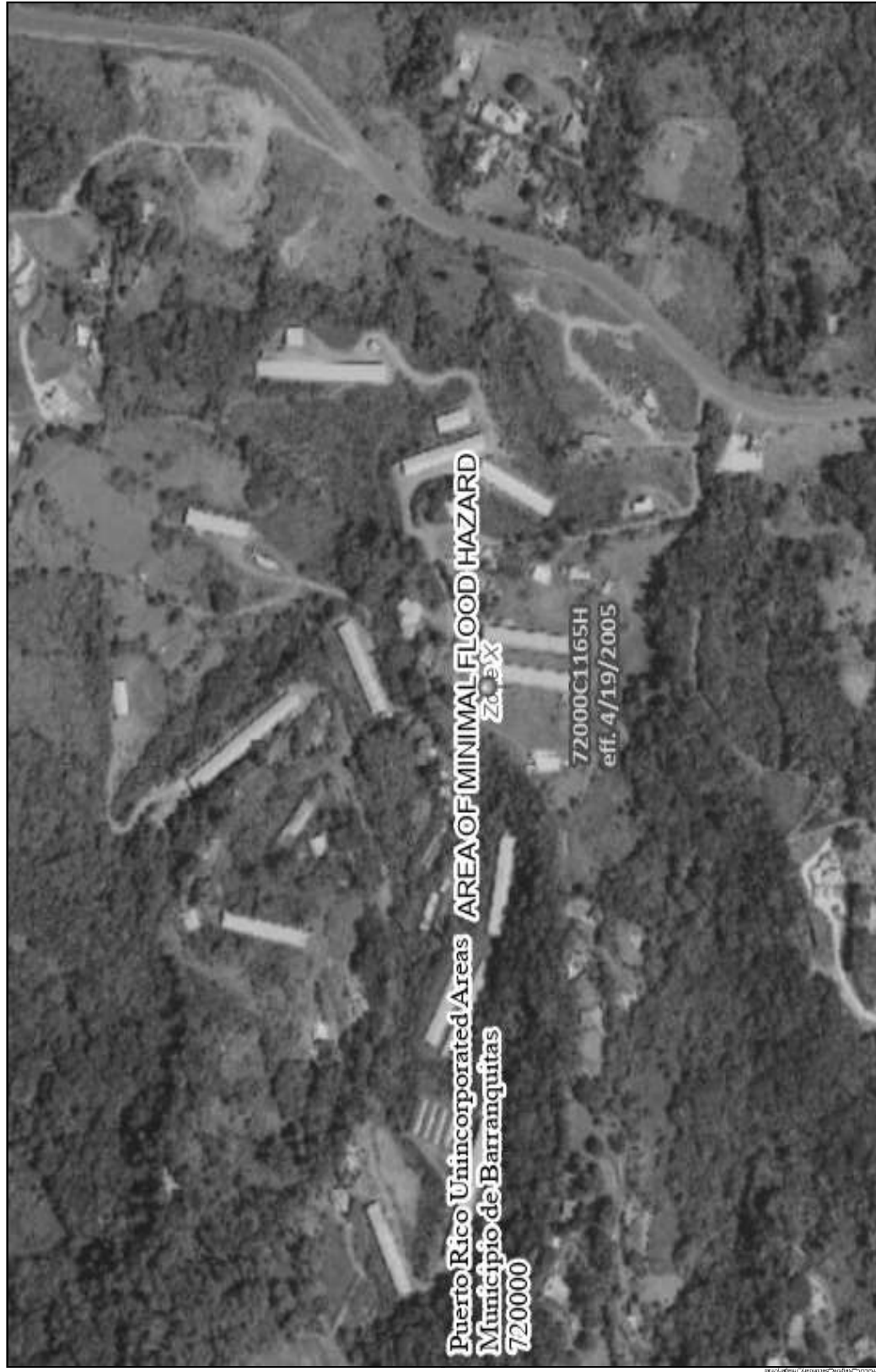
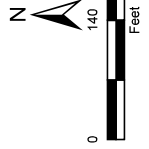
- OTHER AREAS**
- NO SCREEN
  - Area of Minimal Flood Hazard, Zone X
  - Effective LOMRS
  - Area of Undetermined Flood Hazard, Zone D
- GENERAL STRUCTURES**
- Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall

- OTHER FEATURES**
- 2002 Cross Sections with 1% Annual Chance
  - Water Surface Elevation
  - Coastal Transsect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transsect 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.

**PUERTO RICO**



**FIGURE 5: NATIONAL FLOOD HAZARD LAYER FIRMETTE**

**APPLICANT ID: PR-RGRW-00801**

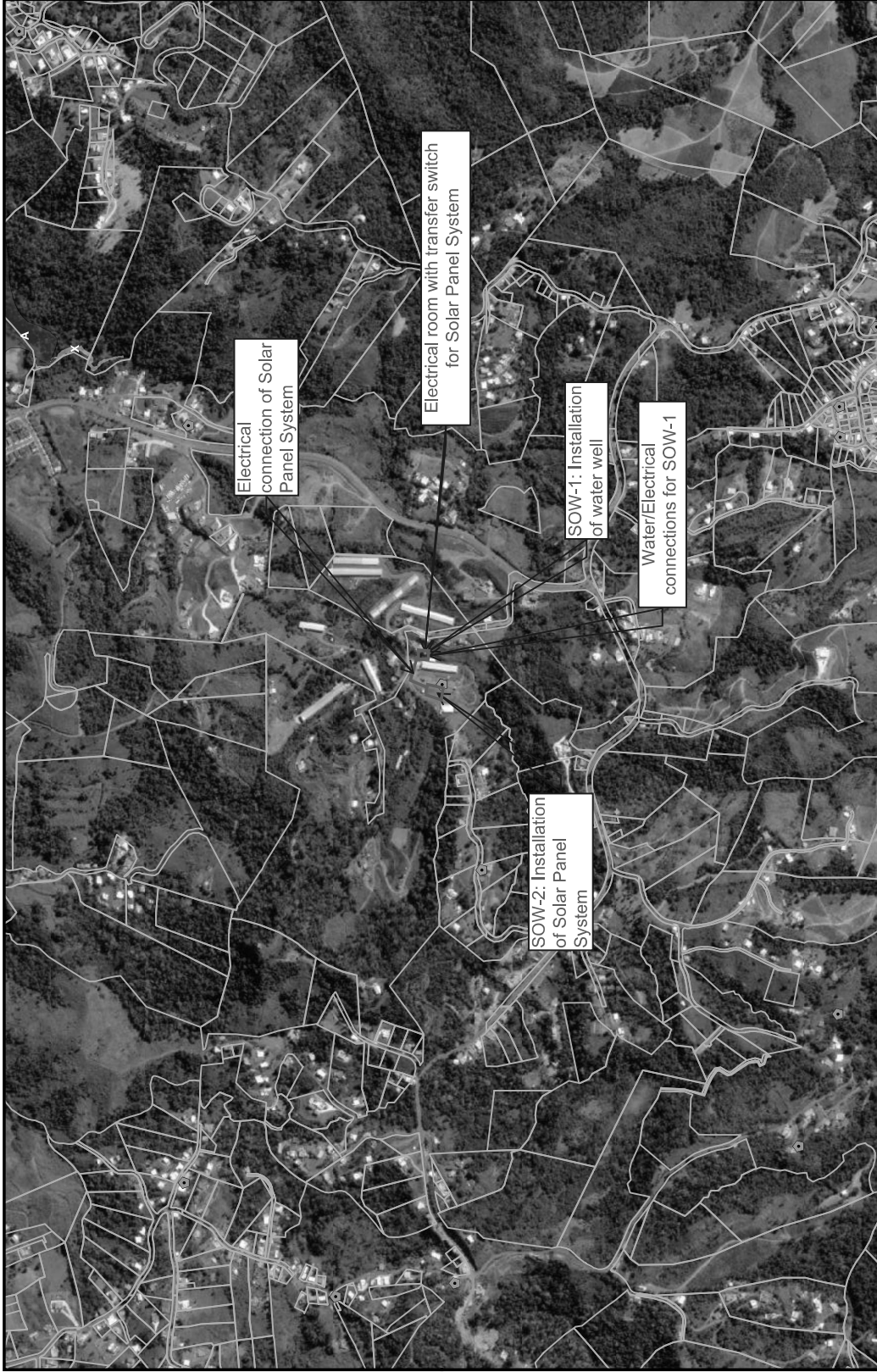
ADDRESS: Ramal 182 Km 0.1 Interior Ave. Jose Zayas Green Bc. Helechal, PR 00794  
 Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323898



**TETRA TECH**

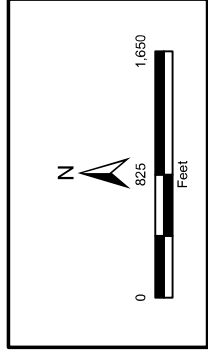
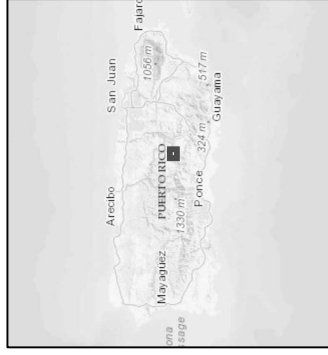
Source: FEMA  
<https://www.msc.fema.gov>  
 Author: TG

Date: 5/31/2023



- Legend**
- Project Parcel
  - Parcels
  - ABFE Floodzone
  - A
  - X

**PUERTO RICO**



**Figure 6: ADVISORY BASE FLOOD ELEVATION  
APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
 Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323898



Source: FEMA  
<https://gis.fema.gov>

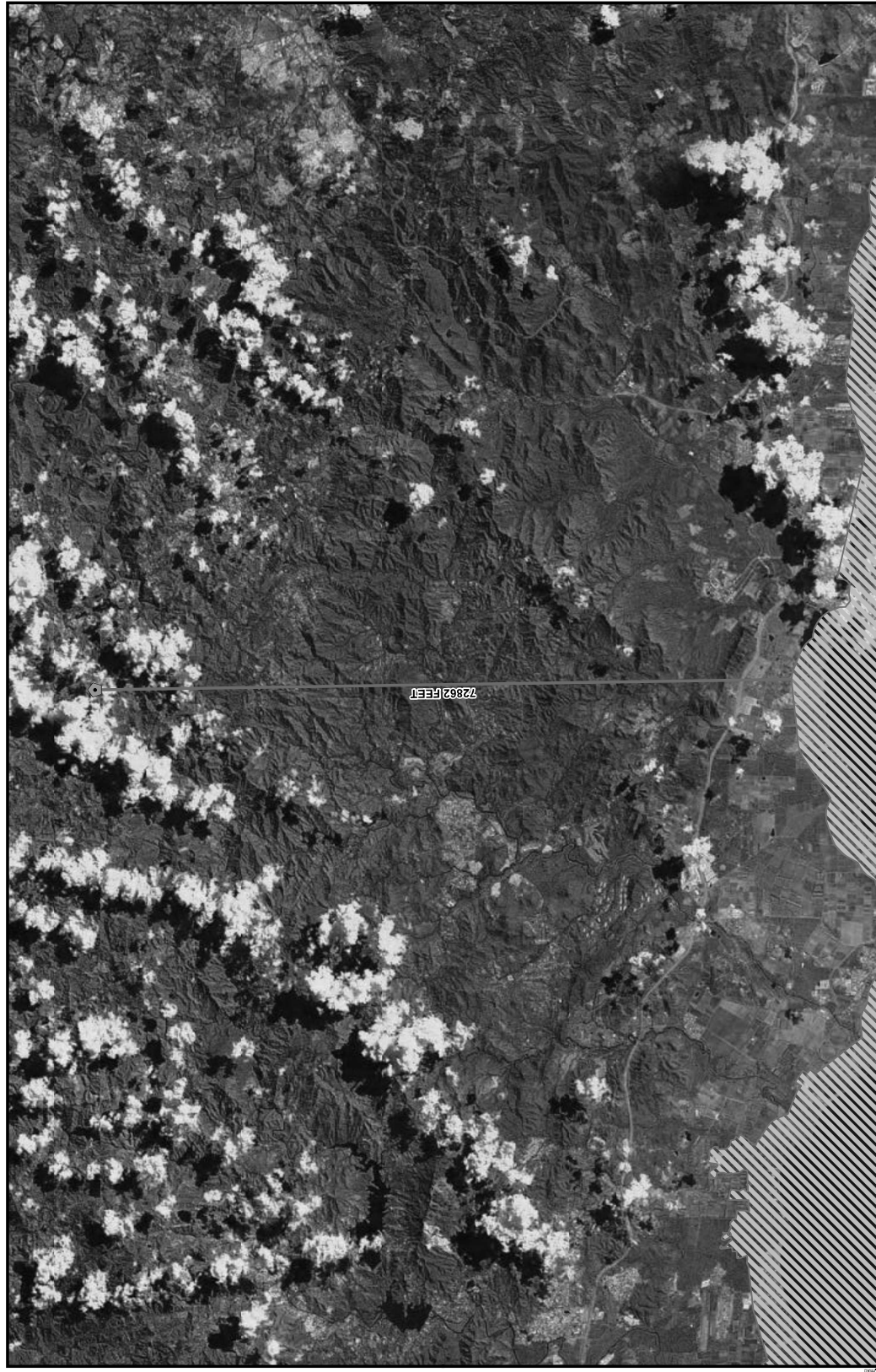
Author: TG Date: 11/20/2023

**Legend**

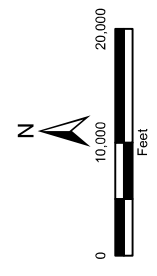
Project Parcel

Coastal Zone Management Boundary

Distance to Nearest Coastal Zone:  
72862 Feet



**PUERTO RICO**

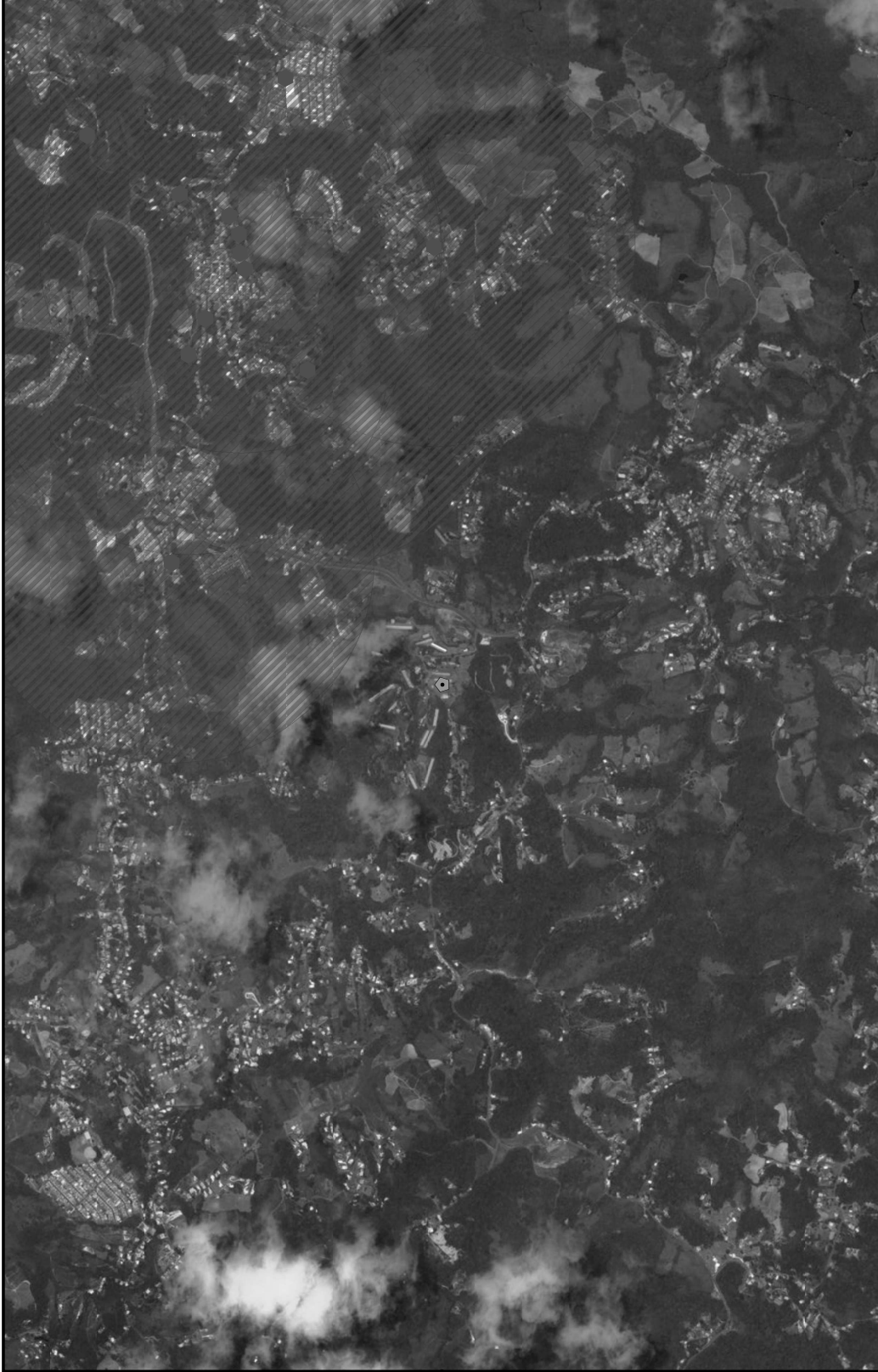


**Figure 7: COASTAL ZONE MANAGEMENT  
APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
Parcel Coordinates: 18.177058, -66.323888



Source: NOAA's Ocean Service  
<https://data.noaa.gov>  
Author: TG  
Date: 6/29/2023



- Legend**
- Project Parcel
  - RCRA
  - Toxic Release Inventory Site
  - Superfund Site
  - Brownfield Sites
  - ParcelsForMapRun\_WMAS\_ReGrow
  - 3000 Ft Buffer TRI
  - 3000 Ft Buffer Superfund
  - 3000 Ft Buffer RCRA
  - 3000 Ft Buffer Brownfield

**PUERTO RICO**



**Figure 8: TOXIC CHEMICALS AND GASES, HAZARDOUS MATERIALS, CONTAMINATION, AND RADIOACTIVE SUBSTANCES**  
**APPLICANT ID: PR-RGRW-00801**

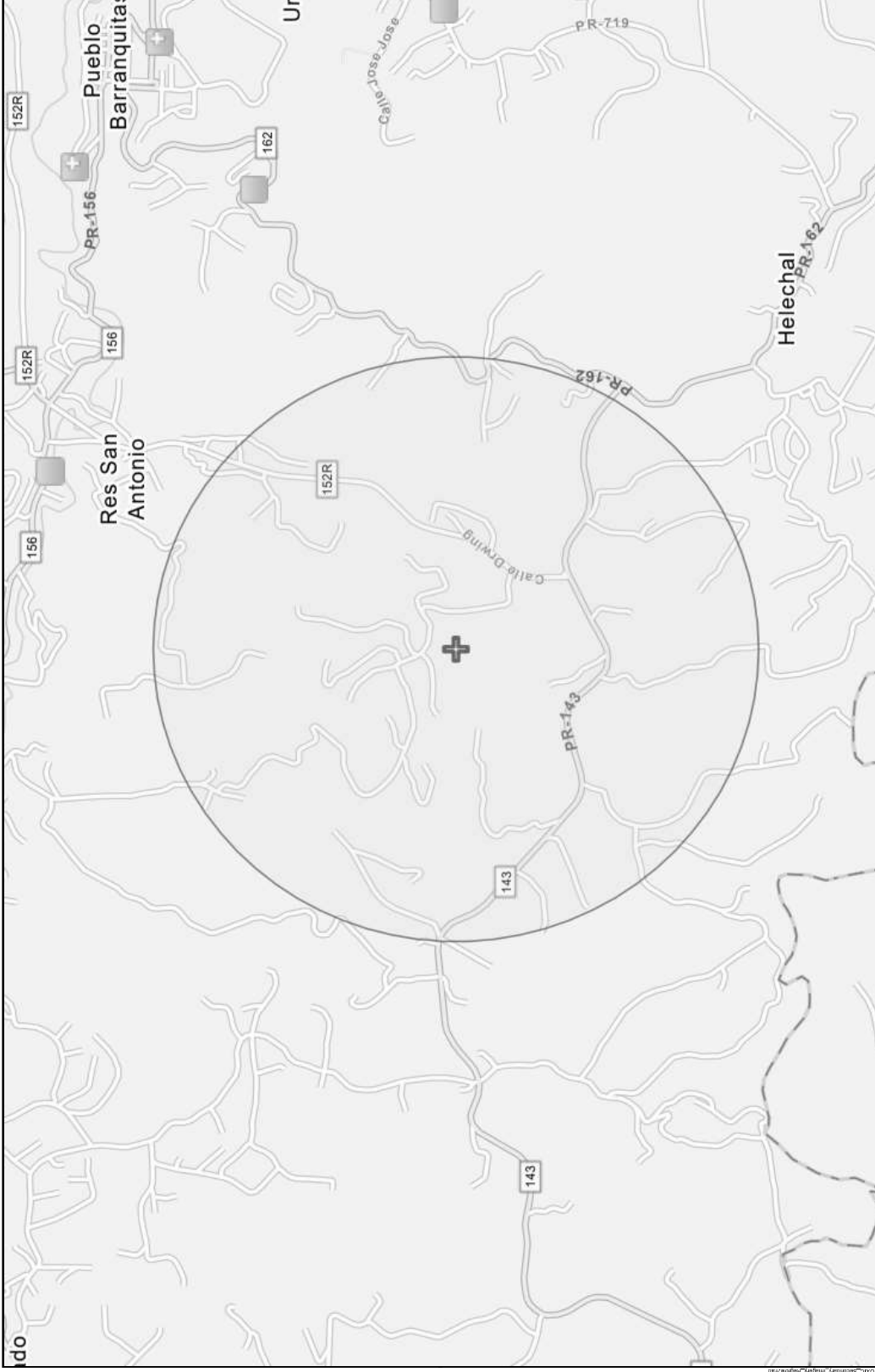
ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
 Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323898

**TETRA TECH**

Source: E.P.A.  
<https://www.epa.gov/ris/igis/spatial-data-download-service>  
 Author: JBAK  
 Date: 6/29/2023

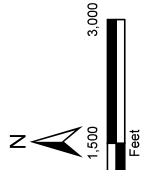
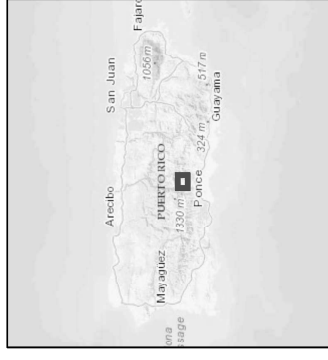
N

0 1,600 3,200  
Feet



- Legend**
- Superfund (NPL)
  - Toxic Substances Control Act (TSCA)
  - Toxic Releases (TRI)
  - Brownfields (ACRES)
  - Hazardous Waste (RCRAInfo)
  - Project Parcel

**PUERTO RICO**



**Figure 9: NEPA Assist Map**

**APPLICANT ID: PR-RGRW-00801**

**ADDRESS:** Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
**Name of Development:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323898



**TETRA TECH**

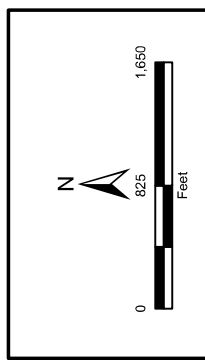
Source: E.P.A.  
<https://www.epa.gov/signis/patrol-state-download-service>  
 Author: JBAK  
 Date: 5/18/2023



**Legend**

- Project Parcel
- Parcels
- Area of Critical Habitat



**PUERTO RICO**



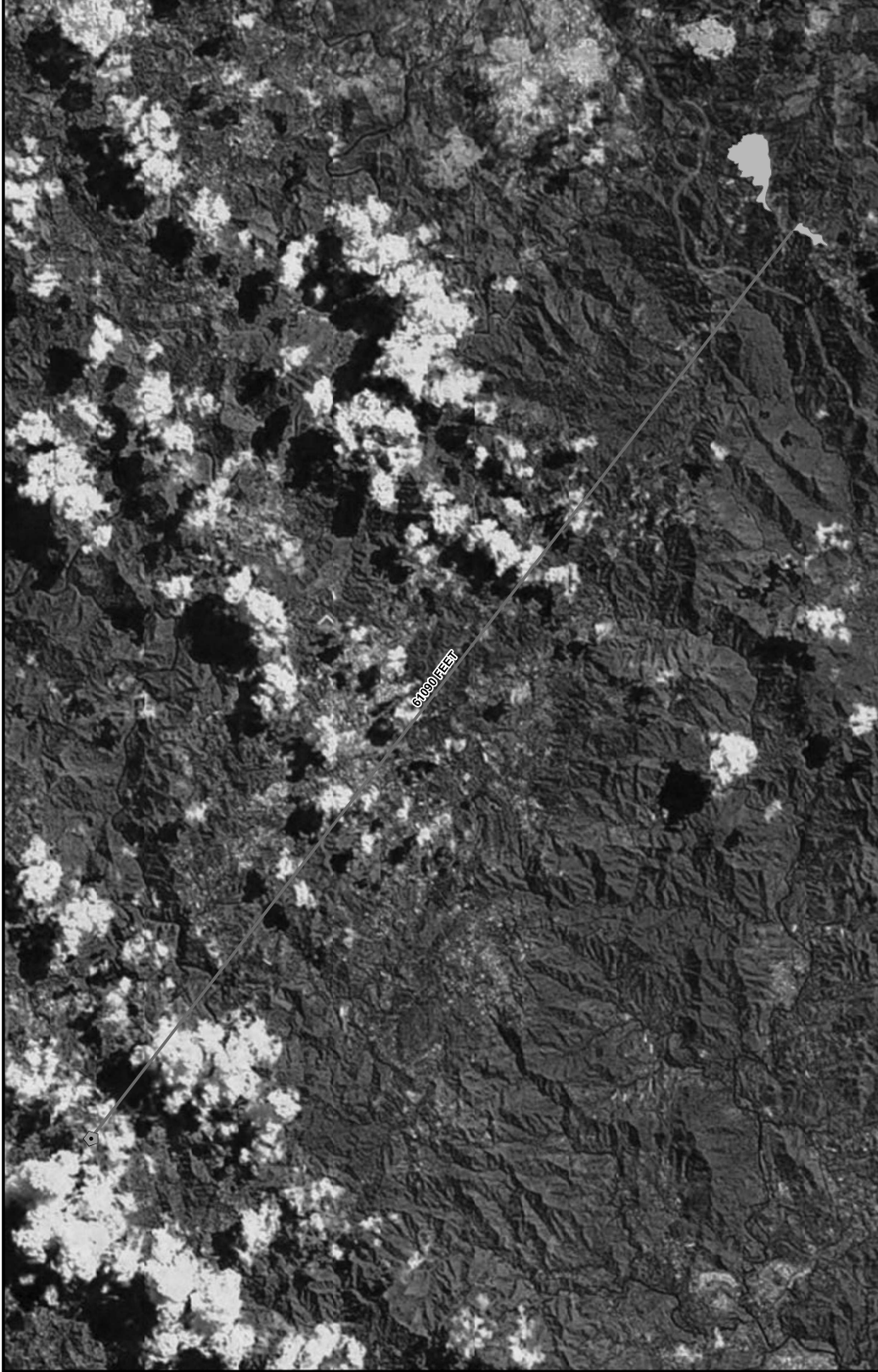
**Figure 10: ENDANGERED SPECIES ACT**  
**APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
 Name of Development:  
 Parcel Coordinates: 18.177058, -66.323698

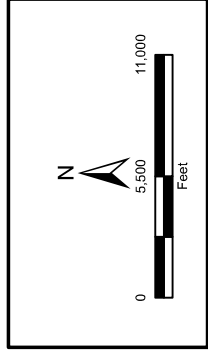
**TETRA TECH**  
 Source: U.S. FISH & WILDLIFE SERVICE  
<https://ecos.fws.gov>  
 Author: TG  
 Date: 1/25/2024

- Legend**
-  Project Parcel
  - comname**
  -  Golden coqui

Distance to Nearest Critical Habitat in Feet:  
61090 Feet



**PUERTO RICO**



**Figure 11: CRITICAL HABITATS  
APPLICANT ID: PR-RGRW-00801**

**ADDRESS:** Ramal 152 Km 0.1 Interior Ave., Jose Zayas Green Bo. Helechal, PR 00794  
**Name of Development:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18-177058, -66-323898



Source: U.S. FISH & WILDLIFE SERVICE  
<https://ecos.fws.gov>

Author: TG Date: 6/29/2023



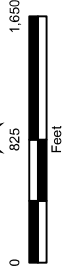
**Legend**

Project Parcel

**Farm Class**

- All areas are prime farmland
- Farmland of statewide importance
- Farmland of statewide importance, if irrigated
- Prime farmland if drained
- Prime farmland if irrigated
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Prime farmland if protected from flooding or not frequently flooded during the growing season

**PUERTO RICO**



**Figure 12: FARMLAND PROTECTION  
 APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794

Name of Development: **ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL**

Parcel Coordinates: 18.177058, -66.323898



**TETRA TECH**

Source: USDA

<https://websolisurvey.sc.egov.usda.gov>

Author: TG

Date: 1/25/2024

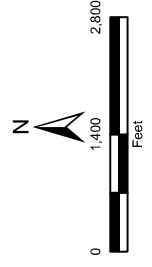




**Legend**

- Project Parcel
- Historic ICP Sites
- Cultural Resource Building Point
- Cultural Resource District Point
- Cultural Resource Site Point
- Cultural Resource Structure Point
- Historic Comunidades
- Traditional Urban Centers
- Cultural Resource Building Polygon
- Cultural Resource District Polygon
- Cultural Resource Site Polygon
- Cultural Resource Structure Polygon
- 1 Mile Property Buffer

**PUERTO RICO**



**Figure 13: HISTORIC PRESERVATION  
 APPLICANT ID: PR-RGRW-00801**

**ADDRESS:** Ramal 152 Km 0,1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794  
**Name of Development:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL  
 Parcel Coordinates: 18.177058, -66.323698



Source: National Park Service  
<https://www.nps.gov/>  
 Author: TG

Date: 6/29/2023

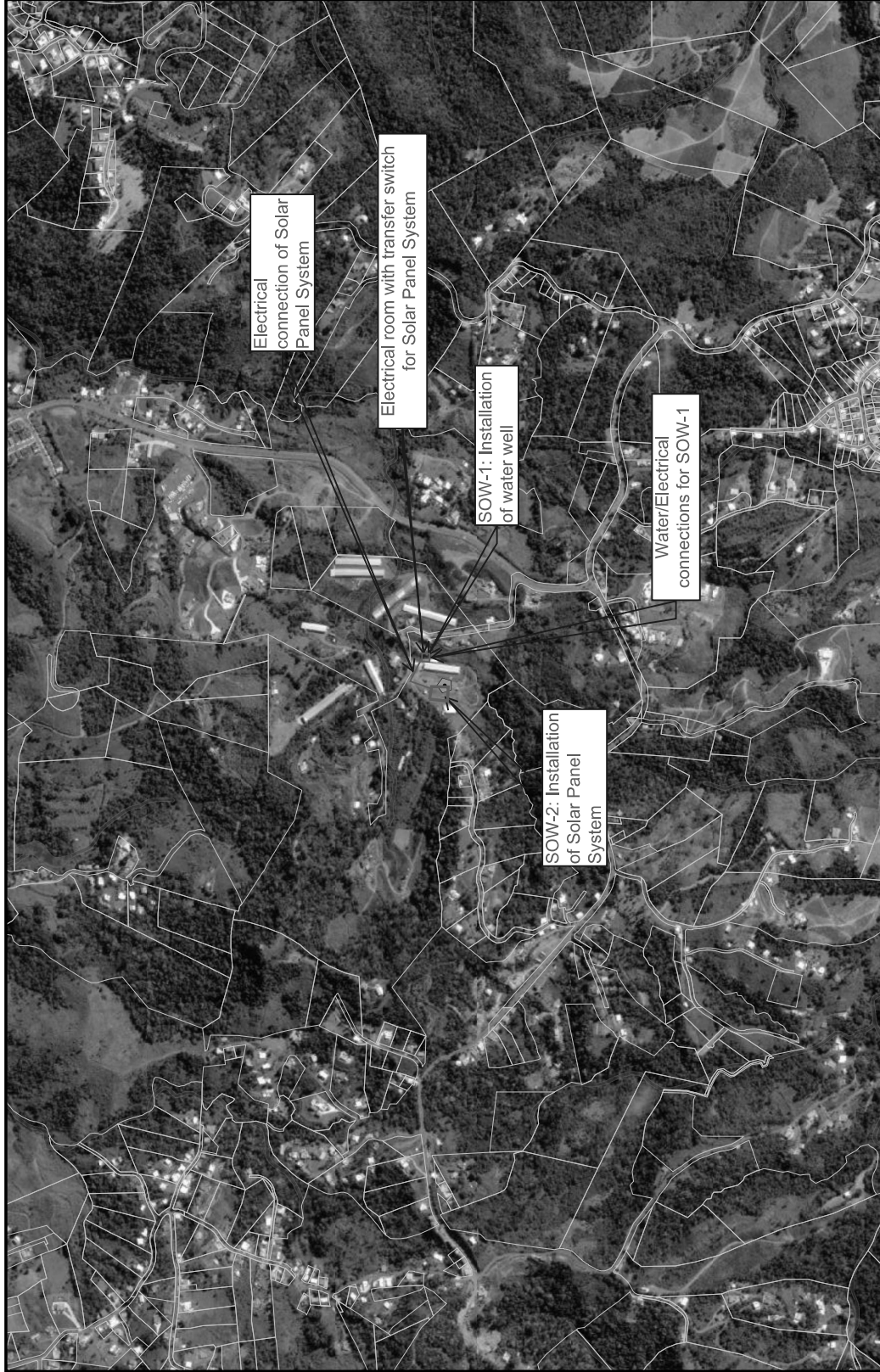
**Legend**

Project Parcel

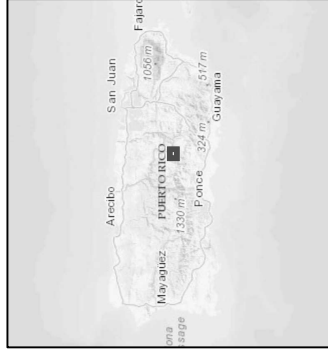
Parcels

**WETLAND TYPE**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Strub Wetland
- Freshwater Pond
- Lake
- Riverine

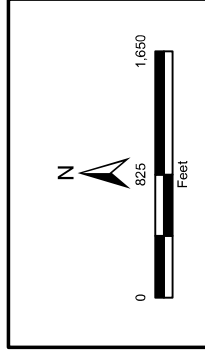


**PUERTO RICO**



**Figure 14: WETLANDS**  
**APPLICANT ID: PR-RGRW-00801**  
**ADDRESS: Ramal 152 Km 0.1 Interior Ave, Jose Zayas Green Bo, Helechal, PR 00794**  
 Name of Development: \_\_\_\_\_  
 Parcel Coordinates: 18,177058, -66.323898

**TETRA TECH**  
 Sources: U. S. Fish & Wildlife Service  
<https://www.fws.gov>  
 Author: TG  
 Date: 1/25/2024






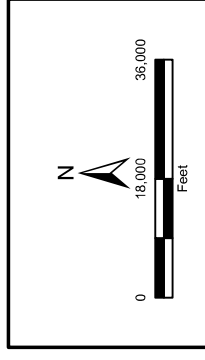
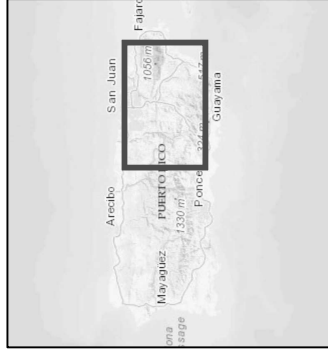
**Legend**

-  Project Parcel
-  Wild and Scenic Rivers

Distance to Nearest Wild and Scenic River in Feet: 198315 Feet

 <p><b>TETRA TECH</b></p> <p>Source: U. S. Forest Service  <a href="https://www.fs.usda.gov">https://www.fs.usda.gov</a></p> <p>Author: TG</p> <p>Date: 6/29/2023</p>	<p style="text-align: center;"><b>Figure 15: WILD AND SCENIC RIVERS ACT</b>  <b>APPLICANT ID: PR-RGRW-00801</b></p> <p style="text-align: center;">ADDRESS: Ramal 152 Km 0.1 Interior Ave, Jose Zayas Green Bo. Helechal, PR 00794          Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL          Parcel Coordinates: 18.177058, -66.323898</p>
--	--

**PUERTO RICO**



**Legend**

Project Parcel

Parcels

**Landslide Susceptibility**

Extremely High

Very High

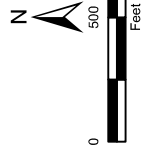
High

Moderate

Low



**PUERTO RICO**



**Figure 16: SLOPE AND EROSION  
APPLICANT ID: PR-RGRW-00801**

ADDRESS: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, PR 00794

Name of Development: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

Parcel Coordinates: -18.177058, -66.323898



**TETRA TECH**

Source: PRDOH  
<https://legis.maps.arcgis.com/apps/webappviewer/index.html?id=1050bec2715491d4ee176c7119216ee>

Author: TG Date: 1/12/2024

# **APPENDIX C**

## Additional Information



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 December 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/m<sup>3</sup>) 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:

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	
<b>PUERTO RICO</b>												
Arecibo Municipio (2008)	Lead	Arecibo, PR					11121314151617181920212223	//		Part	32,185	72/013
Bayamon Municipio (2010)	Sulfur Dioxide	San Juan, PR					181920212223	//		Part	22,921	72/021
Catano Municipio (2010)	Sulfur Dioxide	San Juan, PR					181920212223	//		Whole	28,140	72/033
Guaynabo Municipio (1987)	PM-10	Mun. of Guaynabo, PR					929394959697989900010203040506070809	02/11/2010	Moderate	Part	90,470	72/061
Guaynabo Municipio (2010)	Sulfur Dioxide	San Juan, PR					181920212223	//		Part	23,802	72/061
Salinas Municipio (2010)	Sulfur Dioxide	Guayama-Salinas, PR					181920212223	//		Part	23,401	72/123
San Juan Municipio (2010)	Sulfur Dioxide	San Juan, PR					181920212223	//		Part	147,963	72/127
Toa Baja Municipio (2010)	Sulfur Dioxide	San Juan, PR					181920212223	//		Part	52,441	72/137

Important Notes

Discover.

Connect.

Ask.

# EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## Barranquitas Municipio, PR

1 mile Ring Centered at 18.177054,-66.323898

Population: 3,542

Area in square miles: 3.14

A3 Landscape



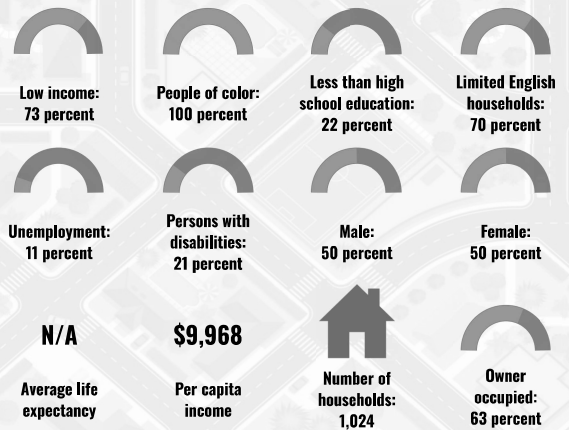
January 22, 2024

Project 1  
Search Result (point)

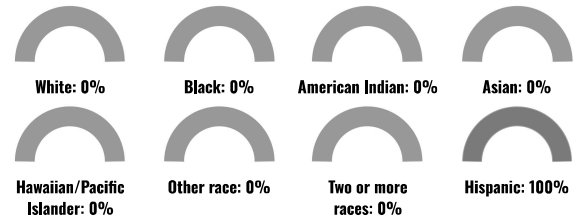


Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, HERE, DeLorme, IPC

### COMMUNITY INFORMATION



### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	4%
Spanish	96%
Total Non-English	96%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

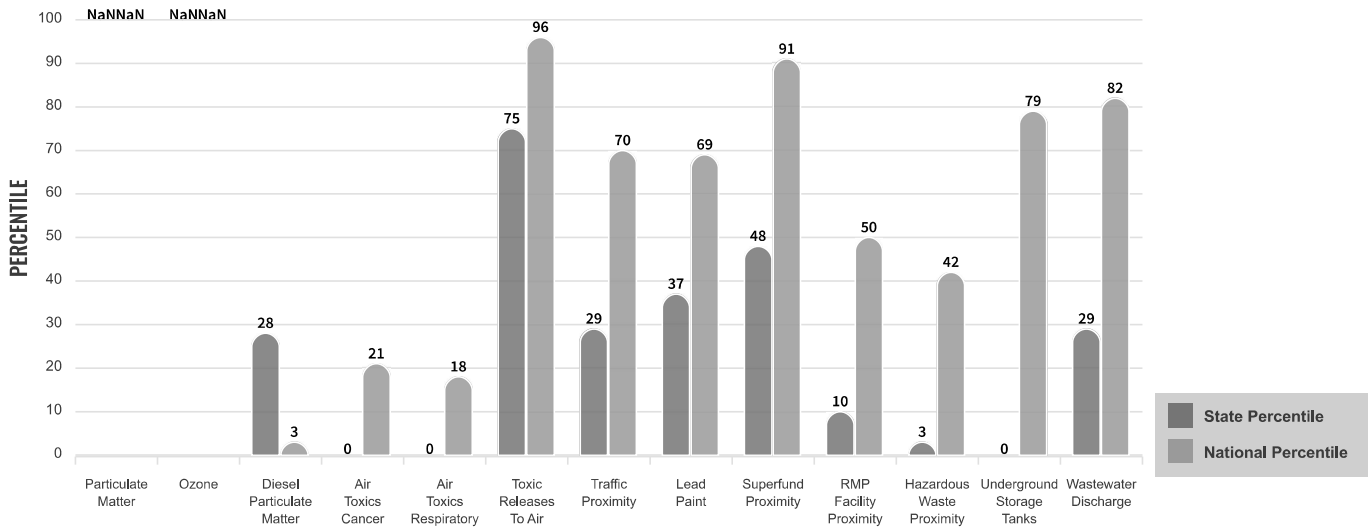
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

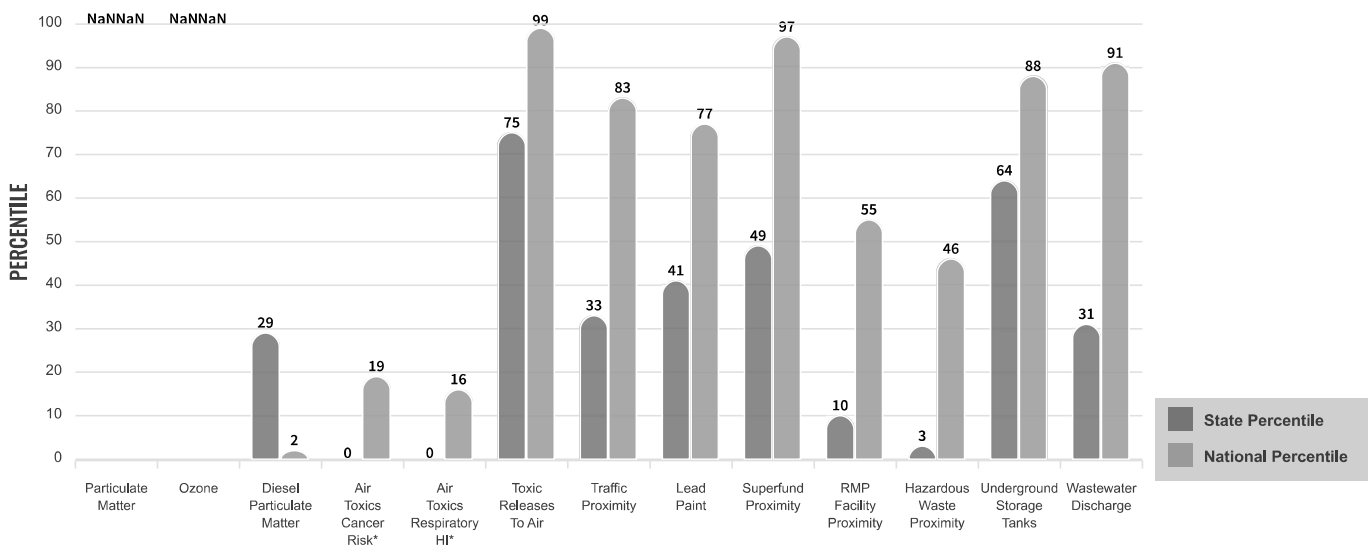
### EJ INDEXES FOR THE SELECTED LOCATION



## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 1 mile Ring Centered at 18.177054,-66.323898



# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>POLLUTION AND SOURCES</b>					
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 ( $\mu\text{g}/\text{m}^3$ )	0.0213	0.0667	27	0.261	1
Air Toxics Cancer Risk* (lifetime risk per million)	10	20	0	25	1
Air Toxics Respiratory HI*	0.1	0.19	0	0.31	1
Toxic Releases to Air	1,700	4,300	75	4,600	69
Traffic Proximity (daily traffic count/distance to road)	36	180	34	210	33
Lead Paint (% Pre-1960 Housing)	0.087	0.16	48	0.3	33
Superfund Proximity (site count/km distance)	0.075	0.15	46	0.13	57
RMP Facility Proximity (facility count/km distance)	0.061	0.47	9	0.43	14
Hazardous Waste Proximity (facility count/km distance)	0.057	0.76	2	1.9	11
Underground Storage Tanks (count/km <sup>2</sup> )	0.97	1.7	67	3.9	47
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0046	2.3	52	22	61
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index	86%	83%	46	35%	98
Supplemental Demographic Index	44%	43%	47	14%	99
People of Color	100%	96%	31	39%	98
Low Income	73%	70%	45	31%	95
Unemployment Rate	11%	15%	46	6%	84
Limited English Speaking Households	70%	67%	49	5%	99
Less Than High School Education	22%	21%	55	12%	84
Under Age 5	3%	4%	47	6%	28
Over Age 64	16%	22%	28	17%	54
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>.

## Sites reporting to EPA within defined area:

Superfund .....	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities .....	0
Water Dischargers .....	1
Air Pollution .....	0
Brownfields .....	0
Toxic Release Inventory .....	0

## Other community features within defined area:

Schools .....	0
Hospitals .....	0
Places of Worship .....	0

## Other environmental data:

Air Non-attainment .....	No
Impaired Waters .....	Yes

Selected location contains American Indian Reservation Lands* .....	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community .....	Yes
Selected location contains an EPA IRA disadvantaged community .....	Yes

# EJScreen Environmental and Socioeconomic Indicators Data

## HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	N/A	N/A	N/A	20%	N/A
Heart Disease	N/A	N/A	N/A	6.1	N/A
Asthma	N/A	N/A	N/A	10	N/A
Cancer	N/A	N/A	N/A	6.1	N/A
Persons with Disabilities	20.2%	21.6%	40	13.4%	86

## CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	N/A	N/A	N/A	12%	N/A
Wildfire Risk	N/A	N/A	N/A	14%	N/A

## CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	35%	32%	60	14%	92
Lack of Health Insurance	4%	7%	24	9%	30
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

Report for 1 mile Ring Centered at 18.177054,-66.323898

**APPENDIX D**  
Endangered Species

Date: November 8, 2023

Applicant ID: PR-RGRW-00801

Street Address: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal

Municipality: Barranquitas

### **Subject – Endangered Species No Effect Determination for PR-RGRW-00801 SOW 1**

Tetra Tech conducted a site-specific review of endangered species in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*) for the proposed project located at Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, in the Municipality of Barranquitas, Puerto Rico (Parcel ID# 272-000-004-12).

The proposed project is for the location and drilling of a new 400-foot (ft) depth water well at coordinates 18.177344, -66.323353. The well installation includes the construction of an 8 ft x 8 ft concrete base. Power needed for the water pump will be provided via an underground electric conduit that will be installed at an approximate depth of 3 ft and connected to an adjacent existing electric connection located approximately 15 ft from the proposed well concrete pad. This water well will supply water to two existing water tanks measuring 10,000 gallons each. An approximate length of 25 ft of PVC piping at a depth of 2 ft will be installed to connect the existing water piping from the tanks to the final location of the well.

The property is used to raise chickens, with two large chicken houses directly east of the proposed project area and others throughout the parcel. The proposed project area is located on an already cleared space, with a road at the northern portion of the proposed project area. Surrounding landscape includes the previously mentioned chicken houses on cleared, flat land, as well as a major highway to the east, and forest to the south, outside of the parcel. No trees will be removed during this project.

The National Wetlands Inventory indicated that no wetlands are located within the construction area (Figure 14). A drainage ditch is located to the east of the property, outside of the proposed project area. No wetlands will be disturbed during this project.

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

Species	Status
Puerto Rican Boa ( <i>Chilabothrus inornatus</i> )	Endangered

No Critical Habitats were noted within the project area (Figure 10). Based on site review and site photos, no suitable habitat was found within the proposed project area for the

Puerto Rican Boa. Based on the nature of the project, previous site disturbance, scope of work, information available, and a careful analysis of the Project Site, and IPaC species list, we have made the following effects determinations:

Species	Effect Determination	Conservation Measures to be implemented (if needed)
Puerto Rican Boa ( <i>Chilabothrus inornatus</i> )	No Effect	No Conservation Measures

A 'No Effect' determination has been made based on the lack of suitable habitat for the Puerto Rican Boa, as well as previous disturbance and current land use of the proposed 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.

**Attachments:**

IPaC Resource List

Shelby McDowell



B.S. Biologist, Tetra Tech

Date: November 8, 2023

Applicant ID: PR-RGRW-00801

Street Address: Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal

Municipality: Barranquitas

## Subject – Endangered Species No Effect Determination for PR-RGRW-00801 SOW 2

Tetra Tech conducted a site-specific review of endangered species in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*) for the proposed project located at Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, in the Municipality of Barranquitas, Puerto Rico (Parcel ID# 272-000-004-12).

The proposed project is for the purchase and installation of 29 solar panels at coordinates 18.177135, -66.324014. The solar panels will be installed on a 40 ft x 40 ft concrete base. The applicant plans to directly connect the solar system to the existing main electrical panel located at 18.1776813, -66.3235992. An estimated length of 150 ft of underground electrical conduit at a depth of 3 ft will be required to connect the main panel of the farm to the PV panels. The field is not graded.

The property is used to raise chickens, with two large chicken houses directly west of the proposed project area and others throughout the parcel. The proposed project area is located on an already cleared space, with a road to the northwestern of the proposed project area. Surrounding landscape includes the previously mentioned chicken houses on cleared, flat land, as well as a major highway to the east, and forest to the south, outside of the parcel. No trees will be removed during this project.

The National Wetlands Inventory indicated that no wetlands are located within the construction area (Figure 14). A drainage ditch is located to the east of the property, outside of the proposed project area. No wetlands will be disturbed during this project.

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

Species	Status
Puerto Rican Boa ( <i>Chilabothrus inornatus</i> )	Endangered

No Critical Habitats were noted within the project area (Figure 10). Based on site review and site photos, no suitable habitat was found within the proposed project area for the Puerto Rican Boa. Based on the nature of the project, previous site disturbance, scope of work, information available, and a careful analysis of the Project Site, and IPaC species list, we have made the following effects determinations:

Species	Effect Determination	Conservation Measures to be implemented (if needed)
Puerto Rican Boa ( <i>Chilabothrus inornatus</i> )	No Effect	No Conservation Measures

A 'No Effect' determination has been made based on the lack of suitable habitat for the Puerto Rican Boa, as well as previous disturbance and current land use of the proposed 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.

**Attachments:**

IPaC Resource List

Shelby McDowell



B.S. Biologist, Tetra Tech



## 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](mailto:CARIBBEAN_ES@FWS.GOV)

In Reply Refer To:  
Project Code: 2024-0043983  
Project Name: PR-RGRW-00801

February 01, 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](mailto: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](mailto: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: 2024-0043983

Project Name: PR-RGRW-00801

Project Type: Restoration / Enhancement - Agricultural

Project Description: The proposed project site located at Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, Barranquitas, Puerto Rico (Parcel ID# 272-000-004-12), will be funded under the ReGrow PR Urban-Rural Agricultural Program. The proposed project is for the drilling and installation of a new water well and the purchase and installation of photovoltaic panels.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.1773013,-66.32392757996499,14z>



Counties: Barranquitas County, Puerto Rico

## ENDANGERED SPECIES ACT SPECIES

There is a total of 1 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

## REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6628">https://ecos.fws.gov/ecp/species/6628</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/XT6ZC7TFS5FQNDR7SNVMQADVC4/documents/generated/7159.pdf">https://ipac.ecosphere.fws.gov/project/XT6ZC7TFS5FQNDR7SNVMQADVC4/documents/generated/7159.pdf</a>	Endangered

## 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 Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, 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](#)".

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> 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](#)".

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

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

## 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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

## **IPAC USER CONTACT INFORMATION**

Agency: Tetra Tech  
Name: Shelby McDowell  
Address: 2301 Lucien Way #120  
City: Maitland  
State: FL  
Zip: 32751  
Email: shelby.mcdowell@tetrattech.com  
Phone: 4096591563

# USFWS Puerto Rican boa Conservation Measures

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## *Puerto Rican Boa*

Generated September 11, 2023 01:39 PM UTC, IPaC v6.97.0-rc3





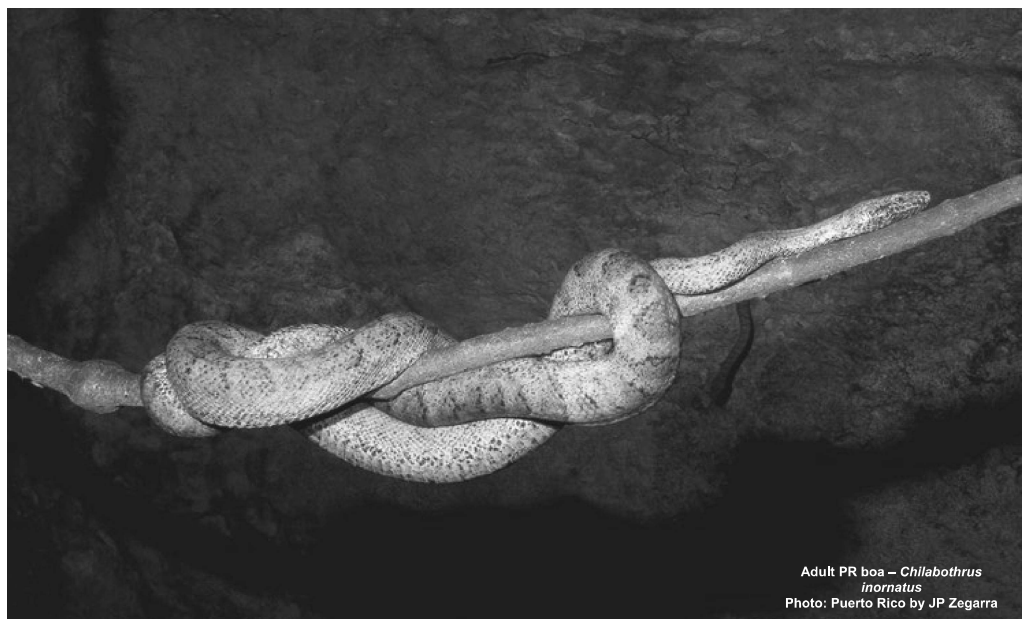


## U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

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

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

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



The Puerto Rican boa was federally listed in 1970. Currently, the species has an island-wide distribution and occurs in a wide variety of habitat types ranging from wet montane to subtropical dry forest, and can be found from mature forest to areas with different degrees of human disturbance like roadsides or houses, especially if near their habitat in rural areas. This boa is considered mostly nocturnal, remaining less active, concealed or basking under the sun during the day.

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

#### Conservation Measures:

1. Inform all project personnel about the potential presence of the PR boa in areas where the proposed work will be conducted. A pre-construction meeting should be conducted to inform all project personnel about the need to avoid harming the species as well as penalties for harassing or harming PR boas. An educational poster or sign with photo or illustration of the species should be displayed at the project site.
2. Prior to any construction activity, including removal of vegetation and earth movements, the boundaries of the project and areas to be excluded and protected should be clearly marked in the project plan and in the field in order to avoid further habitat degradation into forested and conservation areas.
3. Once areas are clearly marked, and prior to the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), a biologist or personnel with experience on this species should survey the areas to be cleared to verify the presence of any PR boa within the work area.
4. The PR boa is considered more active at night. Thus, in order to maximize its detection, the species should be searched at nights prior to habitat disturbance.
5. Once the area has been searched for PR boas, vegetation should first be cleared by hand to the maximum extent possible. Vegetation should be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow boas present on site to move away on their own to adjacent available habitat. Any stone walls or naturally occurring rock piles must be carefully dismantled by hand as these are refuges for the snake. This will allow any boas present to vacate the site without injury.
6. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. PR boa data should also include a photo of the animal (dead or alive), site GPS coordinates, the time and date, and comments on how the animal was detected and its behavior.

7. If a PR boa is found within any of the working or construction areas, activities should stop at that area and information recorded (see #6). **Do not capture the boa.** If boas need to be moved out of harm's way, designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #: ((787) 724-5700, (787) 230-5550, (787) 771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue.
8. If a PR boa is captured by the PRDNER, record the name of the PRDNER staff and information on where the PR boa will be taken. This information should be reported to the Service.
9. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal (see #7). If not possible, the animal should be left alone until it leaves the vehicle on its own.
10. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future.
11. If a dead PR boa is found, immediately cease all work in that area and record the information accordingly (see #6). If the PR boa was accidentally? killed as part of the project actions, please include information on what conservation measures had been implemented and what actions that will be taken to avoid further killings. A dead boa report should be sent by email (see contacts below) to the Service within 48 hours of the event.
12. Projects must comply with all state laws and regulations. Please contact the PRDNER for further guidance.

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

- Marelisa Rivera, Deputy Field Supervisor
  - Email: [marelisa\\_rivera@fws.gov](mailto:marelisa_rivera@fws.gov)
  - Office phone (786) 244-0081 or mobile (305) 304-1814
- José Cruz-Burgos, Endangered Species Coordinator
  - Email: [jose\\_cruz-burgos@fws.gov](mailto:jose_cruz-burgos@fws.gov)
  - Office phone (786) 244-0081 or mobile (305) 304-1386

# **APPENDIX E**

## **Section 106 Consultation**



**GOVERNMENT OF PUERTO RICO**  
STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio-Cancela | [carubio@prshpo.pr.gov](mailto:carubio@prshpo.pr.gov)

December 13, 2023

**Lauren Bair Poche**

HORNE

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

SHPO 12-01-23-06 SECTION 106 NHPA EFFECT DETERMINATION SUBMITTAL:  
PR-RGRW-00801 – ROBERTO J. BERRIOS VÁZQUEZ DBA AGRICULTURA Y  
PRODUCCIÓN ANIMAL – RAMAL 152 KM 0.1 INTERIOR, AVE. JOSÉ ZAYAS  
GREEN, BO. HELECHAL, BARRANQUITAS, 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



December 1, 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-00801 – Roberto J. Berrios Vazquez Dba Agricultura Y Produccion Animal – Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, Barranquitas, 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 Roberto J. Berrios Vazquez Dba Agricultura Y Produccion Animal located at Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal, in the municipality of Barranquitas. The undertaking for this project includes the drilling and installation of new water well and the purchase and installation of 29 photovoltaic panels. The well will be drilled to a depth of 400 feet and installation includes the construction of an 8 ft x 8 ft concrete base. Power needed for the water pump will be provided via approximately 15 feet of new underground electric conduit that will be installed at an approximate depth of 3 ft. This water well will supply water to two existing water tanks. An approximate length of 25 ft of new PVC piping at a depth of 2 ft will be installed to connect the existing water piping from the tanks to the final location of the well. The solar panels will be installed on a 40 ft x 40 ft concrete base. The applicant plans to directly connect the solar system

to the existing main electrical panel. An estimated length of 150 ft of underground electrical conduit at a depth of 3 ft will be required to connect the main panel of the farm to the PV panels.

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](mailto:lauren.poche@horne.com) or phone at 225-405-7676 with any questions or concerns.


Kindest regards,

A handwritten signature in cursive script that reads 'Lauren Bair Poche'.

**Lauren Bair Poche, M.A.**

Architectural Historian, EHP Senior Manager

Attachments

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b>		
<b>REGROW PUERTO RICO PROGRAM</b>		
<b>Section 106 NHPA Effect Determination</b>		
<b>Subrecipient:</b> ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL		
<b>Case ID:</b> PR-RGRW-00801	<b>City:</b> Barranquitas	

<b>Project Location:</b> Ramal 152 Km 0.1 Interior Ave. Jose Zayas Green Bo. Helechal	
<b>Project Coordinates:</b> 18.177058, -66.323898	
<b>TPID (Número de Catastro):</b> 272-000-004-12	
<b>Type of Undertaking:</b>	
<input type="checkbox"/> Substantial Repair	
<input checked="" type="checkbox"/> New Construction	
<b>Construction Date (AH est.):</b> ca. 2000	<b>Property Size (acres):</b> 94.34

<b>SOI-Qualified Architect/Architectural Historian:</b> Maria F. Lopez Schmid
<b>Date Reviewed:</b> 10/16/2023
<b>SOI-Qualified Archaeologist:</b> Roberto G. Muñoz-Pando, Ph. D,
<b>Date Reviewed:</b> 10/24/2023

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 scope of work (SOW) of the project includes the drilling and installation of new water well (SOW-1) and the purchase and installation of photovoltaic panels (SOW-2). The land was and currently is used for pigs, chicken, and cattle production.

The applicant plans to drill and install a new 400-foot (ft) depth water well at coordinates 18.177344, -66.323353. The well installation (SOW-1) includes the construction of an 8 ft x 8 ft concrete base. Power needed for the water pump will be provided via an underground electric conduit that will be installed at an approximate depth of 3 ft and connected to an adjacent existing electric connection located at an estimated distance of 15 ft to the proposed well concrete pad. This water well will supply water to two existing water tanks of 10,000 gallons each. An approximate length of 25 ft of PVC piping at a depth of 2 ft will be installed to connect the existing water piping from the tanks to the final location of the well.

The SOW-2 is the purchase and installation of 29 solar panels at coordinates 18.177229, -66.323722. The solar panels will be installed on a 40 ft x 40 ft concrete base. The applicant plans to directly connect the solar system to the existing main electrical panel located at 18.177408, -66.323357. An estimated length of 150 ft of underground electrical conduit at a depth of 3 ft will be required to connect the main panel of the farm to the PV panels. The field is not graded.




<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>REGROW PUERTO RICO PROGRAM</b> <b>Section 106 NHPA Effect Determination</b>	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
<b>Subrecipient:</b> ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL	
<b>Case ID:</b> PR-RGRW-00801	<b>City:</b> Barranquitas

### 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 includes the locations of the Scopes of Work and the buried water and electrical connections. The visual APE is the viewshed of the proposed project.

### 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), found that the project area has no previously identified archaeological sites within a half mile of the center of the APE. There are two previously conducted archaeological resource surveys within a half mile radius of the APE, both of which came back with negative results for archaeological resources. The first one was conducted by Antonio Daubó Vidal in 1987. It was a Phase 1A/1B study titled: "Barranquitas Bypass Access Road PR 152," with Code numbers EAP 1309 and ICP/ CAT-BR-87-01-02. The results were negative for archaeological resources, and it was located 0.19 miles east of the APE. The other archaeological resource survey was led by Miguel Rodríguez López in 1996. It was a Phase 1A-1B study titled: "Urb. Valle San Antonio," with code numbers EAP 1317, ICP/ CAT-BR-96-02-03, and SHPO 07-28-95-02. The results were negative for archaeological resources, and it was located 0.46 miles northeast of the APE. The soil in the vicinity of the project area is Humatas clay (HtE and HtF) with 20 to 60 percent slopes. There is also a patch of standing water north of the center of the APE. Humatas clay soil is not ideal for organic materials to preserve within it. Metals and other man-made materials might be more probably found in this type of soil. However, due to the slope in the area, and the negative results of previous investigations, we find the probability of new and intact archaeological sites to be located on or near the project area low to moderate. Therefore, the project actions will probably not affect any archaeological site as we have no evidence of there being any archaeological resources near the APE.

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>RE-grow PUERTO RICO PROGRAM</b> <b>Section 106 NHPA Effect Determination</b>	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
<b>Subrecipient:</b> ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL	
<b>Case ID:</b> PR-RGRW-00801	<b>City:</b> Barranquitas

### Identification of Historic Properties - Architecture


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 the project area is **not** within the boundaries of a National Register of Historic Places (NRHP)-eligible or listed Traditional Urban Center or Historic District. Additionally, there are **no** NRHP-listed historic properties within the quarter mile buffer zone from the APE.

The proposed project is located in a rural, mountainous terrain with mature vegetation and grasslands among large agricultural buildings on the property for poultry production. The property is located west of Road PR-152R in Barranquitas that runs north south. A circa 2000 building is located to the west of geocoordinates. This building appears in a 2004 aerial image, shown below, but not a 1995 one.



**Figure 1 & 2.** Detail of the 2004 aerial image and photograph of the building on the property, view to the southwest.

The hog confinement building is made of concrete and metal frame with a corrugated metal roof for pork production. This building shown above right is modern and **does not** meet the requirements to be eligible for listing on the National Register of Historic Places.


<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>ReGROW PUERTO RICO PROGRAM</b> <b>Section 106 NHPA Effect Determination</b>	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
<b>Subrecipient:</b> ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL	
<b>Case ID:</b> PR-RGRW-00801	<b>City:</b> Barranquitas

## Determination

The following historic properties have been identified within the APE:

- Direct Effect:
  - N/A
- Indirect Effect:
  - N/A

Based on the results of our historic property identification efforts, the Program has determined that 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. 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-00801 is located. In addition, no previously identified archaeological sites are located within 0.50-miles of the proposed project area. Also, the two referenced archaeological resource surveys yielded negative results. Furthermore, the slope in the area is 20 to 60 percent. For these reasons, we find the probability of new and significant archaeological resources being found in or near the APE to be low to moderate. Therefore, no historic properties will be affected by the proposed project activities.

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>RE-grow PUERTO RICO PROGRAM</b> <b>Section 106 NHPA Effect Determination</b>	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
<b>Subrecipient:</b> ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL	
<b>Case ID:</b> PR-RGRW-00801	<b>City:</b> Barranquitas

**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**

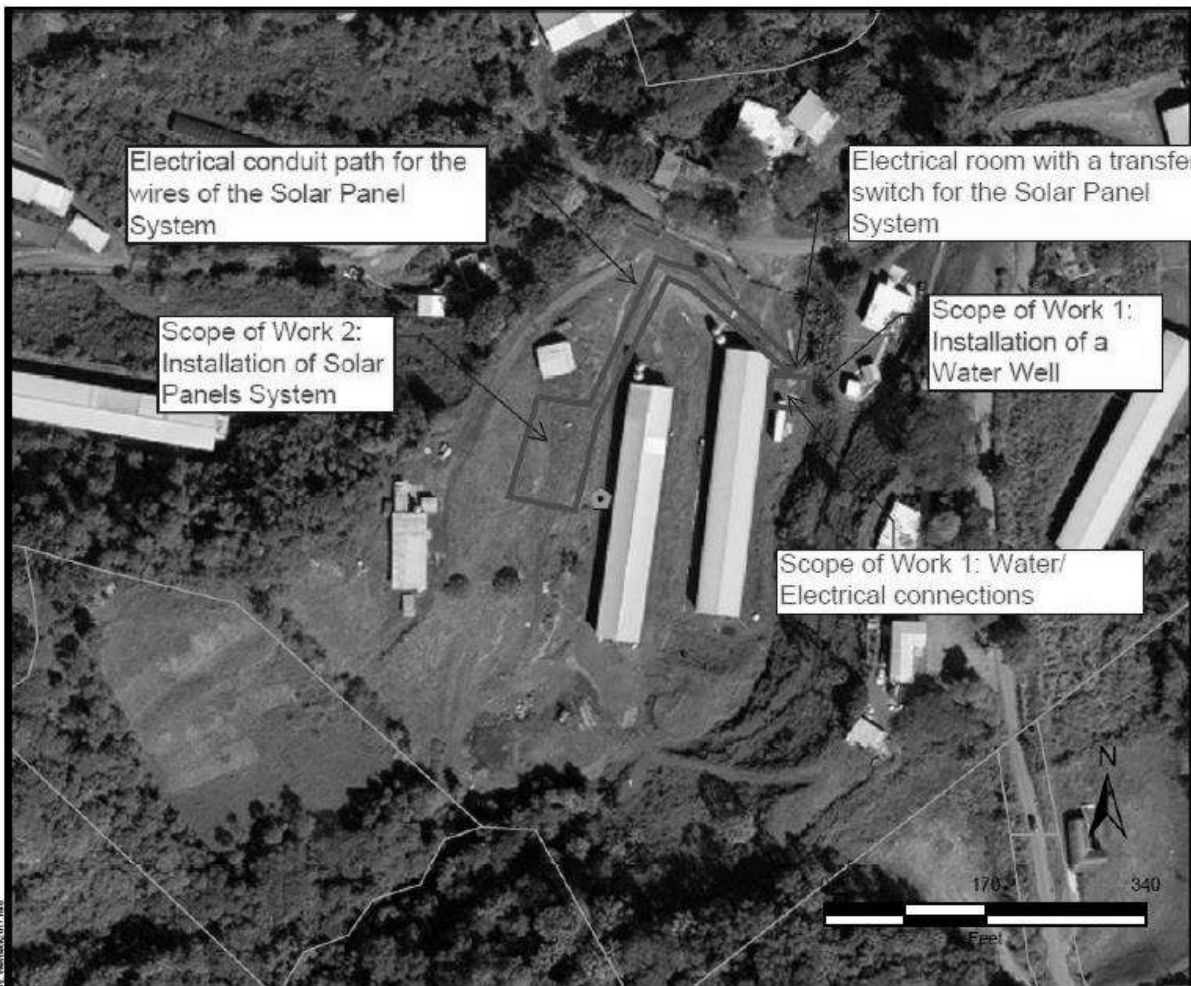
The Puerto Rico State Historic Preservation Office has reviewed the above information and:  <input type="checkbox"/> <b>Concurs</b> with the information provided. <input type="checkbox"/> <b>Does not concur</b> with the information provided.	
<b>Comments:</b>  	
Carlos Rubio-Cancela State Historic Preservation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

Subrecipient: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

Case ID: PR-RGRW-00801

City: Barranquitas

### Project (Parcel) Location – Area of Potential Effect Map (Aerial)



**TETRA TECH**

Source: CRIM

Author: TG Date: 10/7/2022

**Legend**

- Tier 2 Site
- Area of Potential Effect
- Parcelario

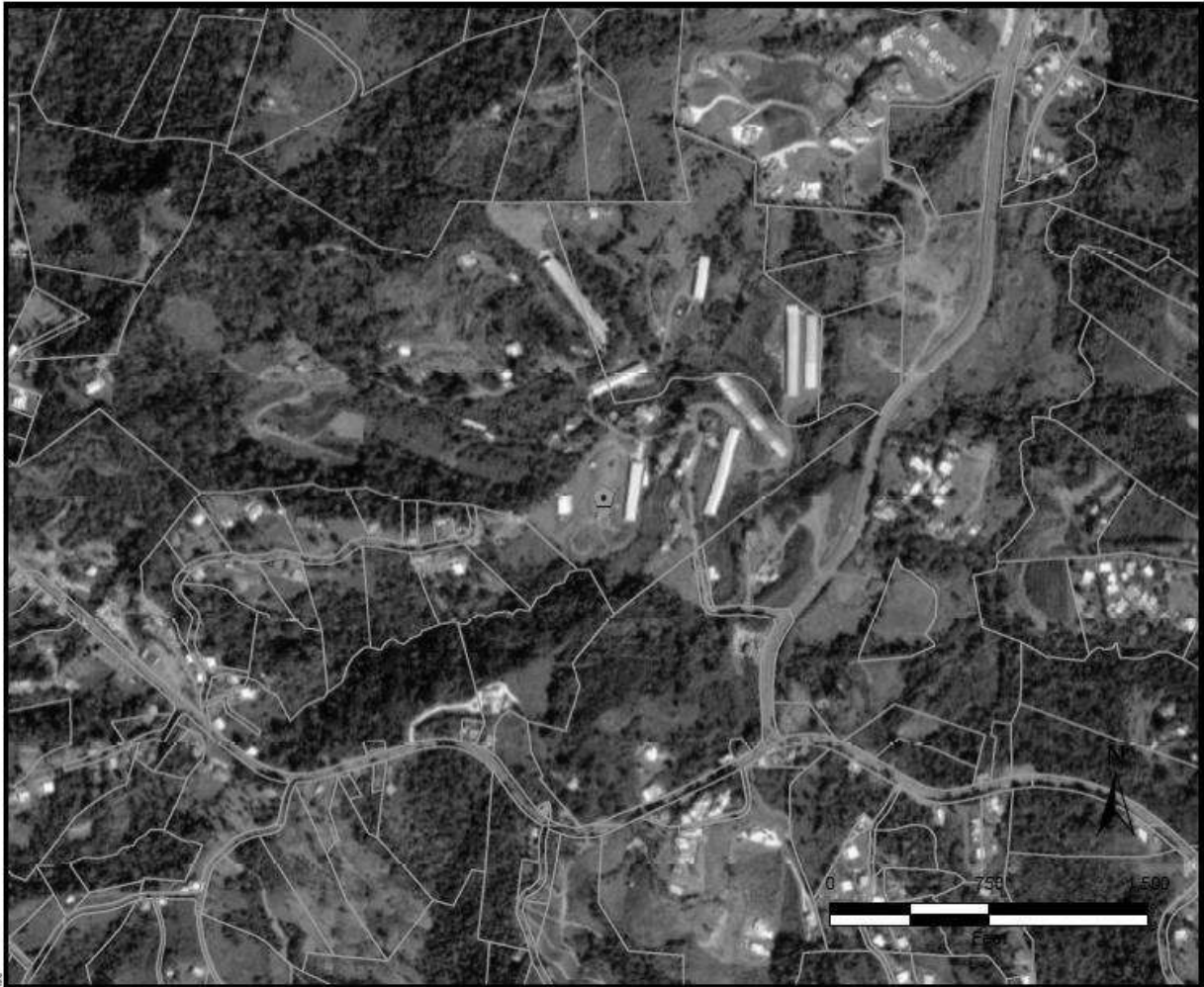


Subrecipient: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

Case ID: PR-RGRW-00801

City: Barranquitas

### Project (Parcel) Location - Aerial Map








**TETRA TECH**

Source: CRIM

Author: TG

Date: 8/23/2023

#### Legend

-  Tier 2 Site
-  Historic Comunidades
-  Traditional Urban Centers
-  Cultural Resource District Polygon
-  Parcelario

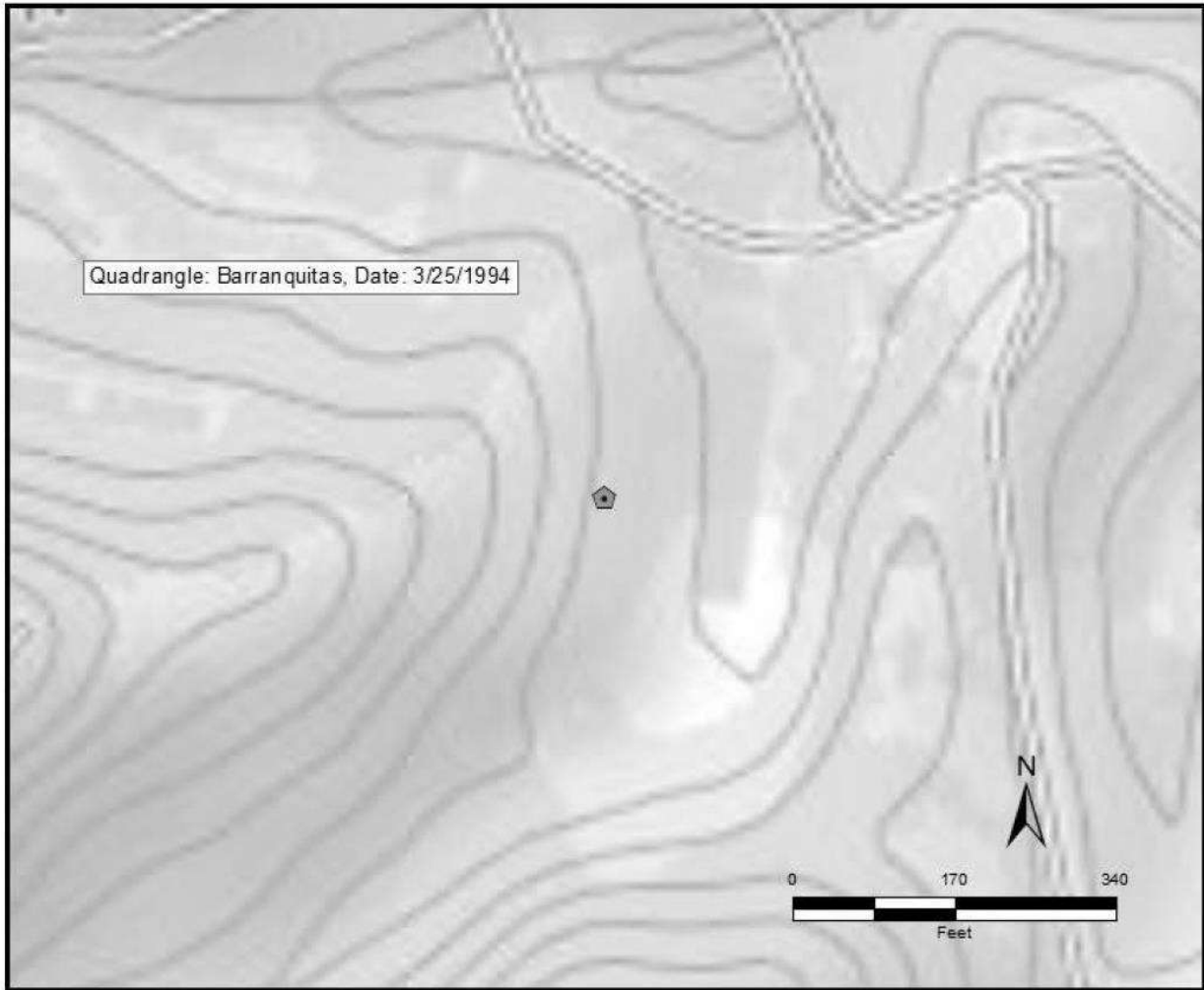


Subrecipient: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

Case ID: PR-RGRW-00801

City: Barranquitas

### Project (Parcel) Location - USGS Topographic Map







**TETRA TECH**

Source: USGS

Author: TG

Date: 9/19/2023

#### Legend

-  Tier 2 Site
-  Historic Comunidades
-  Traditional Urban Centers
-  Cultural Resource District Polygon



### Project (Parcel) Location – Soils Map



Map data: 2014/05/08 © The GeoInformation Group, Inc. All rights reserved.



**TETRA TECH**

Source: USDA

Author: TG

Date: 10/17/2023

**Legend**

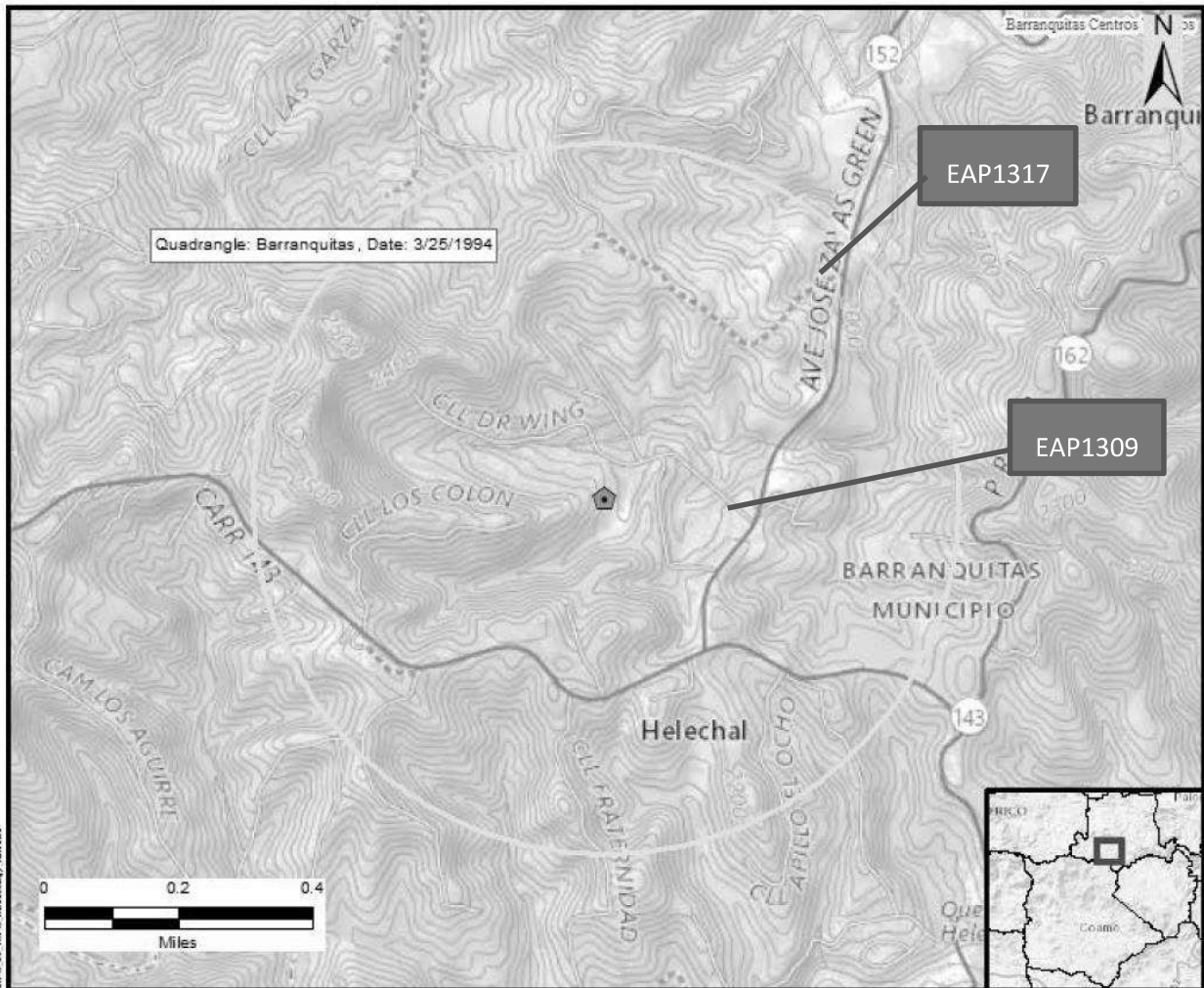
-  Tier 2 Site
-  Parcelario
- Soil Type**
-  HtE; Humatas clay, 20 to 40 percent slopes
-  HtF; Humatas clay, 40 to 60 percent slopes
-  MoF; Maricao clay, 20 to 60 percent slopes
-  W; Water







### Project (Parcel) Location with Previously Recorded Cultural Resources USGS Topographic Map



Source: National Park Service

Author: TG

Date: 7/21/2023

- Legend
- Tier 2 Site
  - Half Mile Buffer
  - Historic Comunidades
  - Traditional Urban Centers
  - Cultural Resource District Polygon

Subrecipient: ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

Case ID: PR-RGRW-00801

City: Barranquitas

### Photograph Key



**Subrecipient:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

**Case ID:** PR-RGRW-00801

**City:** Barranquitas



**Photo #:** 1

**Description (include direction):** Scope of Work 1: Installation of a Water Well, view to the Southwest

**Date:** 9/29/2023



**Photo #:** 2

**Description (include direction):** Scope of Work 1: Installation of a Water Well, view to the South

**Date:** 9/29/2023

**Subrecipient:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

**Case ID:** PR-RGRW-00801

**City:** Barranquitas



**Photo #:** 3

**Description (include direction):** Scope of Work 1: overview area of the 15 feet electrical connection from the proposed water well location, view to the Northeast.

**Date:** 9/29/2023



**Photo #:** 4

**Description (include direction):** Scope of Work 1: overview area of the 25 feet water connection from the proposed water well location, view to the Northwest.

**Date:** 9/29/2023

**Subrecipient:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

**Case ID:** PR-RGRW-00801

**City:** Barranquitas



**Photo #:** 5

**Description (include direction):** Scope of Work 2: Installation of a Solar Panels System, view to the East

**Date:** 9/29/2023



**Photo #:** 6

**Description (include direction):** Scope of Work 2: Installation of a Solar Panels System, view to the South

**Date:** 9/29/2023

**Subrecipient:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

**Case ID:** PR-RGRW-00801

**City:** Barranquitas



**Photo #:** 7

**Description (include direction):** Scope of Work 2: Installation of the electric conduit from the Solar Panel System, view to the Southwest

**Date:** 9/29/2023



**Photo #:** 8

**Description (include direction):** Scope of Work 2: Installation to the transfer switch for the Solar Power System, view to the South

**Date:** 9/29/2023

**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM**

**REGROW PUERTO RICO PROGRAM**

**Section 106 NHPA Effect Determination**



**Subrecipient:** ROBERTO J. BERRIOS VAZQUEZ DBA AGRICULTURA Y PRODUCCION ANIMAL

**Case ID:** PR-RGRW-00801

**City:** Barranquitas



**Photo #: 9**

**Description (include direction):** Scope of Work 2: Overview of the electrical room for the connection of the electrical wires from the Solar Panel System, view to the Northeast.

**Date:** 9/29/2023





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