

Environmental Assessment

Determinations and Compliance Findings for HUD-assisted Projects

24 CFR Part 58

Project Information

Project ID: PR-RGRW-04128

Project Name: Finca El Agricultor LLC

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: Gabriela Rodríguez

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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 6.37-acre site located at Carr 152 K8 H9 Int., Bo. Quebradillas in the Municipality of Barranquitas, Puerto Rico (Parcel ID# 221-036-167-25-000). The coordinates of the project site are 18.239860, -66.280315.

This land has been used for agricultural purposes as a chicken farm and is currently being used for minor fruits and plantains production.

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

The Intent Use of Grant Funds for this project includes the purchase and installation of a 1,000 gallon water cistern, fencing materials for vertical planting, an irrigation system, and a Dosatron Injector (Plant Germination/Fertilization Equipment). The purchase of the mini excavator has been submitted and approved as an exempt activity under 24 CFR 58.35 (b)(4). The potential impacts associated to the purchase and installation of the fencing materials to be used as a vertical squash plantation with an irrigation system, and the

purchase and installation of a Dosatron Injector and a water cistern are included in the analyses below.

The Scope of work 1 (SOW-1) is the installation of a vertical squash plantation and irrigation system in an area of the farm centered at coordinates 18.239860, -66.280315. The vertical plantation system is planned to be constructed using the requested fencing materials including 150 metal posts. The posts will be 10 feet in length and will be installed at an approximate depth of 3 feet and connected by cables and wire to provide support for vertical planting. According to the "Proyecto de Chayote" Plan presented by the applicant, the structure will be made of 12- and 18-gauge wire (barbed) with metal posts spaced 10 feet by 10 feet apart with an approximate final height of 7 feet. The support for the plant will be made of soft wire and will create 16-inch by 16-inch squares. Around the crop, sheep wire will be used with metal posts spaced 8 feet apart as a protective measure for the crop. According to the weekly management plan, after the germination and sprouting stage, the squash vines plants are transplanted directly on the soil around the posts. The irrigation system to be installed at the squash plantation area consists of UV polyethylene and vinyl above-ground tubing. Refer to "Proyecto de Chayote" document in **Appendix C**.

The water for the irrigation of the squash plantation will come by gravity from the 1,000-gallon water cistern and the Dosatron system to provide water with fertilizer to each of the plants. The Scope of work 2 (SOW-2) is the installation of the water cistern and the Dosatron injector system on an existing concrete pad of approximately 10 feet x 6 feet located at coordinates 18.239929, -66.279998. The Dosatron injector acts as a drip irrigation system that controls water as plant needed. The difference in natural terrain elevations between the cistern location and the squash plantation area, allows the use of water by gravity for irrigation purposes. The proposed location for the cistern is an area used for the storage of water, with the presence of two (2) 400 gallon and one (1) 200 gallon water tanks. Since this area is used for storage and water supply purposes, the area has water connection and the concrete pad needed for the installation of the aboveground proposed tank. Water existing connections are aboveground. The existing faucet located next to the concrete pad will be used to provide water to the cistern.

The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a "Non-PRASA" community and the water service is provided via a communal aqueduct that serves the residents of the area. The NON-PRASA communities maintain and operate their own communal aqueduct. These communities are in their majority Non-Profit corporations with a resident or a group or residents in charge of the maintenance, operation, and management of the aqueduct. Since these communities are under the State as organizations and they are not subscribers of the PRASA system, no State permits are required for the installation of new connections. The project is located in the Bo. Quebradillas of Barranquitas, this

community has an established communal aqueduct incorporated under the Department of State as a NON-Profit corporation as “Acueducto Comunal del Barrio Quebradillas de Barranquitas, Inc.” under the register number 6926. Also, the aqueduct is registered in the Department of Health as a Public Water System with Identification Number (PWS ID) PR0510095. According to the Directors Board letter dated June 26, 2024, the operations of the Finca el Agricultor LLC are served by the communal system. See **Appendix C**.

The Area of Potential Effect APE for the proposed project is approximately 0.75 acres.

The project site will require clearing and vegetation removal. However, proposal does not contemplate cutting, pruning or transplanting of trees.

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 purchase and installation of a water cistern, fencing materials for vertical planting, an irrigation system, and a Dosatron Injector 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 installation of a water cistern, fencing materials for vertical planting, an irrigation system, and a Dosatron Injector is used for agricultural purposes. Therefore, there is no change in land use associated with the project. 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

Grant Number	HUD Program	Funding Amount
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: \$24,493.55

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$24,493.55

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.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The nearest civil airport, “Fernando Luis Ribas Dominicci”, is approximately 99,396 feet from the proposed site. The nearest military airport, “Aeropuerto Internacional Luis Muñoz Marín”, is approximately 116,453 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 Appendix B.
<p>Coastal Barrier Resources</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 central region of Puerto Rico. The distance to the nearest CBRS unit is 86,773 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 Appendix B.</p>
<p>Flood Insurance</p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Project site is located in Zone X, area of minimal flood hazard, as per Flood Insurance Rate Map (FIRM) 72000C1160H, effective date April 19, 2005. This project is in compliance with Floodplain Insurance requirements. (See Figures 4 and 5 in Appendix B.)</p>

STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.5		
<p>Clean Air</p> <p>Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Project site is not located in a county or air quality management district that is 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". The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. Project would have no impact on air quality. The project is in compliance with Clean Air Act. Refer to EPA listing in Appendix C.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project is located 72,049 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 is in compliance with the Coastal Zone Management Act. See Figure 7 in Appendix B.</p>
<p>Contamination and Toxic Substances</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>A site visit was conducted on December 13, 2023, no debris or rubbish or visible signs vegetative stress, contamination, or toxic substances were identified at the project site. The project consists</p>

24 CFR Part 58.5(i)(2)

of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector.

Site contamination was evaluated through online data searches to determine if toxic sites are located within 3,000-feet of the proposed project.

The PRASA Cedro Arriba Water Treatment Plant Barranquitas Filtration Plant, 2,617 feet northeast of the project site, is a Water Discharger (NPDES) listed site. As a CWA site it is considered active with violations over the first two quarters periods of year 2021 listed as "Reportable Noncompliance." The most recent violation identified, in the 1st quarter of year 2024, is a limit violation for Biochemical oxygen demand (BOD₅). Campo Caribe is a second CWA site identified 2,853 ft east of project site. No ECHO report was available for the Campo Caribe facility.

BOD₅ is used as a parameter to measure the concentration of organic matter present based on the consumption of oxygen by aerobic bacteria while they degrade the organic matter. Once water is discharge to the river the concentrations of parameters tend to change during the stream course due to dilution and aeration, among other stream water conditions or characteristics. Is important to mention that the proposed project is a NON-PRASA community. These aqueducts use groundwater as water source, not surface water or river as water source. Additionally, due to the distance and the hydrologic gradient of the location of the WTP, the identified violation should have no impact on the project site. See available ECHO report in **Appendix C**.

Refer to Figures 8 and 9 in **Appendix B** and the Site inspection report and photos in **Appendix A**. The project is in compliance with Contamination and Toxic Substances.

<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The proposed location of project is an area that has been used for agricultural purposes.</p> <p>According to EPA NEPAassist Enviromapper, the nearest critical or proposed critical habitat is 64,855 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 Appendix D).</p> <p>The project is “May affect, but not likely to adversely affect” (NLAA) the Puerto Rican Boa, provided conservation measures are implemented as part of the project.</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 Appendix B and the Endangered Species Package in Appendix D. This project is in compliance with the Endangered Species Act.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>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>Farmlands Protection</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>Refer to site visit report in Appendix A.</p> <p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The project site is designated as farmland of statewide. 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 Appendix B.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, as amended by Executive Order 13690, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project is not located in a Federal Flood Risk Management Standard (FFRMS) floodplain. FFRMS was determined using the 0.2-Percent-Annual-Chance (PAC) (500- Year) Flood Approach.</p> <p>The Project site is not located in an Advisory Base Flood Elevation (ABFE) special flood hazard area as per ABFE Map 72000C1160H, effective date April 13, 2018. Since the project site does not lie within the 1 percent (100-year), nor within the 0.2 PAC floodplain on the ABFE, it is not within the FFRMS.</p> <p>PFIRMs in Puerto Rico were only developed for certain sections of the municipalities of Carolina, Canovanas, Loiza, San Juan and Trujillo Alto. The proposed project is located in the municipality of Barranquitas; therefore, PFIRM information was not available for the area and therefore not considered in the review.</p> <p>This project is in compliance with Executive Order 11988 and Order 13690. See Figure 6 in Appendix B.</p>

<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The site was evaluated on January 15, 2024, by an SOI Qualified Architect/Architectural Historian. Additionally, the site was evaluated on January 31, 2024, by an SOI Qualified Archaeologist. SHPO concurred with a finding of No Historic Properties Affected within the project's Area of Potential on Effects on March 4, 2024.</p> <p>Refer to Figure 13 in Appendix B and the Section 106 Consultation Package in Appendix E. This project is in compliance with Historic Preservation requirements.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. HUD's noise regulations protect residential properties from excessive noise exposure. 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>Sole Source Aquifers</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 nearest Sole Source Aquifer is 5,412,815 feet to the northwest of the project site. The project is in compliance with Sole Source Aquifer requirements.</p> <p>Refer to Figure 17 in Appendix B.</p>
<p>Wetlands Protection</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 project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector.</p> <p>The closest fresh-water bodies include an unnamed creek adjoining the northwest parcel boundary, at an estimated minimum distance of 83 ft of the limit of the plantation area. Additional water bodies in the area include an unnamed creek 1,526 ft southwest of project area, and the Río Frío 1,825 ft northeast of the proposed cistern location. The unnamed creek that adjoins the northwest boundary of parcel is identified as a riverine wetland in the NWI map.</p>

		<p>The APE of the vertical planting has been modified to maintain a natural buffer zone. Installation and operational proposed activities of the vertical squash plantation are at an approximate distance of 83 ft. The proposed irrigation system includes the installation of a Dosatron Injector, which is a drip irrigation type system. These systems save water and nutrients by supplying them in a controlled manner, therefore minimizing the possible erosion and transportation of soil, nutrients or excess runoff due to irrigation. Regulation requires an undisturbed natural buffer equal or greater than 50 ft (15 meters) to be maintained, at all times. No construction or operational activities will be conducted within the buffer zone area or the riverine area. APE will be clearly delimited, leaving at least 50 ft (15 meters) of undisturbed buffer zone, prior to the initiation of the construction activities. Undisturbed natural buffer zones serve as a control measure to protect waters from erosion, transportation, and sedimentation of particulate matter. By leaving the natural buffer zone undisturbed, the installation of the vertical squash plantation and irrigation system would not impact the wetlands and includes no activities that would require further evaluation under this section. The locations of the proposed water cistern is located at distances greater than 280 feet away from the identified wetland. Operation should have no impact on wetlands.</p> <p>The project is in compliance with Executive Order 11990. Refer to Figure 14 in Appendix B. Refer to Appendix D for the Site-Specific Wetland Review.</p>
<p>Wild and Scenic Rivers</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 169,867 feet. The project is in compliance with the Wild and Scenic Rivers Act. Refer to Figure 15 in Appendix B.</p>

ENVIRONMENTAL JUSTICE

Environmental Justice Executive Order 12898	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	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.
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Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features, and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable, and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

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

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

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The proposed project is located on a private farm. 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 and will not contribute to urban sprawl.
Soil Suitability/ Slope/ Erosion/	2	The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and

Drainage/ Storm Water Runoff		<p>a Dosatron Injector. The proposed project is located in a rolling terrain, previously used for agricultural purposes, and now used for minor fruits and plantains production.</p> <p>Soils in the proposed project area are classified as Humatas clay (Hte), 20 to 40 percent slopes, surrounded by farmland with young vegetation cover, 575 meters above mean sea level.</p> <p>Projects larger than 1 acre must comply with the CWA and develop a SWPPP with the NPDES. The proposed project area is approximately 0.75 acres.</p> <p>The project site will require clearing and vegetation removal. However, proposal does not contemplate cutting, pruning or transplanting of trees.</p> <p>The project site area is rated “low to high” for landslide susceptibility (see Figure 16 in Appendix B). 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.</p> <p>There will be little to no additional runoff associated with the project.</p>
Hazards and Nuisances including Site Safety and Noise	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. During implementation of the project, 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. There is no access to the project area by the public.</p>
Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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</p>

		<p>component, it may aid in restoring some employment opportunities and increase income.</p> <p>The proposed project would not negatively impact employment or income patterns.</p>
Demographic Character Changes, Displacement	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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.</p>
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>95% are low income compared to PR average of 70%</p> <p>19% are unemployed compared to PR average of 15%</p> <p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. This project will result in restoration and increase in income and potential employment opportunities in the local area. The impacts would be beneficial.</p> <p>See EJSscreen Report in Appendix C</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The project would not result in any change to regional or local area educational and cultural facilities or increase demand for them.</p>
Commercial Facilities	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The agricultural activity of the project property will improve. Other commercial facilities would not be impacted by the proposed project.</p>

Health Care and Social Services	2	The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector.</p> <p>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, others) 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.</p>
Wastewater / Sanitary Sewers	2	The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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 purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. According to the Directors Board letter dated June 26, 2024, the operations of the Finca el Agricultor LLC are served by the communal system (See Appendix C). Operational area of the farm has water supply from the communal aqueduct with auxiliary water storage tanks for storage of water. The proposed location for the 1,000 gallon cistern is an area used for the storage of water, with the presence of two (2) 400 gallon and one (1) 200 gallon water tanks. Since this area is used for storage and water supply purposes the area has water connection and the concrete pad needed for the installation of the proposed tank. Water existing connections are aboveground. The existing

		faucet located next to the concrete pad will be used to provide water to the cistern. Due to the inclusion of an additional storage volume of 1,000 gallon and a Dosatron Injector the proposed project will represent a minor increase in the current water demand of operations. The proposed project will have a minor impact on water usage.
Public Safety – Police, Fire and Emergency Medical	2	The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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 purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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 purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The proposed project will be situated on land previously used for agricultural purposes.</p> <p>The APE of the vertical planting has been extended to the northwest boundary of parcel which adjoin the identified unnamed creek. However, installation and operational proposed activities of the vertical squash plantation are at an approximate distance of 110 ft. Natural vegetation buffer zone of equal or greater than 50 ft (15 meters) will be maintained, at all times. No cortex removal, ground disturbances, earth movement, or constructions activities are contemplated nearby a unique natural features or water resources.</p>

Vegetation, Wildlife	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector.</p> <p>The proposed project will occur on land previously used for agricultural purposes and will continue in that capacity.</p> <p>All vegetative exceedance material resultant from the clearing activities will be disposed as per the Municipal vegetative material management and diversion plan. No vegetative material will be stored or left at site. Proposal does not contemplate cutting, pruning or transplanting of trees. The proposed project will have minimal impact on vegetation and no impact on wildlife.</p>
----------------------	---	--

Environmental Assessment Factor	Impact Code	Impact Evaluation
CLIMATE AND ENERGY		
Climate Change Impacts	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. 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. Proposal includes a storage tank for a 1,000 gallon storage capacity and a dosatron injector to prevent excess water or water loss. Water will be used on an "as needed" basis to minimize the possible impact of drought. The possible increase in water demand (if any) complies with the supply demand. The Directors Board of the Communal Aqueduct are aware and in agreement with the operations of the Farm and the proposed activities (See Appendix C). The Department of Health is responsible for verifying the system meets the Safe Drinking Water Act Regulations and PRDNER is responsible for the permits required for the extraction of the Communal System. No additional permits are required for proposed activities. This is a small agricultural project with no measurable impact on climate change factors.</p>
Energy Efficiency/Energy Consumption	2	<p>The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The proposed project is an agricultural project that does not involve electrical connections or energy use. There would be no change in energy demand in the area.</p>

Additional Studies Performed: None required.

Field Inspection (Date and completed by):

Site inspection was conducted on December 13, 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

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

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

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

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

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

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

US Fish and Wildlife Service, Environmental Conservation Online System:
<https://ecos.fws.gov/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 (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

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 project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. The project would allow a more efficient processing and growing of the agricultural products. The SOW does not involve any connection to electric utilities. Therefore, power use would not increase. Farm has water supply from the communal aqueduct with auxiliary water storage tanks for storage of water. Since this area is used for storage and water supply purposes the area has water connection and the concrete pad needed for the installation of the proposed tank. The existing faucet located next to the concrete pad will be used to provide water to the cistern. The proposed irrigation system is a drip irrigation type system. These systems save water and nutrients by supplying them in a controlled manner. The proposed project will represent a minor increase the current water demand of operations. The proposed project will have minor impact on water usage.

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. 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. Any alternative that would involve an off-property location might require the purchase of land, the need for storage area, the movement of products, equipment, infrastructure, water and power utility connections, among others, representing an additional cost. An off-property alternative 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)]:

The project consists of the purchase and installation of a water cistern, a vertical squash plantation and irrigation system, and a Dosatron Injector. Under the No Action Alternative, the applicant would not receive federal funding for the proposed action, 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.

The environmental review topics addressed in this environmental review include all formal compliance steps with federal agencies and mitigations (listed in table below) needed for compliance with 24 CFR 58.

Any permits or approvals that have been issued during the preparation of this environmental review have been included in the evaluation of impacts and mitigations. Any special permit conditions or requirements associated with these permits are listed in the Mitigation Measures and Conditions table below.

Law, Authority, or Factor	Mitigation Measure
Wetlands Protection	An undisturbed natural buffer equal or greater than 50 feet will be kept at all times during ground disturbance activities and operational activities. APE will be clearly delimited prior to the initiation of the construction activities.
Endangered Species	Implement Puerto Rican Boa conservation measures prior to and during construction to avoid or minimize impacts to this species. If a Puerto Rican Boa is found in the project activity site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the Construction Manager shall contact the Puerto Rico Department of Natural and Environmental Resources and ask for them to relocate the Boa. PRDNER phone #s: ((787) 724-5700, (787) 230-5550, (787) 771-1124. Conservation measures can be found at Caribbean ES Puerto Rican Boa (fws.gov)
Permits or Agency Approvals Required	
Permit or Approval	Permit Conditions
Ground disturbance	Projects whose earthworks are more than 40 m ³ 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.

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]

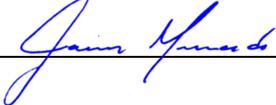
The project may significantly affect the quality of the human environment.

Preparer Signature: _____



Date: 9/9/2024

Name/Title/Organization: Gabriela Rodríguez, Senior Environmental Scientist, Tetra Tech Inc.

Certifying Officer Signature:  Date: 9/11/2024

Name/Title: Javier Mercado Barrera / Permits and Environmental Compliance Specialist / PRDOH

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-04128		
Applicant Name	Finca El Agricultor LLC		
Property Address	Bo. Quebradillas CARR 152 K8 H9 Int.		
Parcel ID	221-036-167-25		
Coordinates	18.239860, -66.280315		
Inspector Name	Carlos O. Medina		
Inspection Date	12/13/2023		
Building Type	vacant		
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 structure in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
B. Is structure a greenhouse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
C. Is Electricity connected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Power connected
D. Is water connected? (Utilities or Well)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water service connected from the community
1. Are there signs of poor housekeeping 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 55-gallon drums visible on site? If yes, are they leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 x 55 gallons drum with water
3. Are there any (or signs of any) underground storage tanks on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Are there signs of ASTs on the parcel or adjacent parcel? If yes, list approximate size and contents, if known.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	400 gallons 200 gallons 400 gallons Water cistern
5. Is there any stained soil or pavement on the parcel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Is a water drainage system in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Is a warehouse in use for storage of Fertilizer or Pesticides ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Storage
8. Are there any groundwater monitoring wells on the site or adjacent parcel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Is there evidence of a faulty septic system ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Is there distressed vegetation on the parcel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Additional Notes:

Case: PR-RGRW-04128
Project Name: Finca El Agricultor LLC
Coordinates: 18.239860, -66.280315

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

Scope of Work:

The proposed project includes the purchase of a water cistern, fencing materials, mini excavador, irrigation system and Dosatron Injector (Plant Germination/Fertilization Equipment).

Land current in use for: crops of minor fruits and plantains.

Past Land use was: chicken farm 40 years ago

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: Vertical Squash Plantation and irrigation system.

Fencing materials consist of metal post and wood post of approximately 10 feet long, a 3 feet underground of ground disturbances will be required for stabilization of the posts. These posts in conjunction with barber wires will be use for the construction of the vertical Squash plantation system.

A irrigation system will be installed in the same APE of the Squash Plantation System, overground. The water will come by gravity from the Water Cistern and the Dosatron system described in the Scope of Work 2. This irrigation system will provide water with nutrients to each of the plants thru a galvanize tubes of 2".

The mini excavator will be use for digging the holes and clearing vegetation for the construction of the squash plantation system in the same APE identified in this scope of work 1.

Coordinates for the Scope of Work 1: 18.239860, -66.280315

Scope of work 2: Installation of a 1,000 gallons water cistern and a dosatron nutrient water driven injector to provide water with fertilizer to the squash plants. Those implements will be installed over an existing concrete pad of approximately 10 feet x 6 feet located in the coordinates: 18.239929, -66.279998.

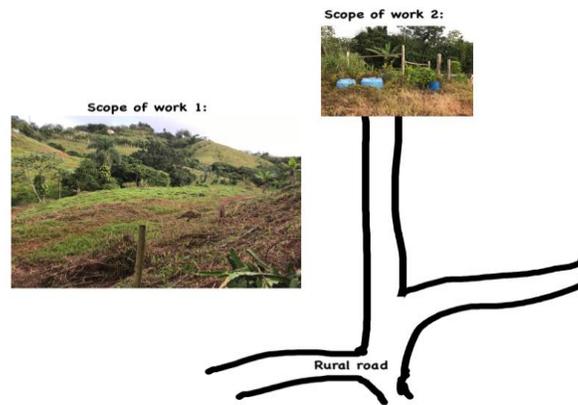
Any new water connection or power connection?

No power connections is required. Water services of the farm is front a community aqueduct system.

If the scope of work included tools, machinery or farms products, Where the applicant will be storing them?

The mini excavator will be storage in the same location of the water cistern, 18.239929, -66.279998. Applicant plans in the future to construct a metal roof and walls storage.

Site Sketch



Front of Structure

Photo Direction: East



Facing Away From Front

Photo Direction: West



Side #1 of Structure

Photo Direction: Southwest



Facing Away From Side #1

Photo Direction: Northeast



Back of Structure

Photo Direction: South



Facing Away From Back

Photo Direction: North



Side #2 of Structure

Photo Direction: East



Facing Away From Side #2

Photo Direction: West



Streetscape #1

Photo Direction: West



Streetscape #2

Photo Direction: East



Address

Photo Direction: East



Outbuildings

Photo Description: Storage

Photo Direction: West



Structural Details

Photo Description: Architectural details

Photo Direction: South



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: South



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: North



Structural Details

Photo Description: Architectural details

Photo Direction: Southwest



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: West



Structural Details

Photo Description: Architectural details

Photo Direction: Northeast



Structural Details

Photo Description: Architectural details

Photo Direction: West



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: South



Structural Details

Photo Description: Architectural details

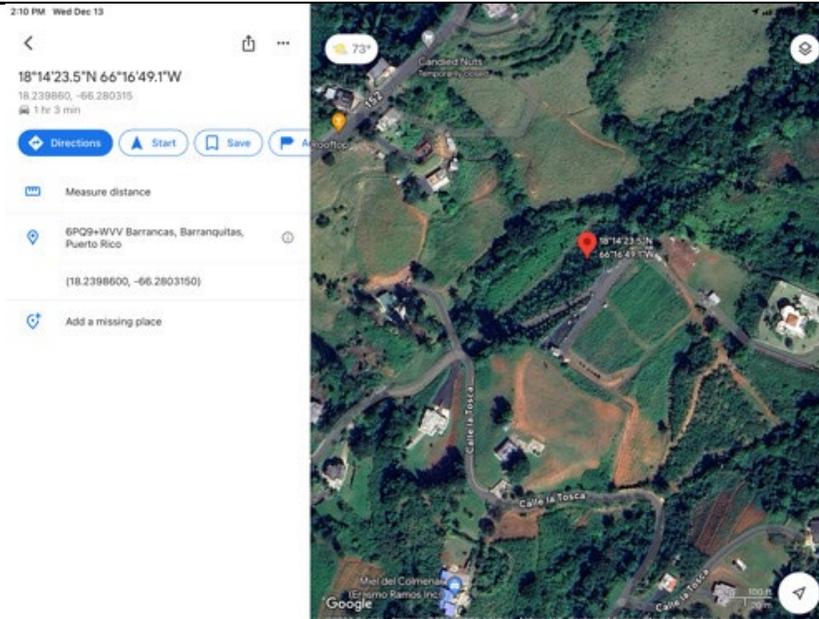
Photo Direction: Southwest



Structural Details

Photo Description: Architectural details

Photo Direction: North



Electricity Connected

Photo Description: Power connection

Photo Direction: East



Water Connected

Photo Description: Water service connected

Photo Direction: Northeast



55-Gallon Drums

Photo Description: 55 gallons drum

Photo Direction: Northeast



Aboveground Storage Tanks

Photo Description: Water cistern

Photo Direction: North



Aboveground Storage Tanks

Photo Description: Water cistern

Photo Direction: North



Warehouse Use

Photo Description: Storage

Photo Direction: West



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: West



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: West



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: Northwest



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: East



Scope Of Work

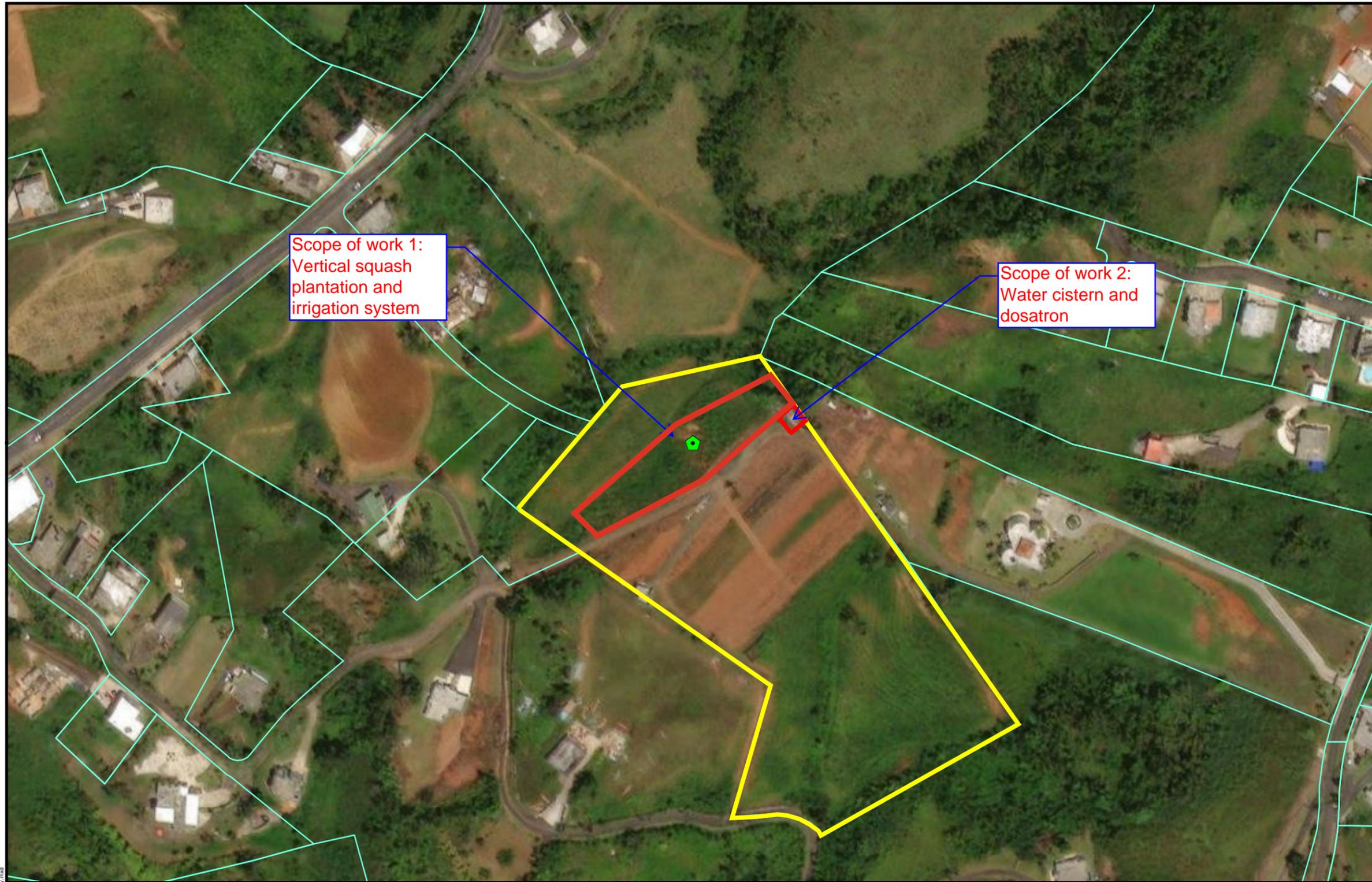
Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: Northeast



APPENDIX B

Maps



- Legend**
- ◆ Project Parcel
 - Parcels
 - Area of Potential Effect
 - Project Parcel Boundaries

Scope of work 1:
Vertical squash
plantation and
irrigation system

Scope of work 2:
Water cistern and
dosatron

PUERTO RICO



Figure 1: PROJECT LOCATION

APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

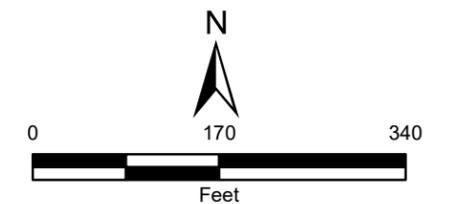
Name of Development: Finca El Agricultor LLC

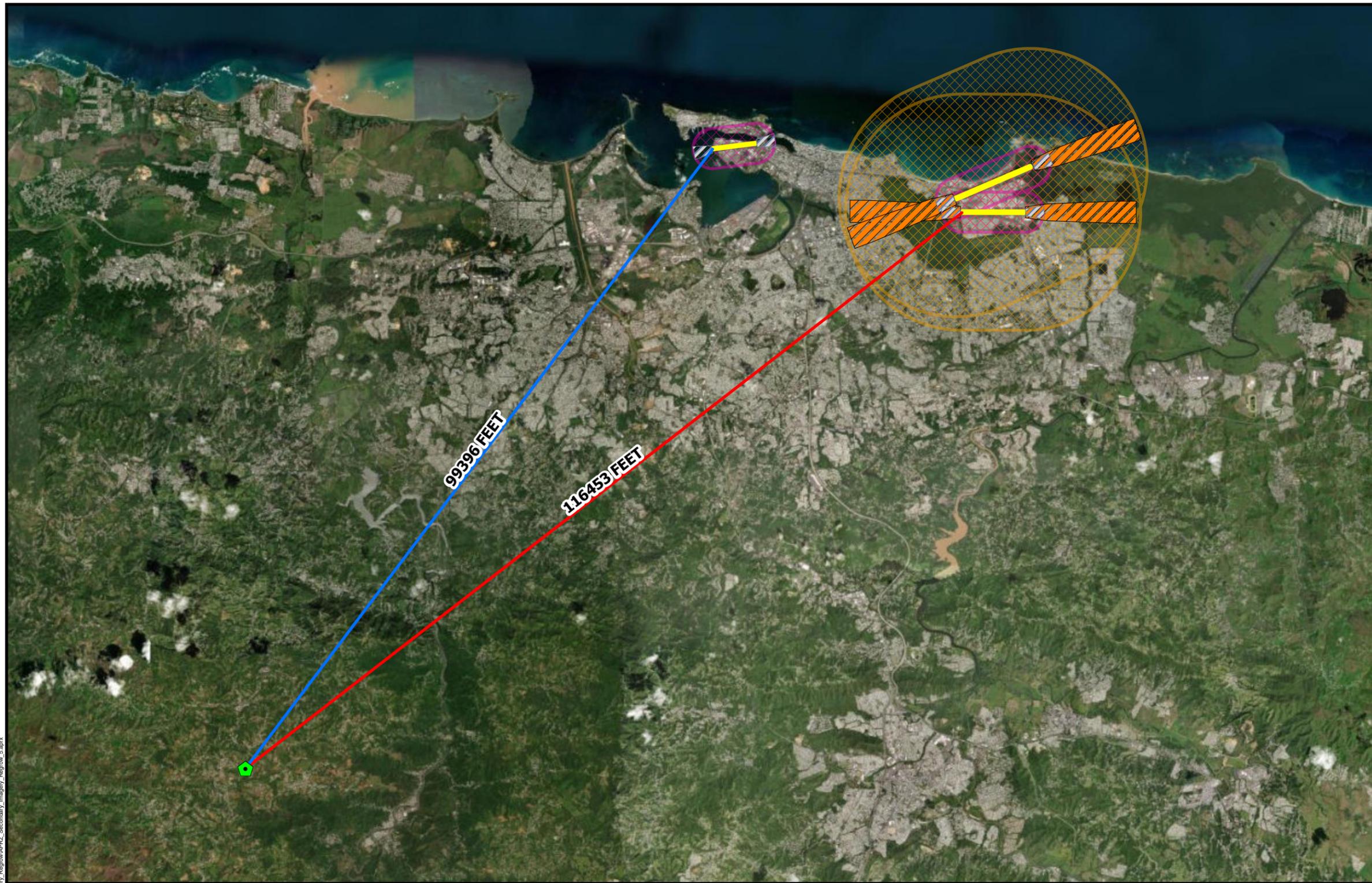
Parcel Coordinates: 18.239860, -66.280315



Source: CRIM
<https://catastro.crimpr.net/cdprpc/>

Author: TG Date: 2/29/2024





Legend

-  Project Parcel
-  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: 99,396**

**Distance to Nearest Civilian Airport
in Feet: 99,396**

**Distance to Nearest Military Airport
in Feet: 116,453**

PUERTO RICO



**Figure 2: AIRPORT ZONES
APPLICANT ID: PR-RGRW-04128**

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

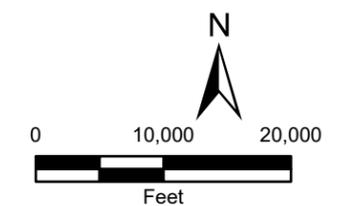
Name of Development: Finca El Agricultor LLC

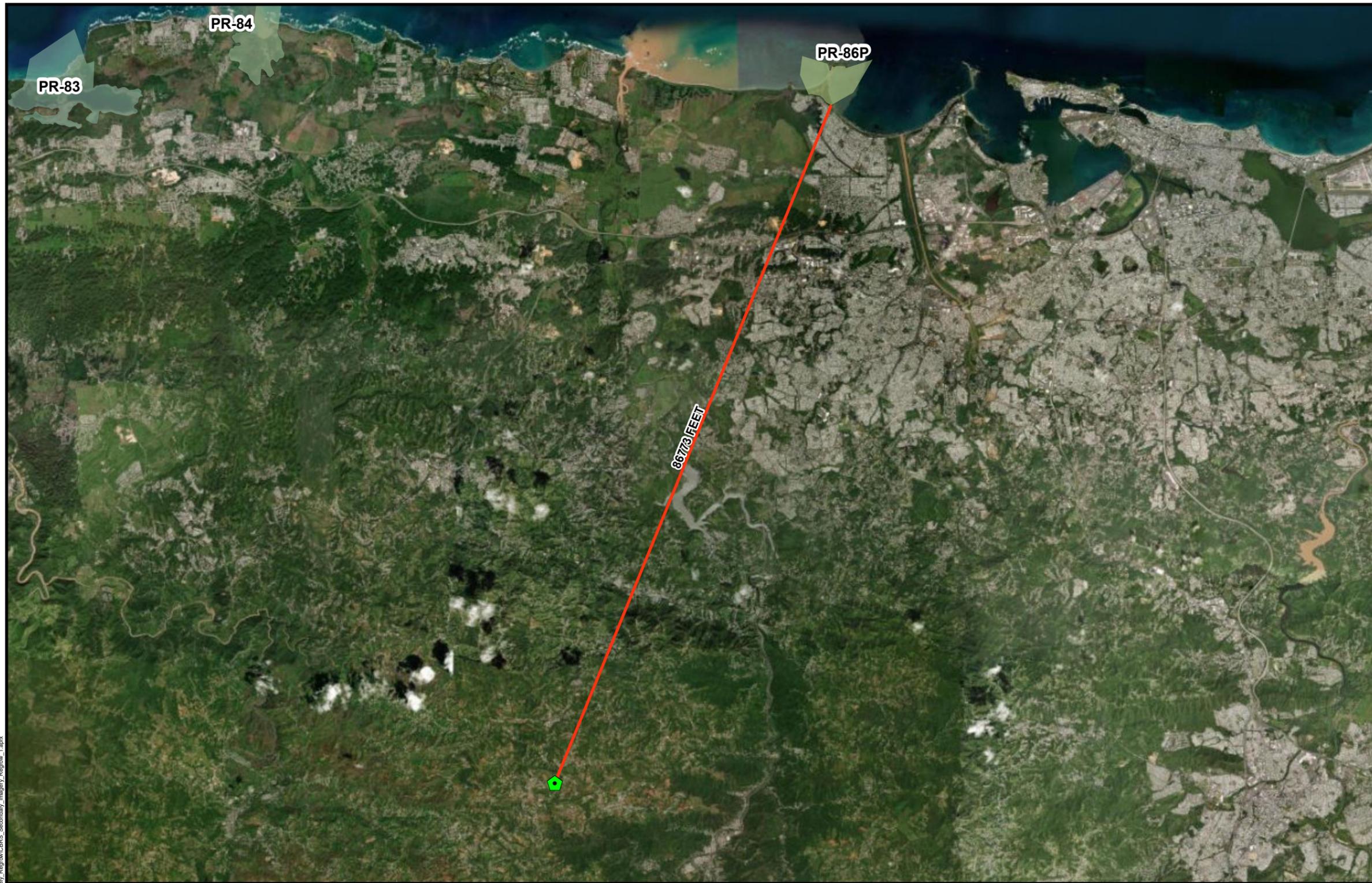
Parcel Coordinates: 18.239860 , -66.280315



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

Author: TG Date: 2/14/2024





Legend

Project Parcel

Coastal Barrier Resources System Boundary

Unit

PR-83

PR-84

PR-86P

Distance to Nearest Coastal Barrier Resources System:
86773 Feet

PUERTO RICO



86773 FEET



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

Author: TG

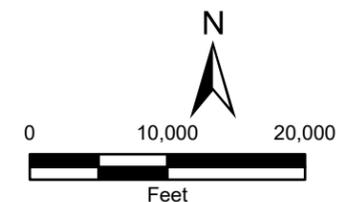
Date: 10/17/2023

Figure 3: COASTAL BARRIERS IMPROVEMENT ACT
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315



File Path: Z:\data\USFWS\Regrow\CBRS_Secondary_Imagery_Regrow\CBRS_Secondary_Imagery_Regrow_1.aprx



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

PUERTO RICO



**Figure 4: FLOOD INSURANCE RATE MAP
 APPLICANT ID: PR-RGRW-04128**

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

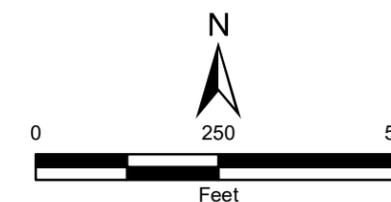
Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315



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

Author: TG Date: 2/29/2024





Legend

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

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, V, AE, AH
- With BFE or Depth Zone AE, AD, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

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

OTHER AREAS

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

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

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

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

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

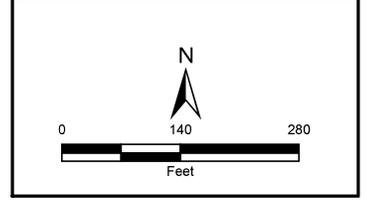


FIGURE 5: NATIONAL FLOOD HAZARD LAYER FIRMETTE
APPLICANT ID: PR-RGRW-04128

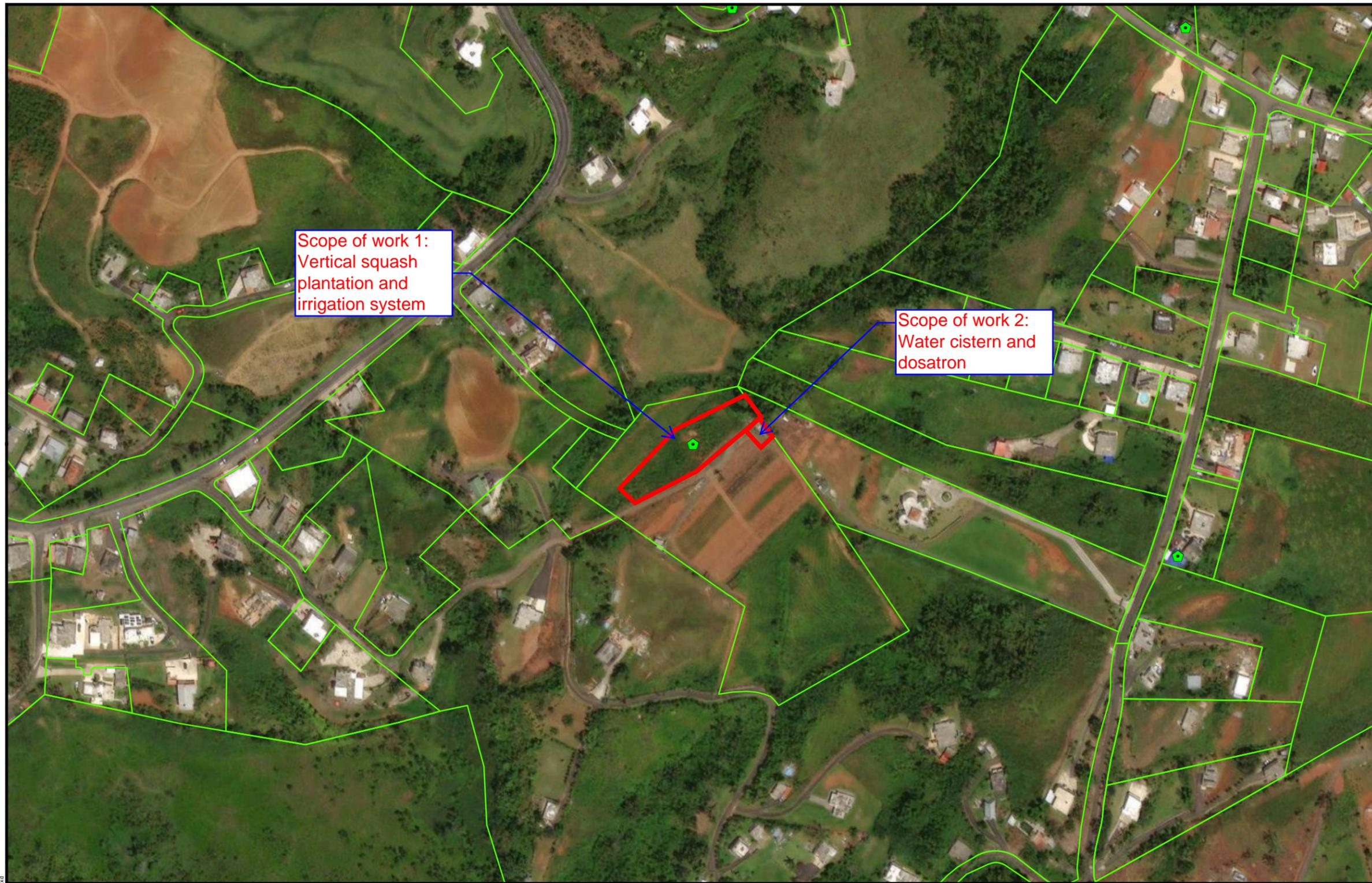
ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
Name of Development: Finca El Agricultor LLC
Parcel Coordinates: 18.239860, -66.280315



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

Author: TG Date: 5/31/2023

File Path: \\ms01\GIS\Projects\2023\230531_FIRM\230531_FIRM.mxd



- Legend**
- Project Parcel
 - Parcels
 - ABFE Flood Zone
 - A
 - AE
 - AO
 - VE
 - X
 - Area of Potential Effect

PUERTO RICO



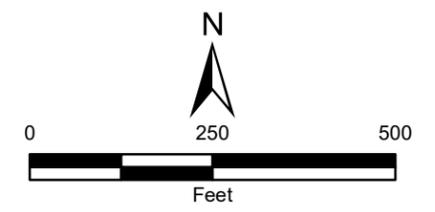
Figure 6: ADVISORY BASE FLOOD ELEVATION (ABFE) MAP
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315



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

Author: TG Date: 2/29/2024



File Path: Z:\data\USPRT\Tier2\ABFE_Secundary_Imagery_Register.mxd



Legend

-  Project Parcel
-  Coastal Zone Management Boundary

Distance to Nearest Coastal Zone:
72049 Feet

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**Figure 7: COASTAL ZONE MANAGEMENT
APPLICANT ID: PR-RGRW-04128**

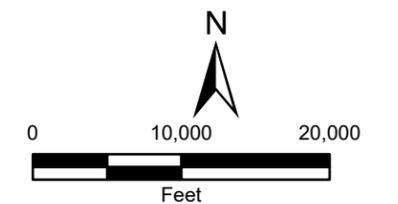
ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

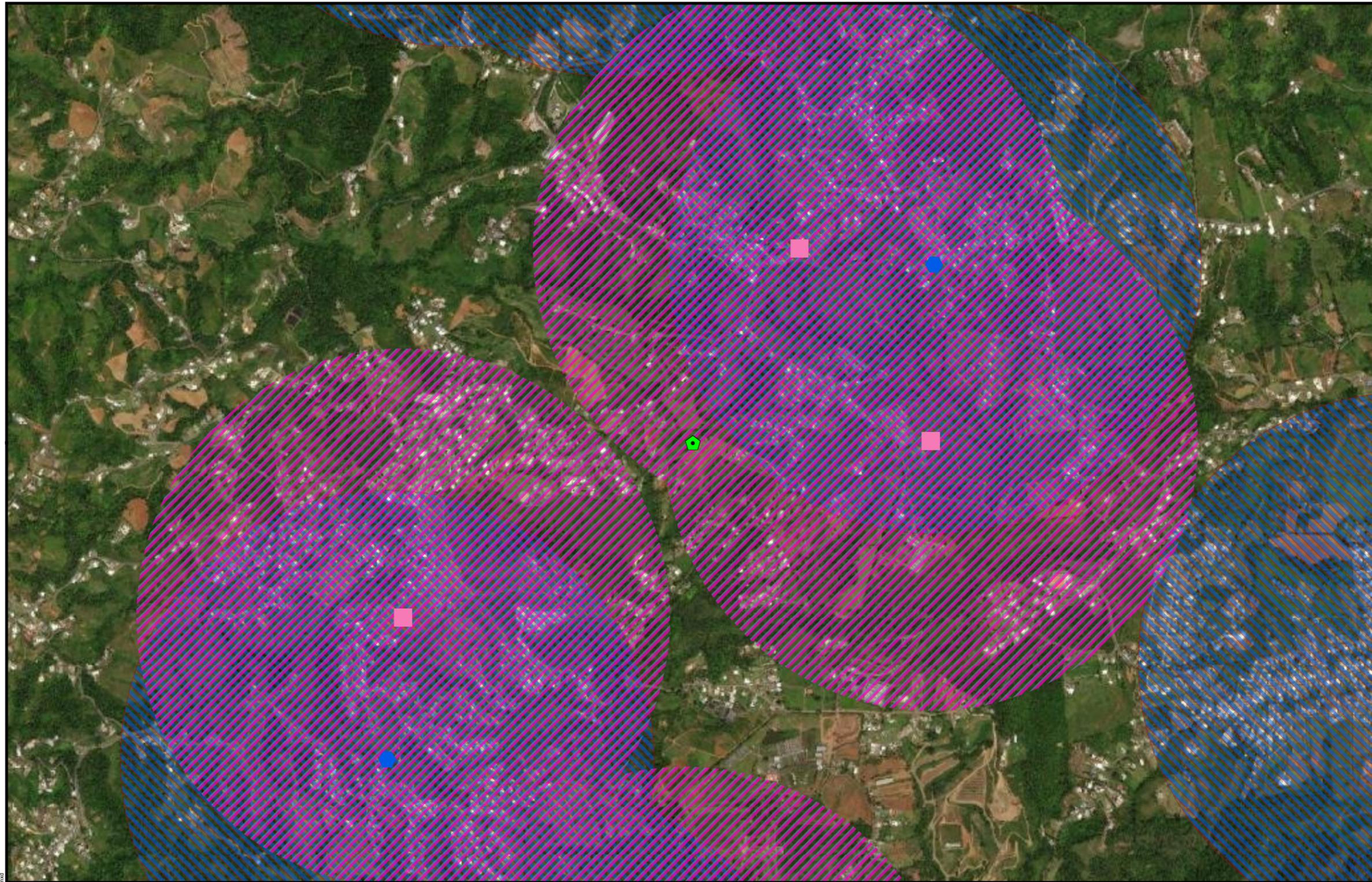
Name of Development: Finca El Agricultor LLC
Parcel Coordinates: 18.239860, -66.280315



Source: NOAA's Ocean Service
<https://data.noaa.gov>

Author: TG Date: 10/17/2023





Legend

-  Project Parcel
-  RCRA
-  Toxic Release Inventory Site
-  NPDES
-  Superfund Site
-  Brownfield Sites
-  3000 Ft Buffer NPDES
-  3000 Ft Buffer TRI
-  3000 Ft Buffer Superfund
-  3000 Ft Buffer RCRA
-  3000 Ft Buffer Brownfield

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Figure 8: TOXIC CHEMICALS AND GASES, HAZARDOUS MATERIALS, CONTAMINATION, AND RADIOACTIVE SUBSTANCES
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315

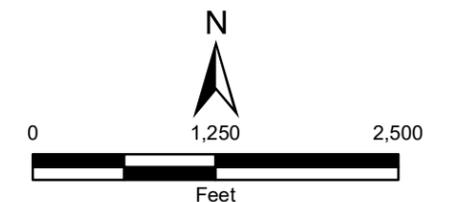


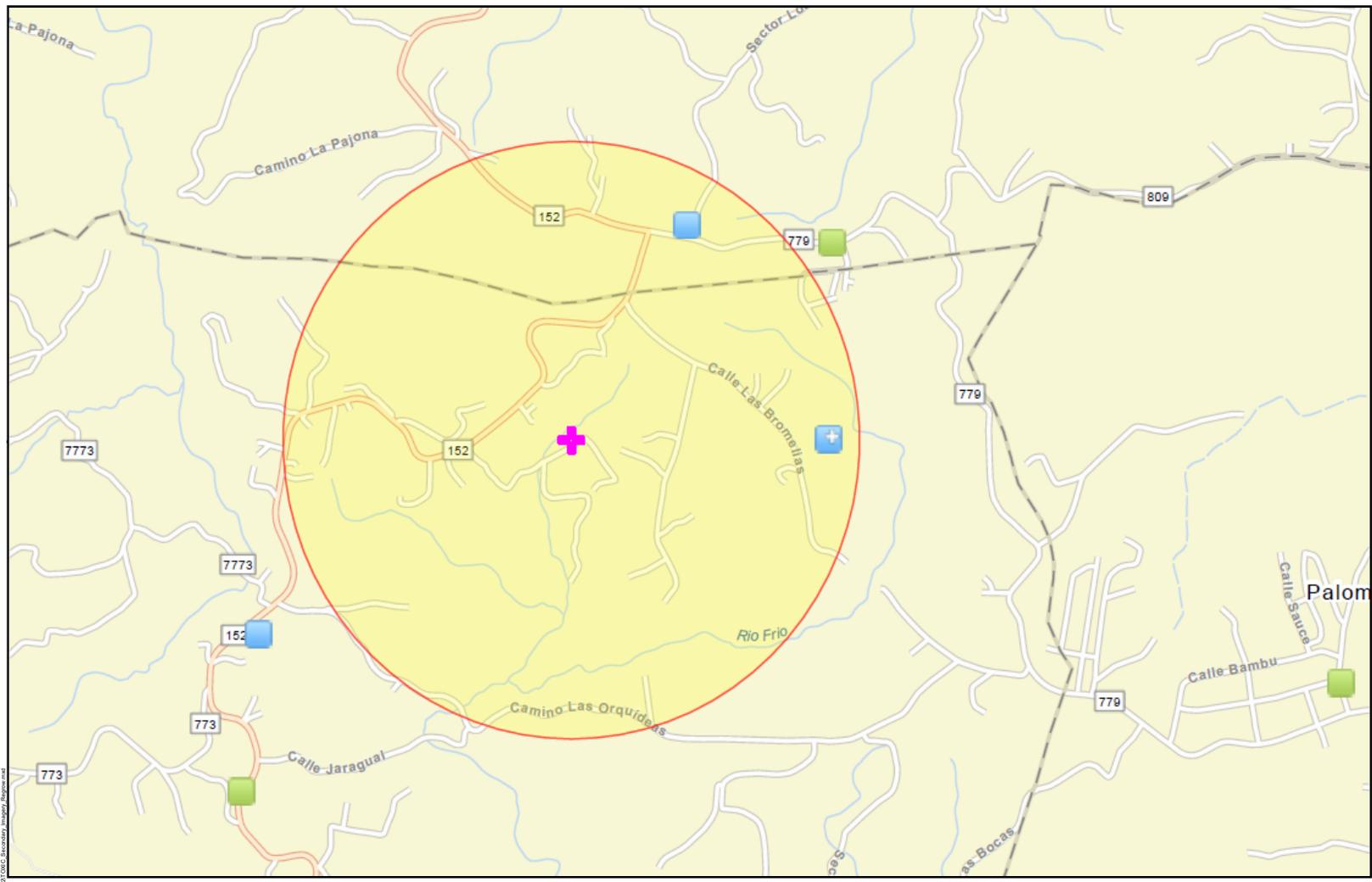
Source: E.P.A.

<https://www.epa.gov/frs/geospatial-data-download-service>

Author: JB/AK

Date: 3/22/2024



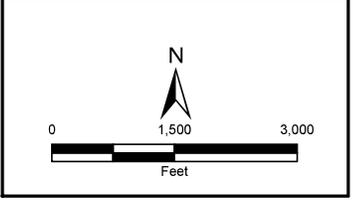


- Legend**
- Superfund (NPL)
 - Toxic Substances Control Act (TSCA)
 - Toxic Releases (TRI)
 - Brownfields (ACRES)
 - Hazardous Waste (RCRAInfo)
 - Water Dischargers (NPDES)
 - Air Pollution (ICIS-AIR)
 - + Project Parcel



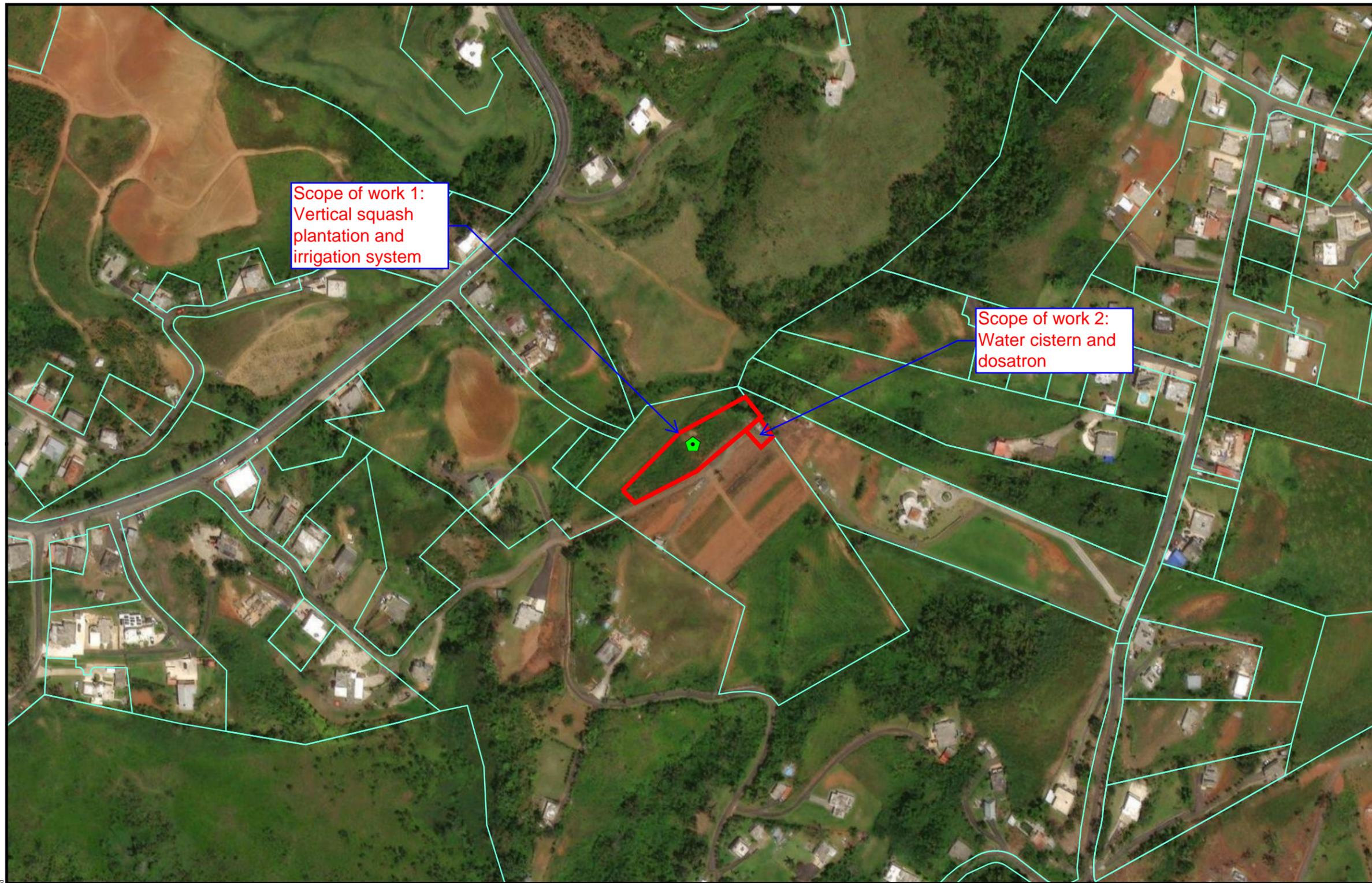
Figure 9: NEPA Assist Map
APPLICANT ID: PR-RGRW-04129

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315



Source: E.P.A.
<https://www.epa.gov/frs/geospatial-data-download-service>
 Author: JB/AK Date: 5/18/2023

File Path: \\us-east-1-p01-bulk-1-corp-prod-s3-us-east-1.amazonaws.com\GIS\Projects\2023\NEPA\Map_Series\Map_Series.mxd
 Date: 5/18/2023 10:58:15 AM
 Author: JB/AK



PUERTO RICO



**Figure 10: ENDANGERED SPECIES ACT
APPLICANT ID: PR-RGRW-04128**

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

Name of Development: Finca El Agricultor LLC

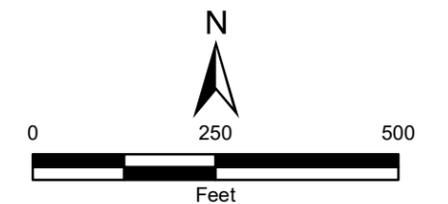
Parcel Coordinates: 18.239860, -66.280315

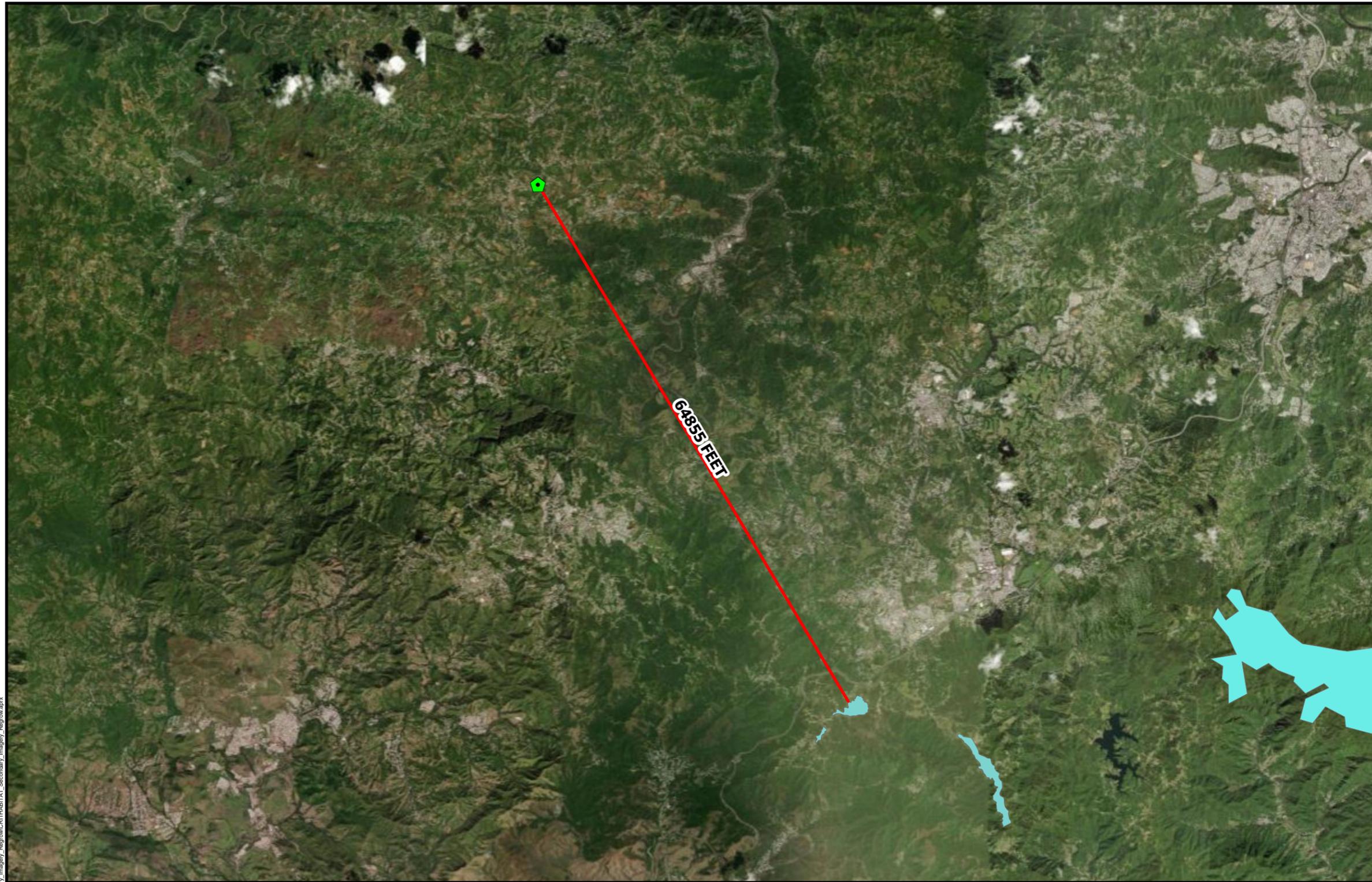


Source: U.S. FISH & WILDLIFE SERVICE
<https://ecos.fws.gov>

Author: TG

Date: 3/12/2024





- Legend**
- ⬠ Project Parcel
 - Elfin-woods warbler
 - Golden coqui
 - No common name

Distance to Nearest Critical Habitat:
6485 Feet

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Figure 11: CRITICAL HABITATS
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

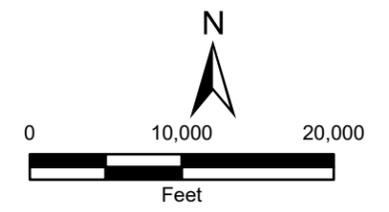
Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315

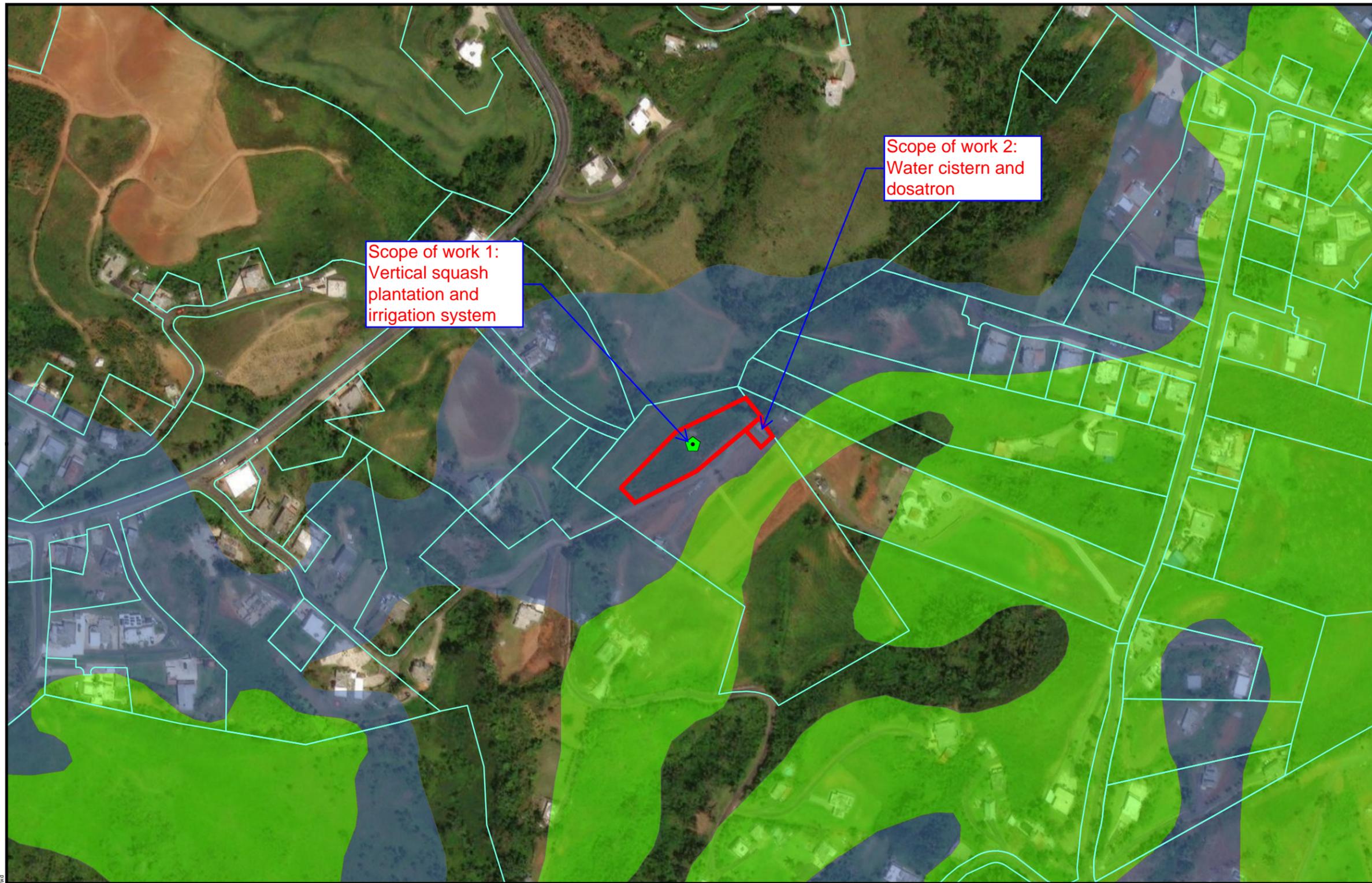


Source: U.S. FISH & WILDLIFE SERVICE
<https://ecos.fws.gov>

Author: TG Date: 11/3/2023



File Path: Z:\data\USFWS\PR\Reg\Reg\GIS\CriticalHabitats_Secondary_Imagery_Regrow\CriticalHabitats_Secondary_Imagery_Regrow.aprx



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
- Area of Potential Effect

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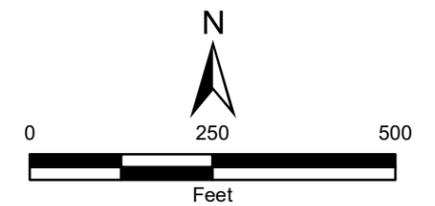


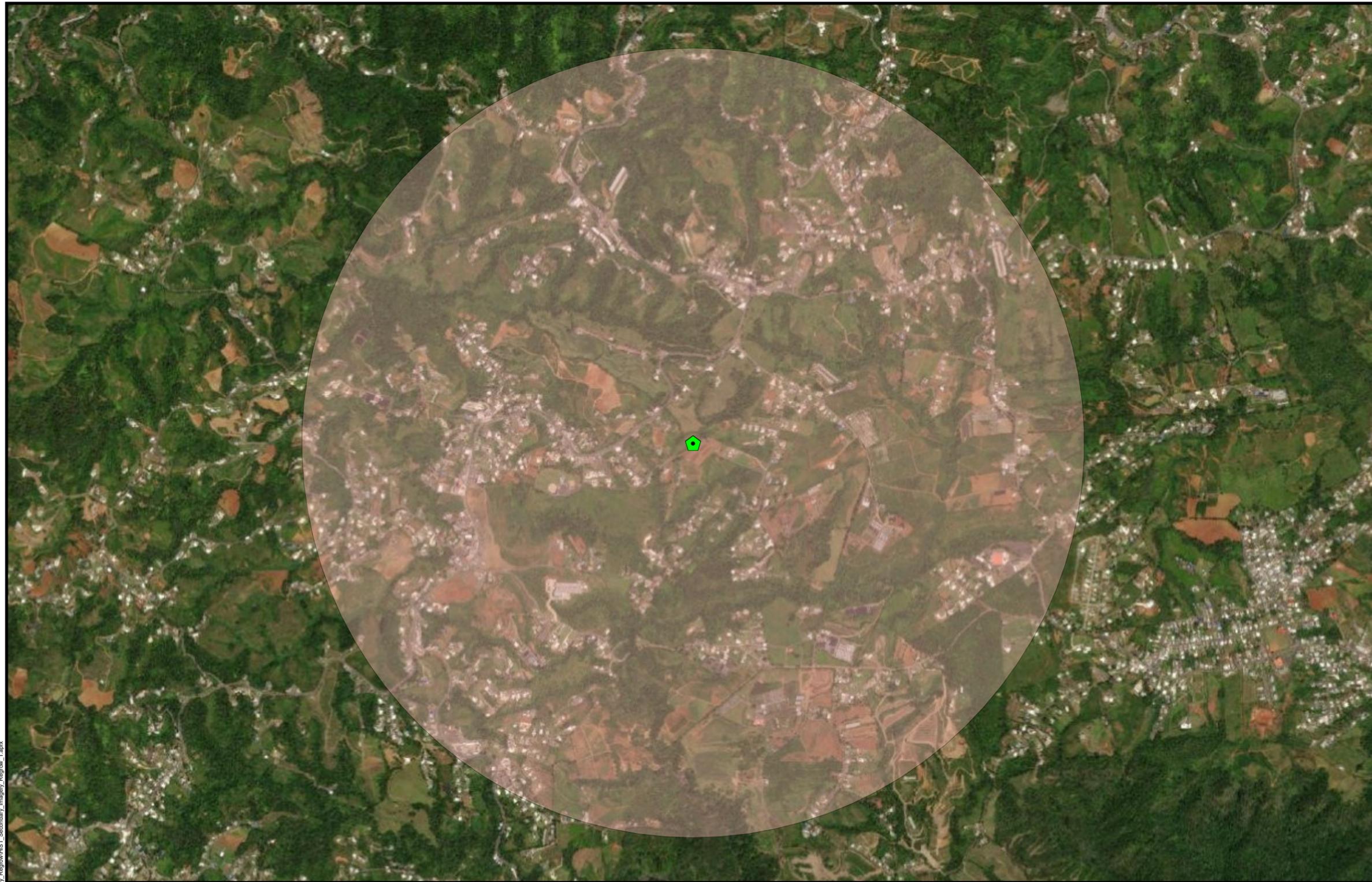
Figure 12: FARMLAND PROTECTION
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315



Source: USDA
<https://websoilsurvey.sc.egov.usda.gov>
 Author: TG Date: 2/29/2024





- 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



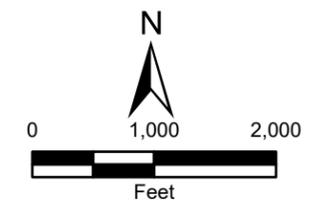
**Figure 13: HISTORIC PRESERVATION
 APPLICANT ID: PR-RGRW-04128**

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315

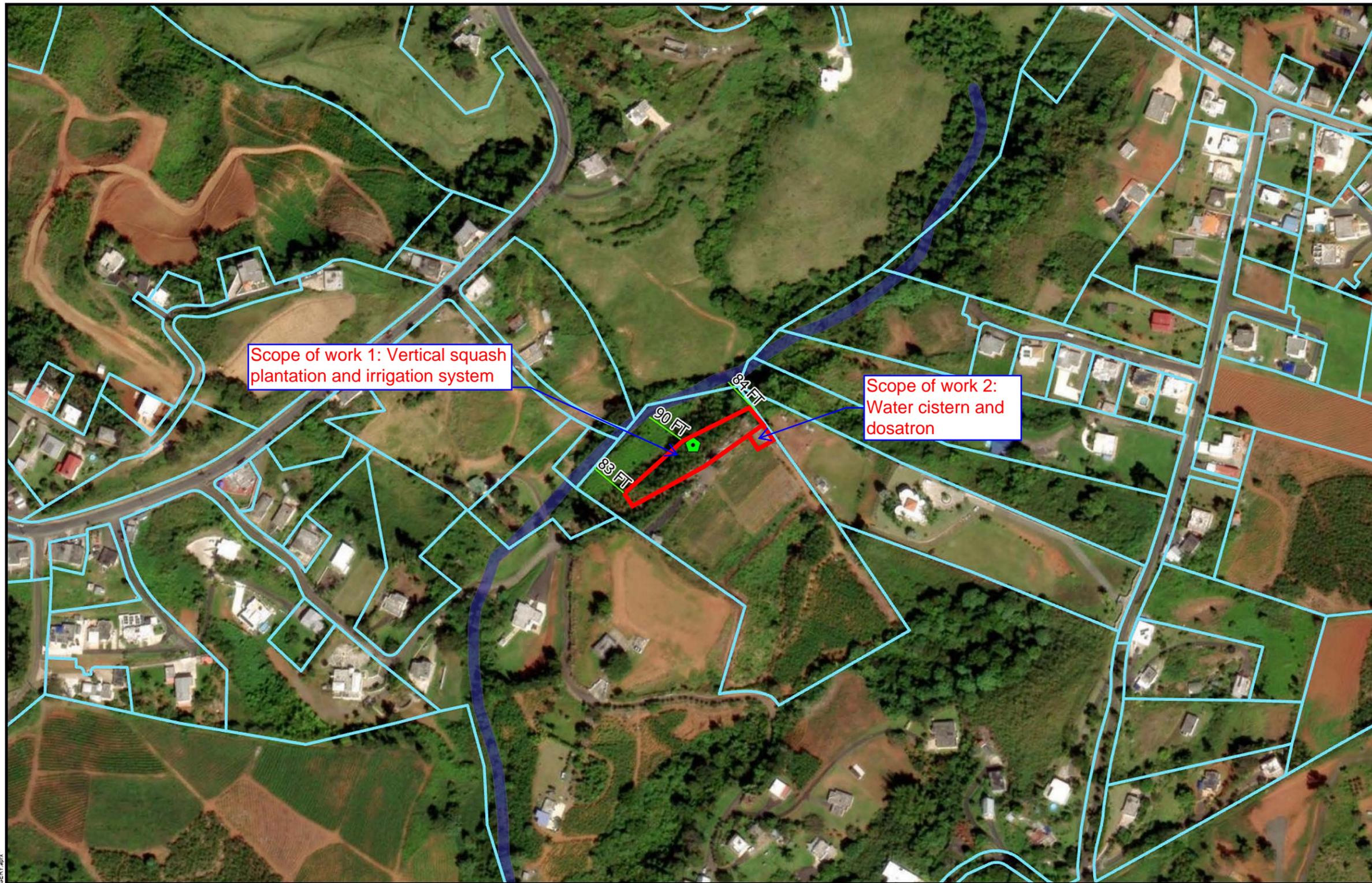


Source: National Park Service
<https://www.nps.gov/>

Author: TG Date: 11/3/2023



File Path: Z:\data\USPRT\Tier2\Regrow\pr\HIST_Secundary_Imagery_Regrow\HIST_Secundary_Imagery_Regrow_1.aprx



- Legend**
- ◆ Tier 2 Site
 - Distance Line
 - Parcels
- WETLAND TYPE**
- Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Riverine
- Area of Potential Effect

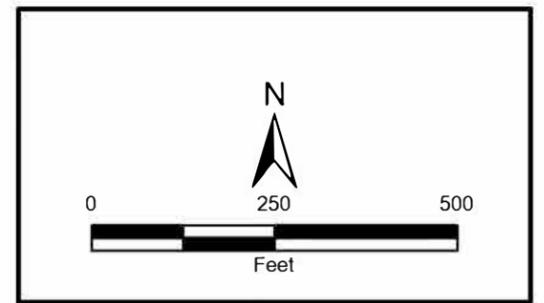
PUERTO RICO

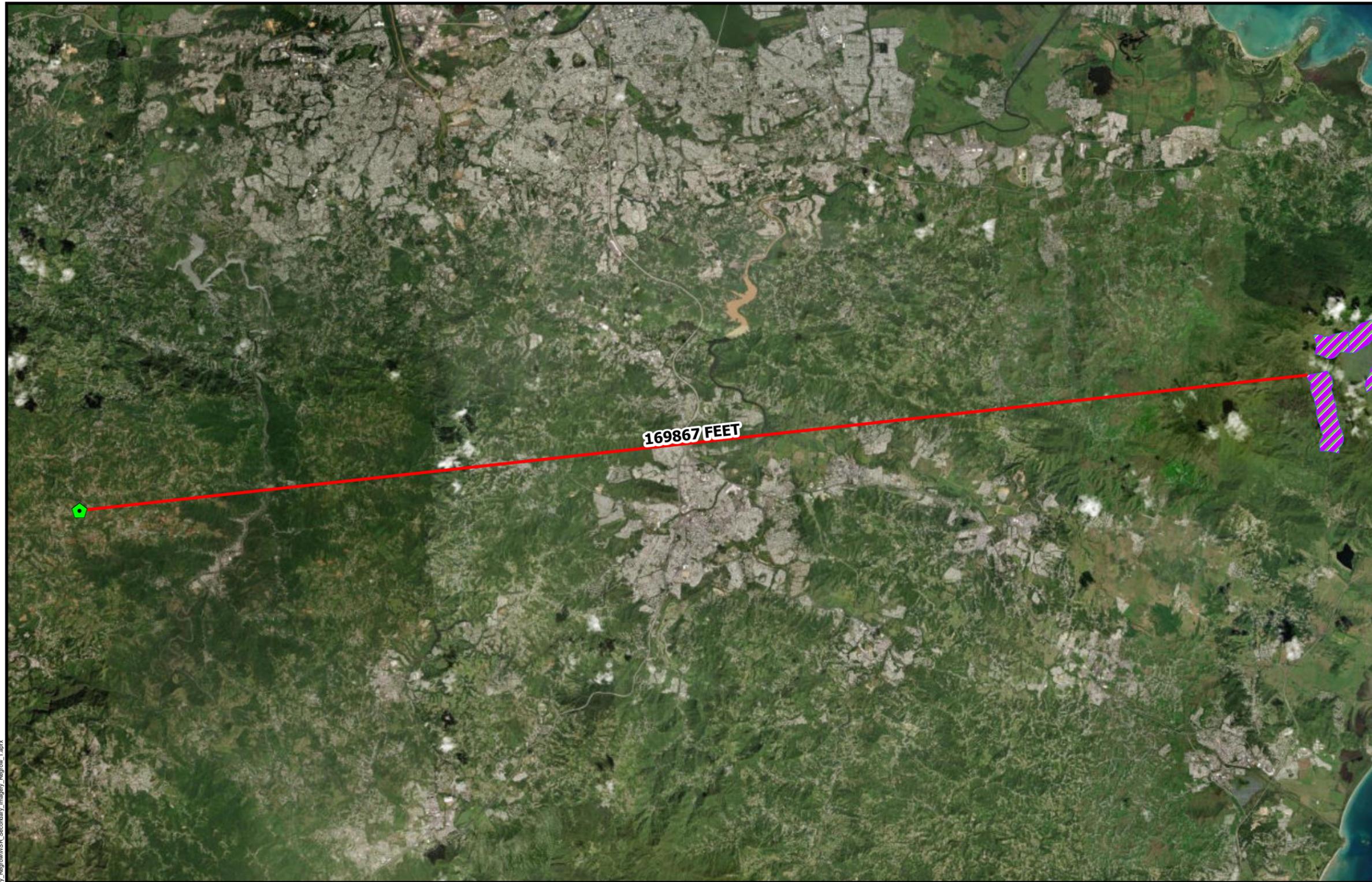


Spatial Reference
Name: WGS 1984 Web Mercator Auxiliary Sphere

Author: TG Date: 6/20/2024

Figure 14: WETLANDS
APPLICANT ID: PR-RGRW-04128
ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315





Legend

-  Project Parcel
-  Wild and Scenic Rivers

Distance to Nearest Wild and Scenic River: 169867 Feet

PUERTO RICO



**Figure 15: WILD AND SCENIC RIVERS ACT
APPLICANT ID: PR-RGRW-04128**

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

Name of Development: Finca El Agricultor LLC

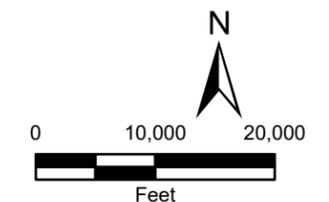
Parcel Coordinates: 18.239860, -66.280315



Source: U. S. Forest Service
<https://www.fs.usda.gov>

Author: TG

Date: 10/23/2023



File Path: Z:\data\USFWS\Tier2\Regrow\SR_Secundary_Imagery_Regrow_1.aprx



- Legend**
- Project Parcel
 - Parcels
- Landslide Susceptibility**
- Extremely High
 - Very High
 - High
 - Moderate
 - Low
- Area of Potential Effect

PUERTO RICO



Figure 16: SLOPE AND EROSION
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

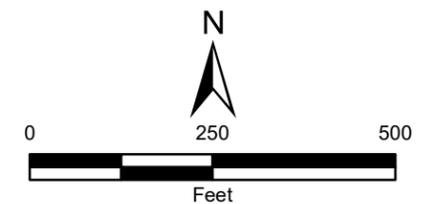
Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315



Source: PRDOH
<https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=10506ecc7f15491daee17647f19248ee>

Author: TG Date: 2/29/2024



File Path: Z:\data\USRT\Final\SLIDE_Secundary_Images\28_Region.mxd



- Legend**
- ◆ Project Parcel
 - Biscayne Aquifer SSA
 - Sole Source Aquifer
 - Streamflow and Recharge Source Zones

Distance to Nearest Aquifer:
5,412,815 FT

PUERTO RICO



File Path: Z:\data\USRT\TheRegrow\SSA\AQUIFER_Secondary_Imagery_Regrow_L1.aprx



Source: USGS
<https://catalog.data.gov/dataset/epa-sole-source-aquifers>

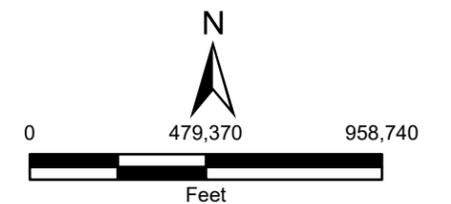
Author: TG Date: 2/21/2024

Figure 17: SOLE SOURCE AQUIFERS
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315



APPENDIX C

Additional Information

Proyecto de Chayote



Finca El Agricultor LLC
(787)-597-1481
Carr. 152 K8 H9 Int BO Quebradillas
Barranquitas PR
PR-RGRW04128

Introducción de la empresa

Finca El Agricultor LLC es una empresa netamente puertorriqueña enfocada en la producción agrícola en Puerto Rico. Contamos con vasta experiencia en diversos sectores de la agricultura tropical. Nuestra prioridad es ofrecer un producto de calidad manteniendo los más altos estándares de seguridad y salud.

Nuestro equipo está compuesto por obreros cualificados y agrónomos expertos. Proporcionamos consultas y soluciones a las necesidades de nuestros clientes durante los proyectos siempre que sean necesarios.

Los cuatro principales objetivos de Finca El Agricultor LLC son:

- Integrar tecnología que facilite la producción y eficiencia agrícola.
- Educar y brindar consultoría sobre las prácticas agrícolas, sus beneficios, ventajas y desventajas.
- Ayudar al desarrollo local de micro-empresas y producción agrícola mediante proyectos pilotos dentro de nuestra finca.
- Producir exitosamente hortalizas, farináceos y frutales en diversos medios de cultivo y aumentar la producción local.

Misión

“En Finca El Agricultor LLC, nuestra misión es producir insumos agrícolas y diversidad de semillas de la más alta calidad en el mercado de la forma más segura y de la manera más económicamente viable posible. Utilizando prácticas agrícolas que aseguren un producto constante y con un precio razonable para el cliente. “

Visión

“Finca El Agricultor tiene como visión convertirse en la empresa líder en propagación de plántulas/semilla y distribución de productos de agrícolas en Barranquitas y municipios limítrofes, posicionarse en la mente del consumidor como el lugar donde puede conseguir lo que necesita, como lo necesita y al precio que lo puede pagar.”

Servicios

Cubrimos todos los aspectos de la implementación agrícola tropical y servicios de consultoría. También ofrecemos una amplia variedad de productos agrícolas frescos producidos en la finca.

Nuestros campos especializados incluyen:

- Consultoría de producción agrícola tradicional.
- Producción de hortalizas.
- Consultoría de producción animal.
- Construcción liviana.
- Producción de Frutales y Farináceos.

Resumen del Proyecto

Costos asociados con el Proyecto

Costo estimado de producción 480 plantas de Chayote en 1 cuerda.		
Enredadera	1 cuerda = 43,000 pies cuadrados	\$ 14,512.85
Cultivo	Semilla, amarres, poda etc.	\$ 1,157.74
Irrigación	Inyectores, filtros, abono, cisterna etc.	\$ 9,980.70
TOTAL		\$ 25,650.44

Producto

El producto a producir, procesar y mercadear es el Chayote blanco Utuadeño variedad liso. Producido en una cuerda de terreno con sistema de riego por gravedad. En adición a otros cultivos ya producidos en la finca como lo son el plátano, yautía, jengibre, guayaba, pitahaya entre otros.

Otros servicios a ser mercadeados

Consultoría en el desarrollo de proyectos agrícolas similares y producción con sistemas de riego por gravedad utilizando inyectores. Finca modelo para la producción de chayote en la zona centro montañosa.

Detalles del Proyecto

Barranquitas es un pueblo mayormente agrícola. Pero su economía se apoya, además, en la industria farmacéutica, el turismo y la artesanía. Los productos agrícolas principales son el plátano y hortalizas, teniendo las condiciones climáticas ideales para la producción de dichos cultivos. Es debido a esto que deseamos habilitar un predio para el cultivo de chayote que se encuentra al barbecho por más de 4 años. El predio cubre un área de 43,000 pies cuadrados con un suelo franco arcilloso y se encuentra a una altura aproximada de 1,345 pies sobre el nivel del mar.

También contará con un sistema de irrigación automatizado de bajo consumo de electricidad. El sistema de irrigación contará con un set de inyectores propulsados por agua que puede ser utilizado con bajas presiones reduciendo la necesidad de bombas de agua eléctricas, en caso de falla con el sistema eléctrico este no se verá afectado.

El proyecto será realizado y supervisado por Agro. Rene Martinez (Propietario/ Retirado Educación Agrícola Barranquitas), Agro. Manuel Cordero (Agente retirado de extensión agrícola Jayuya), Agro. Tony Toro (Departamento de Agricultura división de semillas) y Agro. David Matos (Agente retirado de extensión agrícola Naranjito).

Estructura Legal

L.L.C. (Limited Liability Company) – Compañía de Responsabilidad Limitada

Empleos Projectados (Directos)

Tipo	Año 1	Año 2	Año 3
Administrativos	2	2	2
Cultivo/Cosecha	2	4	6
Total	4	6	8

Personal y Equipo de Trabajo

Plantilla administrativa: Administrador, Empleados del Cultivo, Vendedor



Estructura Salarial

Salarios Administrativos	Salario

Todos	Mínimo Federal
--------------	-----------------------

Aspectos del Sector Agrícola

En la siguiente parte estaremos analizando los aspectos agrícolas del chayote tomando información de fuentes del Departamento de Agricultura y Oficina de Estadísticas Agrícolas.

Ingreso Bruto Agrícola del Chayote en Puerto Rico 1982/83 - 2013/14*				
Año	Unidad	Cantidad	Precio/unidad	Valor(\$'000)
1982/83	millar	4,700	\$ 90.82	\$ 426.9
1983/84*	millar	5,000	\$ 106.49	\$ 532.5
1984/85	millar	7,900	\$ 87.50	\$ 691.3
1985/86*	millar	7,100	\$ 94.15	\$ 668.5
1986/87	millar	8,100	\$ 89.46	\$ 724.6
1987/88	millar	6,900	\$ 105.00	\$ 724.5
1988/89	millar	10,600	\$ 88.36	\$ 936.6
1989/90	millar	6,000	\$ 120.00	\$ 720.0
1990/91	millar	7,000	\$ 95.00	\$ 665.0
1991/92	millar	6,500	\$ 99.00	\$ 643.5
1992/93	millar	4,000	\$ 108.75	\$ 435.0
1993/94	millar	4,000	\$ 126.60	\$ 506.4
1994/95	millar	4,000	\$ 111.65	\$ 446.6
1995/96*	millar	4,000	\$ 97.37	\$ 389.5
1996/97	millar	4,500	\$ 116.50	\$ 524.3
1997/98	millar	4,000	\$ 139.20	\$ 556.8
1998/99	millar	4,736	\$ 140.00	\$ 663.0
1999/2000	millar	1,204	\$ 215.92	\$ 260.0
2000/2001	millar	1,379	\$ 150.54	\$ 207.6
2001/2002*	millar	1,364	\$ 142.03	\$ 193.7
2002/2003	millar	1,350	\$ 133.99	\$ 180.9
2003/2004	millar	1,531	\$ 158.77	\$ 243.1
2004/2005	millar	1,255	\$ 159.05	\$ 199.6
2005/2006	millar	1,255	\$ 161.21	\$ 202.3
2006/2007*	millar	1,238	\$ 168.50	\$ 208.6
2007/2008	millar	1,232	\$ 174.07	\$ 214.5
2008/2009	millar	1,293	\$ 165.38	\$ 213.8
2009/2010	millar	1,086	\$ 195.20	\$ 212.0
2010/2011	millar	1,204	\$ 178.22	\$ 214.6
2011/2012	millar	1,834	\$ 184.35	\$ 338.1
2012/2013	millar	3,589	\$ 45.70	\$ 164.0
2013/2014*	millar	3,736	\$ 75.75	\$ 283.0

*cifras preliminares

Según la tabla de ingreso bruto de chayote para el 2014 se produjo un aproximado de 3,736,000.00 de Chayotes a un precio por unidad de 1000 chayotes por 75.75 dólares.

Generando así un total de 283,000.00 dólares en ventas de Chayote para el 2014. Con esta información podemos estimar que es un producto rentable si se mercadea de una manera adecuada ya que es un cultivo de un nicho específico.

Análisis FODA

En el siguiente análisis expondremos cuales son las fortalezas, oportunidades, debilidades y amenazas de la producción de tomate proyectada bajo el manejo de nuestra empresa.

Fortalezas

- Producto fresco y de calidad.
- Ideas agrícolas innovadoras.
- Amplio conocimiento sobre el manejo del cultivo a desarrollar.
- Implementación de equipos que aumentará la eficiencia en la producción.

Oportunidades

- Condiciones climáticas ideales para el cultivo del chayote.
- Demanda del producto a nivel local.
- Incentivos agrícolas para cultivos especializados.
- Mercado externo en crecimiento de productos orgánicos.

Debilidades

- Cosecha de productos no mercadeables.
- Problema de accesibilidad al producto debido a la distancia.
- Baja capacidad de inversión.
- Dependencia del mercado exterior a distancia para insumos.
- Empleados no diestros o falta de conocimiento.

Amenazas

- Robo del producto y/o componentes del cultivo.
- Desastres Naturales (Huracán, Tormentas, Terremotos...etc.)
- Disminución de la demanda del chayote o subproducto.
- Importaciones desmedidas de chayote del extranjero.

Mercado

En el siguiente documento estaremos brindando algunos aspectos del mercado que proyectamos enfrentar con nuestro producto.

Clientes y/o clientes potenciales:

A. Primarios

- Jóvenes (12-18), Adultos (19-59) y Adultos de la tercera edad (60-99), clase media y media alta.

B. Secundarios

- Importadores y distribuidores.
- Comercios detallistas
- Dueños de restaurantes
- Importadores de productos orgánicos
- Ventas en línea "Online"
- Negocios "Food Trucks"

Tamaño del Mercado

Cantidad en Unidades (2014)	1,136,830qq
Consumo per cápita	16.78lb (64.70%)
Tamaño en dinero (\$)	\$31,205.00

Crecimiento de la industria

La industria del chayote ha decaído debido a factores climatológicos y económicos. A su vez la demanda en aumento impulsa a la importación del chayote extranjero de menor calidad y fresca. Siendo esto un factor de beneficio para la revitalización de la industria del chayote en la zona.

Tendencias

En la siguiente tabla compilamos las tendencias de mayor importancia para la venta de hortalizas.

Mercados Agrícolas	<ul style="list-style-type: none"> · Nichos de producción (Chayote Blanco Liso) · Productos Orgánicos · Nuevos Productos- Subproductos del chayote (Apple pie filler).
Mercados Familiares	<ul style="list-style-type: none"> · Enfocado en población que recibe transferencias. · Espacio para pequeños y medianos comerciantes. · Oportunidad para productos tradicionales
Mercados Ambulantes	<ul style="list-style-type: none"> · Food Trucks · Carritos de comida
Turismo	<ul style="list-style-type: none"> · Nuevos restaurantes · Restaurantes enfocados en productos locales de temporada · Nuevos cultivos · Nuevos Productos
Agroturismo	<ul style="list-style-type: none"> · “Open farm” · Actividades educativas de índole agrícola.

Competencia

La competencia de productores locales en la industria del chayote es mínima debido a los acontecimientos de desastres naturales en la industria agrícola y economía de Puerto Rico. Sin embargo la competencia principal es el chayote extranjero vendido a un costo muy bajo.

Precio de Chayote en diversas cadenas de supermercados.		
SuperMax	Chayote	\$1.87 LB
Econo	Chayote	\$1.90 LB
Amigo	Chayote	\$1.88 LB
La Comprita	Chayote	\$1.49 LB

Mercadeo

En la siguiente sección exponemos algunos aspectos del Mercadeo esenciales para el éxito del producto.

Producto

Producto	Chayote
Nombre de la Marca	Finca El Agricultor LLC
Empaque	Cajas de Cartón y Sacos (biodegradables)
Estándar de Calidad	El más alto posible bajo las circunstancias
Tamaño de empaque	Cajas con cupo de 25 lb y sacos de 50 lb.

Competencia	Otros productores no registrados.
Diferencia de la Competencia	Mejor calidad y máxima frescura.

Precio

Precio establecido por el Mercado Agrícola	\$ 1.25 lb
Caja de Chayote (25 lb) y saco (50 lb).	\$31.00 y \$62.00 *Sujeto a oferta y demanda.

Plaza

1) ¿Dónde venderá sus productos?

Mercados Agrícolas, Mercados Familiares, Agroturismo, Restaurantes nuevos, exportación, festivales tradicionales, festivales agrícolas y en línea "online".

2) ¿Dónde se procesa o se producirá el producto?

El producto se producirá en un predio con un espacio aproximado de 43,000 pies cuadrados, con sistema de riego que le proporcionará los nutrientes necesarios sin importar las condiciones climáticas, aumentando la calidad del producto a cosechar.

El producto se procesa en un espacio destinado cerca de la entrada del predio donde será lavado y empacado para ser transportado a las áreas de ventas previamente enumeradas.

3) ¿Cuál será el canal de distribución del producto y donde se almacenará?

Directos: Agroturismo, turismo, open farm

Cortos: Online

Largos: Hostelería, tiendas de barrio, etc.

Dobles: Importadores exclusivos, etc

El producto se almacenará en un vagón en una área establecida cerca del cultivo. El almacenaje será de menor escala ya que se busca que el producto sea consumido lo más fresco posible.

Promoción

- 1) **¿Qué arte y etiqueta utilizará en su empaque para que resalte su producto?**

El arte a utilizar será un logo minimalista con un arado antiguo de una hoja. En adicción, tendrá escrito en letra molde: Finca El Agricultor LLC.



- 2) **¿Qué táctica de introducción en el mercado utilizará para su producto?**

Precio de introducción – Primeros 60 días

Nuevas variedades – Chayote variedad liso.

- 3) **¿Dónde promociona su producto?**

La mayor parte de la promoción se realizará en diversas redes sociales como: Instagram, Facebook, Twitter, TikTok y YouTube. Las principales redes sociales que utilizaremos al comienzo del proyecto serán Instagram

y Facebook, ya que estas están atadas a la misma compañía de origen, lo cual nos resulta más fácil su manejo.

En adición, estaremos visitando varios festivales alrededor de la isla promocionando nuestra marca con productos del proyecto. También auspiciamos varios mercados agrícolas ambulantes para aumentar la demanda de los productos desarrollados en Puerto Rico.

Análisis de Ingresos y Gastos

Gastos estimados del proyecto

Actividad, Servicios o Insumos	Mes	Cantidad	Unidad	valor unidad	costo total
Preparación del Terreno					
Corte	1	2	Tarea	\$125,00	\$250,00
Cruce		2	Tarea	\$125,00	\$250,00
Rastra		2	Tarea	\$125,00	\$250,00
Surqueo		2	Tarea	\$125,00	\$250,00
Total					\$1.000,00
Insumos					
Alambre galv #12	1	2	quintales	195	\$390,00
Alambre		13	28lbs	39,95	\$519,35
Postes		42	c/u	55,95	\$2.349,90
Postes		198	c/u	29,95	\$5.930,10
Bloques		110	c/u	1,45	\$159,50
Cable tensor		8	pies	110	\$880,00
Tensores		300	c/u	3,95	\$1.185,00

Semillas		480	semillas	1	\$480,00
Hilo para amarre		1.5	libra		\$0,00
Alambre de ovejo		7	rollo	\$79,95	\$559,65
Postes de Metal		150	c/u	\$6,95	\$1.042,50
Irrigación					\$6.995
Total					\$20.491,00
Construcción de emparrado					
Hoyado de terreno		2	dia-hombre	\$64,00	\$128,00
Colocación de postes	1	2	dia-hombre	\$64,00	\$128,00
Alambrado		2	dia-hombre	\$64,00	\$128,00
Construcción de espalderas		2	dia-hombre	\$64,00	\$128,00
Total					\$512,00
TOTAL					\$22.003,00

Actividad, Servicios o Insumos	Mes	Cantidad	Unidad	Valor unidad	Costo total
Fertilización					
Abono orgánico		250	lbs	\$8,72	\$2.180,00
Abono foliar		10	litro	\$41,00	\$410,00
Control de malezas	1	1	dia-hombre	\$67,00	\$67,00
Aplicación de insecticidas		10	litro	\$59,17	\$591,70
Aplicación de fungicidas		10	litro	\$33,81	\$338,10
Total					\$3.176,80
Otras labores de campo					
Control de maleza		1	dia-hombre	\$67,00	\$67,00
Amarre de ramas	2	1	dia-hombre	\$67,00	\$67,00
Podas de formación		2	dia-hombre	\$67,00	\$134,00

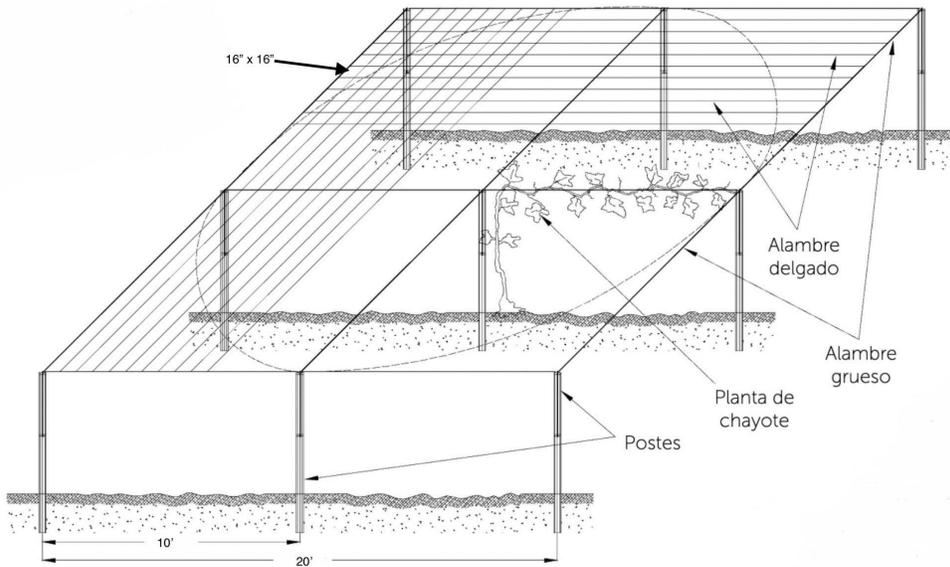
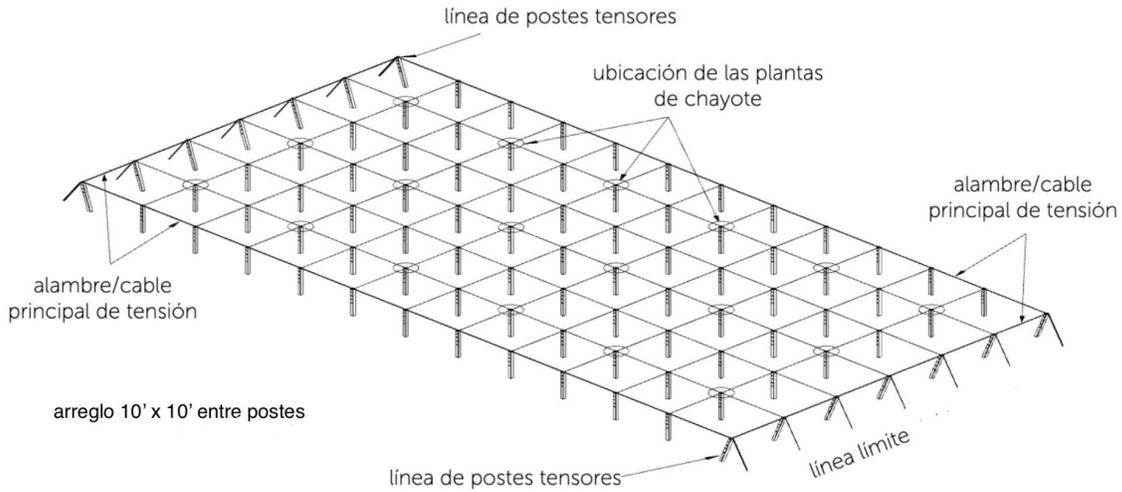
Actividad, Servicios o Insumos	Mes	Cantidad	Unidad	Valor unidad	Costo total
Fertilización					
Abono orgánico	1	250	lbs	\$8,72	\$2.180,00
Abono foliar		10	litro	\$41,00	\$410,00
Control de malezas		1	dia-hombre	\$67,00	\$67,00
Aplicación de insecticidas		10	litro	\$59,17	\$591,70
Aplicación de fungicidas		10	litro	\$33,81	\$338,10
Total					\$268,00
Cosecha					
Primera cosecha	3	2	dia-hombre	\$64,00	\$128,00
Empacado		1	dia-hombre	\$64,00	\$64,00
Total					\$192,00
TOTAL					\$3.636,80
TOTAL FINAL					\$25.650,44

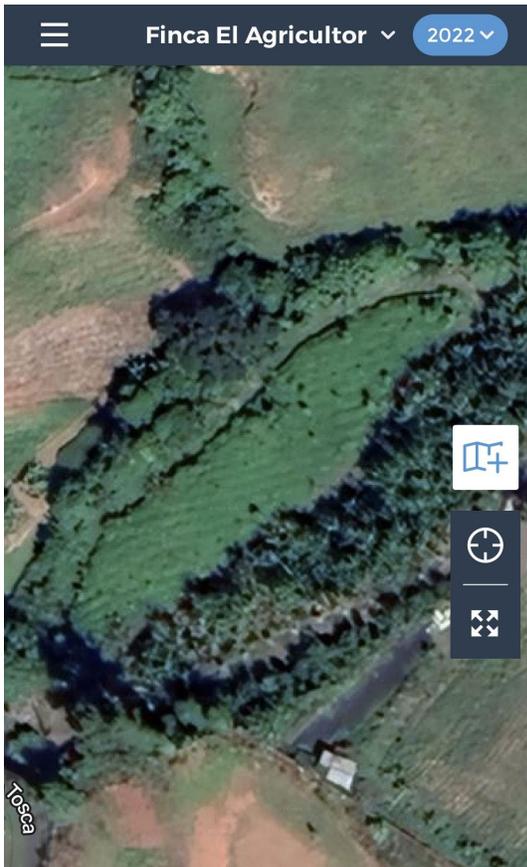
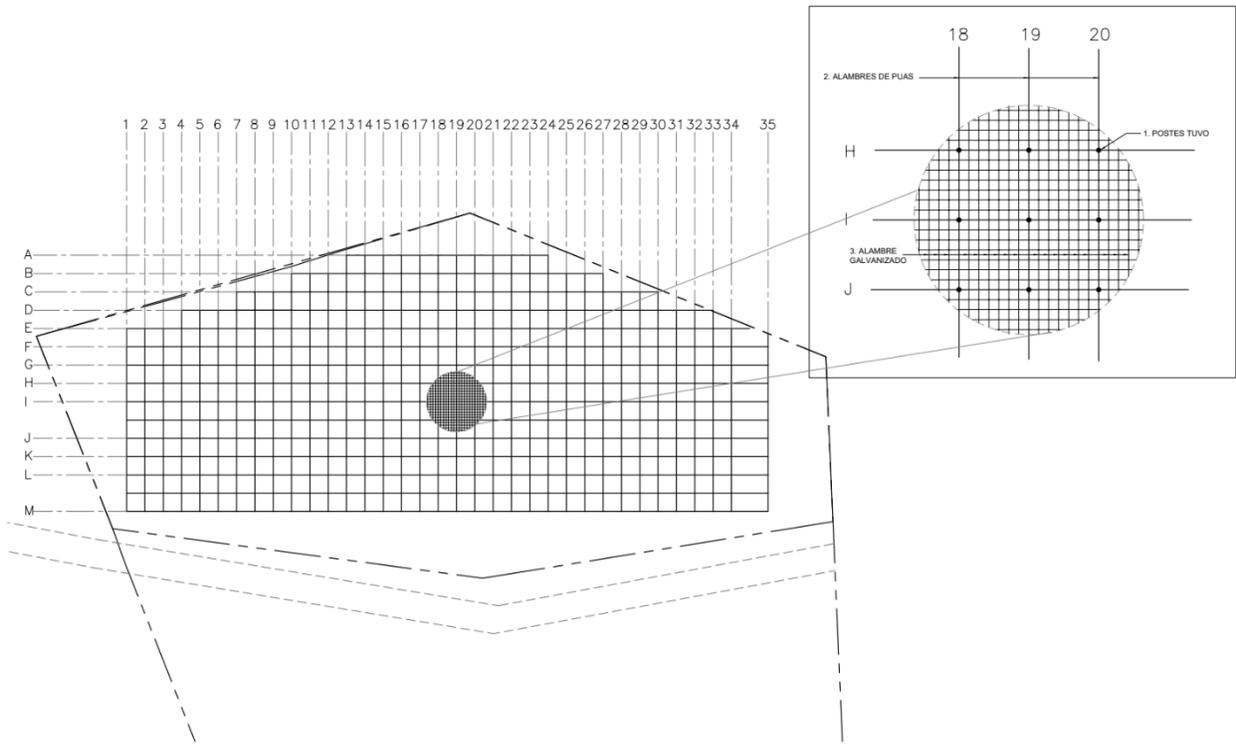
Producción Estimada

Producción Estimada					
Producto	Cantidad de Plantas	Libras por Planta	Libras Totales	Precio de Venta	Monto Total
Chayotes	460	76 libras	34960 libras	\$1,25	\$43.700,00
Semillas	460	8 libras	3680 libras	\$0,75	\$2.760,00
Total					\$46.460,00

Estructura (Enramada)

La estructura será de alambre calibre 12 y 18 (púas) con postes (tubos de metal) distanciados a 10 pies por 10 pies con una altura de 7 pies aproximadamente. El soporte para la planta será de alambre dulce y creará cuadros de 16 pulgadas x 16 pulgadas. Alrededor del cultivo se utilizará alambre de ovinos con postes de metal a 8 pies de distancia como medida de protección del cultivo.





Manejo del cultivo

El control de maleza se llevará a cabo de manera mecánica (trimmer) y también manual (azada) constantemente hasta obtener una densidad foliar considerable que disminuya el crecimiento de yerbajos.

Las plagas principales del chayote lo son el Gusano Barrenador (*Diaphania nitidallis*), Gusano del Pepino (*Diaphania hyalinata*), *Aphys gossipy*, Ácaro rojo, trípidos y áfidos.

Para el control de esas se realizarán muestreos de campo bi semanalmente para determinar el tratamiento a utilizar.

La poda o deshoje se llevará a cabo una vez se realice la primera cosecha de temporada.

SEMANAS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
ETAPAS DE DESARROLLO	GERMINACION				BROTACION				TRANSPLANTE				CRECIMIENTO DE TALLO	INICIO DE LA FLORACION	BROTACION	RAMIFICACION	INICIO DE LOS FRUTOS	FRUTOS MADUROS				VIVIPARIDAD				BROTACION Y FRUCTIFICACION							
LABORES					DESHIERBE		REMOVER LA TIERRA		TRANSPLANTE O SIEMBRA DE SEMILLA								PODA LIGERA		AMARRE DE PLANTAS				COSECHA				OBTENCION DE LAS SEMILLAS						
PLAGAS Y ENFERMEDADES					ARANITA ROJA, PERFORADORES DEL FRUTO, MOSCA BLANCA Y AFIDOS								PECA BLANCA, RONA, VEJIGA, FUSARIUM																				
CONTROL	HACER APLICACION DE TRATAMIENTO																EVITAR EXCESOS DE HUMEDAD																

tabla. plan semanal del manejo del chayote

Fertilización y Riego

El abonamiento se realiza por medio de inyectores calibrados para el requerimiento del cultivo según la etapa y condición del cultivo.

La fertilización se llevará a cabo por medio de líneas de riego con nipples individuales por cada planta. Cada nipple es capaz de suministrar 0.5 galones por hora y estará conectado a un manga “espaguete” con una estaca de goteo en la base de la planta, asegurándonos de esa manera que siempre reciba su riego. Según la data, cada planta consume un aproximado de 4 litros diarios por planta, por lo cual en base a esta información calculamos que nuestro predio consumirá un aproximado de 500 galones al día.

El agua se le suministrará por gravedad al sistema de inyectores eliminando el uso de bombas de agua y minimizando el consumo energético del predio en caso de avería con en el sistema eléctrico.

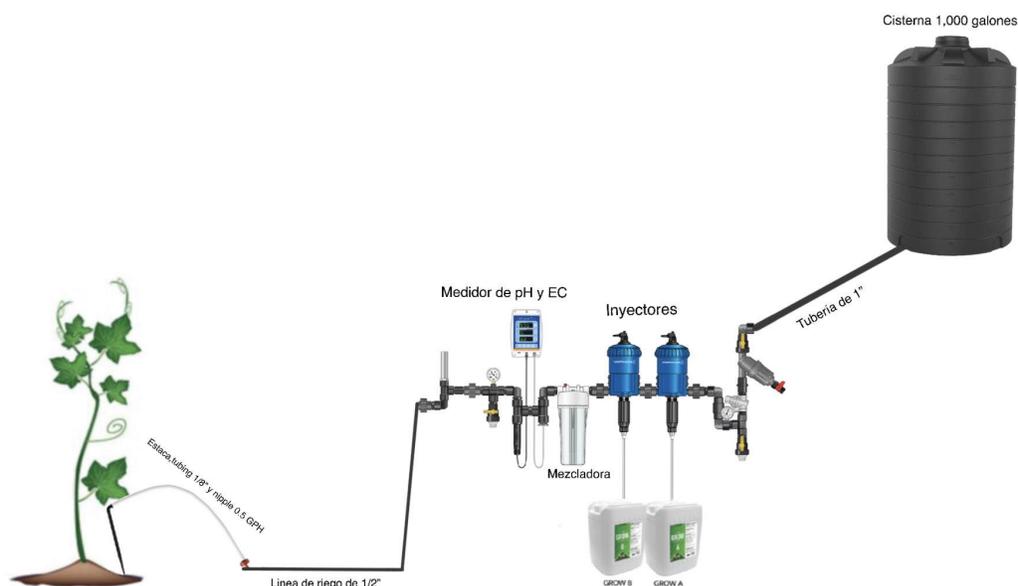


diagrama básico del sistema de riego

Producción general de la finca

Aparte del proyecto de chayote que deseamos desarrollar, incluimos otros cultivos que ya están establecidos y produciendo como también otros cultivos proyectados en los predios designados.

Actualmente en la finca se está produciendo plátano, yautía, ñame, jengibre, batata, pitahaya, guanabana, guayabas, ajíes y malanga.

Otra área que se está desarrollando es la propagación de plántulas y manejo de semillas. Estableciendo 3 umbráculos con un espacio de 25 pies de largo con 10 de ancho cada uno. Dentro de las plántulas y semillas a manejar se encuentran el apio, ajíes, ornamentales, plátano, frutales, cítricos entre otros basados en la temporada.

Mapa de predios con cultivos establecidos y proyectados.





Almacen	Predio B
Almacen	Apio
Área de Propagación	Predio C
Propagación	Apio
Chayote	Predio D
Siembra de chayote	Plátano
Cultivos Misceláneos	Predio E
Misceláneos	Yautia
Oficina	Predio F
Oficina	Plátano
Predio A	Predio G
Apio	Descanso
	Semillero Platano
	Propagación

Área para establecer la Chayotera



Bibliografía

- Lam, Frank. *GUÍA TÉCNICA DEL CULTIVO DE TAYOTA*. Santo Domingo, República Dominicana, PRESSAC, 2016. *Info Agro*, <https://infoagronomo.net/guia-tecnica-de-cultivo-de-chayote-pdf/>. Accessed 3 Octubre 2022.
- Rosas-Calleja, D., et al. "Descripción de la estructura de soporte para el cultivo de chayote (*Sechium edule* (Jacq). Swartz), y propuesta de un nuevo modelo." *AGRO PRODUCTIVIDAD*, vol. 12, no. 9, 2019, p. 17. 1193, <https://www.revista-agroproductividad.org/index.php/agroproductividad/article/view/1193/1188>. Accessed 29 09 2022.
- Resh, H. M. (2013). *Hydroponic Food Production*. Florida: CRC press, Taylor & Francis group.(Irrigation)
- Tom Vilsack, Joseph T. Reilly. (2014). *2012 Census of Agriculture*. Puerto Rico: United States Department of Agriculture.
- Zapater, R., & Rodríguez, A. G. (2019). *GUIA AGRO EMPRESARIAL*. Agroinnova: USDA Farmers Market Promotion Program.

**ACUEDUCTO COMUNAL
BARRIO QUEBRADILLAS
BARRANQUITAS, P.R., INC.**

26 de junio de 2024

A quien pueda interesar:

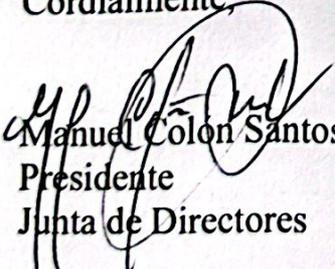
Reciban un cordial saludo de la Junta de Directores del Acueducto Comunal del Barrio Quebradillas de Barranquitas, Inc.

La presente es para certificar que el Sr. Rene Martinez Zayas, recibe el servicio de agua potable del Acueducto Comunal, en su propiedad, Finca Agricultor LLC, localizada en Carr. #152, Km. 8.8, Int. Barrio Quebradillas, Barranquitas, Puerto Rico.

De necesitar información adicional al respecto, pueden comunicarse al teléfono 787-516-1950 ó a la siguiente dirección: Hc-1 Box 5191, Barranquitas, Puerto Rico 00794

Sin otro particular a que referirme por el momento, quedo de ustedes

Cordialmente,


Manuel Colon Santos
Presidente
Junta de Directores



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 February 29, 2024

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

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

Change the State:

PUERTO RICO

Important Notes

Download National Dataset: dbf | xls | Data dictionary (PDF)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/Part County	Population (2010)	State/County FIPS Codes
PUERTO RICO								
Arecibo Municipio	Lead (2008)	Arecibo, PR	1112131415161718192021222324	//		Part	32,185	72/013
Bayamon Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	22,921	72/021
Catano Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Whole	28,140	72/033
Guaynabo Municipio	PM-10 (1987)	Mun. of Guaynabo, PR	929394959697989900010203040506070809	02/11/2010	Moderate	Part	90,470	72/061
Guaynabo Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	23,802	72/061
Salinas Municipio	Sulfur Dioxide (2010)	Guayama-Salinas, PR	18192021222324	//		Part	23,401	72/123
San Juan Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	147,963	72/127
Toa Baja Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	52,441	72/137

Important Notes



Detailed Facility Report

Facility Summary

PRASA WTP CEDRO ARRIBA PLANT

PR-779 KM 9.9 INT 152, NARANJITO, PR 00719

FRS (Facility Registry Service) ID: 110009815003

EPA Region: 02

Latitude: 18.24581

Longitude: -66.276853

Locational Data Source: NPDES

Industries: --

Indian Country: N

Enforcement and Compliance Summary

Statute	CWA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	10/04/2019
Compliance Status	Violation Identified
Qtrs in Noncompliance (of 12)	3
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): Non-Major, Permit Effective (PR0022659)

Resource Conservation and Recovery Act (RCRA): No Information

Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): No Information

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110009815003					N	18.24581	-66.276853
ICIS		40545					N	18.224368	-66.231571
ICIS-NPDES	CWA	PR0022659	Non-Major: NPDES Individual Permit	Effective		10/31/2024	N	18.247778	-66.277222

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110009815003	PRASA WTP CEDRO ARRIBA PLANT	PR-779 KM 9.9 INT 152, NARANJITO, PR 00719	Naranjito Municipio
ICIS		40545	PRASA WTP CEDRO ARRIBA PLANT	STATE RD 779, INT. RD 152 KM 9.9, NARANJITO, PR 00719	Naranjito Municipio
ICIS-NPDES	CWA	PR0022659	PRASA CEDRO ARRIBA WTP	STATE ROAD 779 KM 9.9 INT. 152, NARANJITO, PR 00719	Naranjito Municipio

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-NPDES	PR0022659	4941	Water Supply

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
No data records returned			

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description
PR0022659	000	No Applicable Effluent Guidelines

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

Enforcement and Compliance

Compliance Monitoring History Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CWA	PR0022659	ICIS-NPDES	Inspection/Evaluation	Base Program - Evaluation	EPA	10/04/2019	

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> activities or because they are not counted as inspections within EPA's Annual Results <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CWA	PR0022659	No	12/31/2023	3	03/15/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13*
	CWA (Source ID: PR0022659)	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/15/24
	Facility-Level Status	Violation Identified	Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	Violation Identified
	Quarterly Noncompliance Report History	Reportable Noncompliance	Reportable Noncompliance	Resolved - Pending	Resolved - Pending									
	Pollutant	Disch Point	Mon Loc	Freq										
CWA	BOD, 5-day, 20 deg. C <effluent-charts#pr0022659/00310> <https://epa.gov/effluent-charts#pr0022659/00310>	001 - Q	Effluent Gross	NMth										24%
CWA	Chlorine, total residual <effluent-charts#pr0022659/50060> <https://epa.gov/effluent-charts#pr0022659/50060>	001 - A	Effluent Gross	NMth	1173%			17173%						

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13*
CWA	Copper, total [as Cu] <effluent-charts#pr0022659/01042> <https://epa.gov/effluent-charts#pr0022659/01042>	001 - A	Effluent Gross	NMth	168%									
CWA	Lead, total [as Pb] <effluent-charts#pr0022659/01051> <https://epa.gov/effluent-charts#pr0022659/01051>	001 - A	Effluent Gross	NMth	2191%									
CWA	Phosphorus, total [as P] <effluent-charts#pr0022659/00665> <https://epa.gov/effluent-charts#pr0022659/00665>	001 - A	Effluent Gross	NMth	527%									
CWA	pH <effluent-charts#pr0022659/00400> <https://epa.gov/effluent-charts#pr0022659/00400>	001 - A	Effluent Gross	Neither	LIMIT VIOLATION				LIMIT VIOLATION					

Informal Enforcement Actions Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date
---------	--------	-----------	----------------	-------------	------

No data records returned

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions Last 5 Years

Statute	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
---------	--------	-------------	-----------	----------------	----------	-------------	-----------	-------------------	---------------------	------------------------	--------------------------	------------------------------	--------------------------	-----------	------------------

No data records returned

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210100020102	Rio Mavilla	FRIJO RIVER	No	No	--	No

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
PR	2020	PRNR9C	RIO MAVILLA	Impaired - With Restoration Plan	PATHOGENS	Not Assessed	Insufficient Information	--	Not Supporting	--

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
-----------	-----------------------------------	---	---------------------------------	---

No data records returned

Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
-----------------	------	---------------	--------------------------	--	------------------------	------------------	------------------------	--------------------------

No data records returned

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name

No data records returned

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

DMR and TRI Multi-Year Loading Report

NPDES ID	Description	2019	2020	2021	2022	2023
PR0022659	DMR Pollutant Loadings (lb/year)	184,302	2,604	7,373	1,626	564
PR0022659	DMR Pollutant Loadings - Load Over Limit (lb/year)	1.31	252	1,606	101	0
PR0022659	DMR Conventional Loadings (lb/year)	--	--	--	1,039	--
PR0022659	DMR Conventional Loadings - Load Over Limit (lb/year)	--	--	--	0	--
PR0022659	DMR Toxic-Weighted Loadings (lb-eq/year)	50.28	103	37.74	54.14	1.38
PR0022659	DMR Toxic-Weighted Loadings - Load Over Limit (lb-eq/year)	0.6565	91.28	30.59	50.54	0

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

EJScreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

Related Reports

EJScreen Community Report

Download Data

Facility 1-mile Radius Facility Census Block Group

Census Block Group ID: 721055205003	US (Percentile)	
	Facility Census Block Group	1-mile Max
Supplemental Indexes		
Count of Indexes At or Above 80th Percentile	6	7
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	10	10
Air Toxics Cancer Risk	36	38
Air Toxics Respiratory Hazard Index	37	40
Toxic Releases to Air	1 99	1 99
Traffic Proximity	1 80	1 90
Lead Paint	0	1 94
Risk Management Plan (RMP) Facility Proximity	1 84	1 90
Hazardous Waste Proximity	61	68
Superfund Proximity	1 99	1 99
Underground Storage Tanks (UST)	1 92	1 93
Wastewater Discharge	1 99	1 99





Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)	
Total Persons	3,090
Population Density	992/sq.mi.
Housing Units in Area	1,108

General Statistics (ACS (American Community Survey))	
Total Persons	2,853
Percent People of Color	100%
Households in Area	718
Households on Public Assistance	63
Persons With Low Income	2,670
Percent With Low Income	94%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.24581
Center Longitude	-66.276853
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	226 (31.39%)
\$15,000 - \$25,000	182 (25.28%)
\$25,000 - \$50,000	252 (35%)
\$50,000 - \$75,000	53 (7.36%)
Greater than \$75,000	7 (.97%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	169 (5%)
Minors 17 years and younger	792 (26%)
Adults 18 years and older	2,299 (74%)
Seniors 65 years and older	277 (9%)

Race Breakdown (U.S. Census) - Persons (%)	
White	2,631 (85%)
African-American	183 (6%)
Hispanic-Origin	3,067 (99%)
Asian/Pacific Islander	6 (0%)
American Indian	9 (0%)
Other/Multiracial	260 (8%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	289 (15.71%)
9th through 12th Grade	95 (5.16%)
High School Diploma	548 (29.78%)
Some College/2-year	411 (22.34%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	241 (13.1%)

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

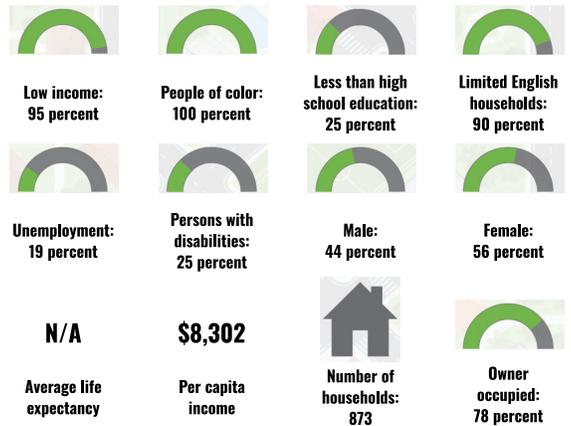
1 mile Ring around the Area
 Population: 3,111
 Area in square miles: 3.43

A3 Landscape



March 18, 2024
 PR-RGRW-04128
 Search Result (point)
 1:2,257
 0 0.03 0.06 0.1 mi
 0 0.04 0.09 0.17 km
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, HERE, Garmin, IGC

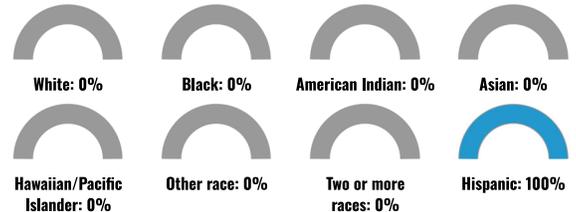
COMMUNITY INFORMATION



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	6%
Spanish	94%
Total Non-English	94%

BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



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.

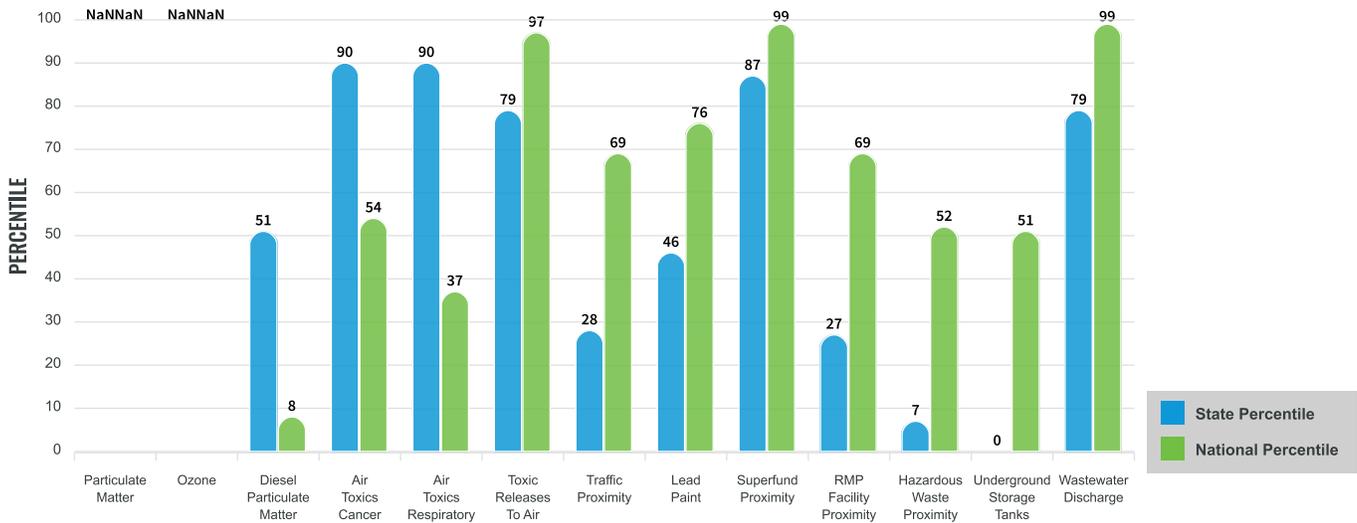
Environmental Justice & Supplemental Indexes

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.

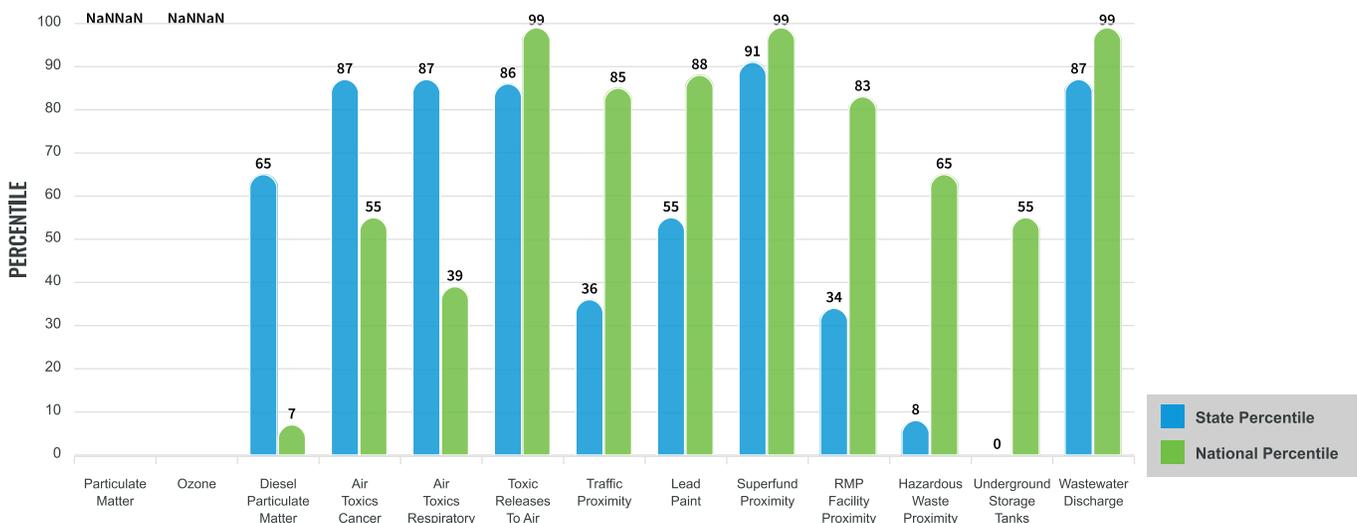
EJ INDEXES FOR THE SELECTED LOCATION



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 around the Area

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	N/A	N/A	N/A	8.08	N/A
Ozone (ppb)	N/A	N/A	N/A	61.6	N/A
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.0333	0.0667	44	0.261	2
Air Toxics Cancer Risk* (lifetime risk per million)	20	20	15	25	5
Air Toxics Respiratory HI*	0.2	0.19	17	0.31	4
Toxic Releases to Air	1,400	4,300	69	4,600	66
Traffic Proximity (daily traffic count/distance to road)	22	180	24	210	25
Lead Paint (% Pre-1960 Housing)	0.075	0.16	43	0.3	31
Superfund Proximity (site count/km distance)	0.16	0.15	79	0.13	81
RMP Facility Proximity (facility count/km distance)	0.087	0.47	24	0.43	24
Hazardous Waste Proximity (facility count/km distance)	0.071	0.76	6	1.9	14
Underground Storage Tanks (count/km ²)	0.15	1.7	0	3.9	30
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.047	2.3	68	22	78
SOCIOECONOMIC INDICATORS					
Demographic Index	98%	83%	92	35%	99
Supplemental Demographic Index	58%	43%	87	14%	99
People of Color	100%	96%	31	39%	98
Low Income	95%	70%	91	31%	99
Unemployment Rate	19%	15%	69	6%	95
Limited English Speaking Households	90%	67%	94	5%	99
Less Than High School Education	25%	21%	61	12%	87
Under Age 5	4%	4%	66	6%	44
Over Age 64	17%	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	4
Air Pollution	0
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	3
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

Report for 1 mile Ring around the Area

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	23.5%	21.6%	60	13.4%	93

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	43%	32%	73	14%	96
Lack of Health Insurance	3%	7%	12	9%	21
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

Report for 1 mile Ring around the Area

APPENDIX D
Endangered Species

From: [Caribbean ES, FW4](#)
To: [environmentcdbg](#)
Subject: Re: [EXTERNAL] USFWS Endangered Species Concurrence Consultation_CDBG-DR_PR-RGRW-04128
Date: Friday, August 16, 2024 8:26:12 AM
Attachments: [image003.png](#)

Good Morning

The Service acknowledge receipt the Dkey NLAA Concurrence letter (Project code: 2024-0066306) for the project named CDBG-DR PR-RGRW-04128 Finca El Agricultor LLC, Barranquitas. No further consultation is required. Keep this email for your records.

Thanks

Caribbean Ecological Services Field Office
(786) 244-0081
caribbean_es@fws.gov

For project evaluations, please visit our [Consultation Guidelines website](#).

From: environmentcdbg <environmentcdbg@vivienda.pr.gov>
Sent: Monday, August 5, 2024 10:25 AM
To: Caribbean ES, FW4 <Caribbean_ES@fws.gov>; Mena, Lourdes <Lourdes_Mena@fws.gov>
Subject: [EXTERNAL] USFWS Endangered Species Concurrence Consultation_CDBG-DR_PR-RGRW-04128

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To whom it may concern:

In order to complete the environmental review process regarding the case **PR-RGRW-04128** for the CDBG-DR Re-Grow PR Urban-Rural Agriculture Program, we are requesting USFWS concurrence with the determinations included in the attached letter.

We look forward for your response in order to move forward our environmental review process.

Sincerely,

Permits and Environmental Compliance Division
Disaster Recovery Office
environmentcdbg@vivienda.pr.gov | 787.274.2527

Visit us: recuperacion.pr.gov
Contact us: infocdbg@vivienda.pr.gov

DEPARTAMENTO DE LA
VIVIENDA



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August 2, 2024

Lourdes Mena
Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
Office Park I, Suite 303
State Road #2 Km 156.5
Mayagüez, Puerto Rico 00680
Email: Caribbean_es@fws.gov; Lourdes.Mena@fws.gov

**RE: Puerto Rico Department of Housing / Re-Grow Program
PR-RGRW-04128 – Finca El Agricultor LLC
Endangered Species Concurrence for NLAA Determination**

Dear Ms. Mena:

The Puerto Rico Department of Housing (PRDOH) is requesting an informal consultation under Section 7 (a)(2) of the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and 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 PR-RGRW-04128, located at PR-152 Road Km 8.9 Int., Quebradillas Ward, Barranquitas, PR 00794 (Parcel ID# 221-036-167-25).

The project is part of the Re-Grow Puerto Rico Urban-Rural Agriculture Program (RGRW) that aims to increase agricultural capacity while promoting and increasing food security island wide. This Program will enhance and expand agricultural production related to economic revitalization and sustainable development activities.

The proposed project, PR-RGRW-04128, has two scopes of work (SOW). SOW #1 is for the installation of a vertical squash plantation and irrigation system at coordinates 18.239860, -66.280315. The vertical plantation system is planned to be constructed with fencing materials, such as metal posts and wood posts barbed with steel and metal wire. The posts will be installed at an approximate depth of 3 feet. The irrigation system to be installed at the squash plantation area, consists of UV polyethylene and vinyl aboveground tubing. The water for the irrigation of the squash plantation will come by gravity from a 1,000-gallon water cistern and the Dosatron system to provide water with fertilizer to each of the plants. SOW # 2 is for the purchase of a mini excavator and installation of a water cistern and the Dosatron injector system on an existing concrete pad of approximately 10 feet x 6 feet, located at coordinates 18.239929, -66.279998. The mini excavator will be used for digging the holes and clearing vegetation for

preparation of the squash plantation area. The mini excavator will be stored at coordinates 18.239929, -66.279998 next to the water cistern. The applicant plans in the future to construct a warehouse with metal roof and walls for the storage of the excavator. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a "Non-PRASA" community and the water service is provided via a communal aqueduct that serves the residents of the area. The proposed project area is located on a previously disturbed area that currently appears mowed and maintained. Some plantain trees can be seen in the proposed project area. Surrounding landscape includes undulating pastureland and farmland within the parcel and north and south of the parcel with residential areas to the east and west.

The National Wetlands Inventory indicated that a riverine is located within the proposed project area along the northern border. The project does not anticipate any effects to any wetlands.

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

Name of the species	Threatened/Endangered/Candidate
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Endangered
Critical Habitat	
There are no critical habitats at this location.	

Based on site review and site photos, no suitable habitat was found within the proposed project area for the Puerto Rican Boa.

The Puerto Rican Boa habitat requirements per the U.S. Fish and Wildlife Service are as follows: "The Puerto Rican boa is considered a habitat generalist and tolerates a wide variety of habitat types (terrestrial and arboreal). These include: rocky areas and haystack hills, trees and branches, rotting stumps, caves (entrances and inside), plantations, various types of forested areas such as karst and mangrove forests, forested urban and rural areas, and along streams and road edges. Cave ecosystems and their surrounding forests are considered particularly important because of the availability of such ecological resources such as prey, shelter, thermal gradients, and mates for reproduction."

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:

Name of the species	Effect Determination	Conservation Measures to be implemented
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Not Likely to Adversely Affect (NLAA)	USFWS Puerto Rican Boa Conservation Measures 2024

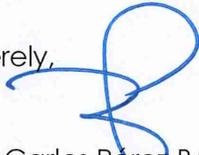
Given the current land use and frequent disturbance with the cultivation minor fruits and plantain production, and lack of sightings of the listed species within the vicinity, we have determined that the project is "Not Likely to Adversely Affect" the listed species provided the attached Conservation Measures are implemented as part of the proposed project. The automated informal consultation process was completed on July 18th through the USFWS Information for Planning and Consultation website (<https://ipac.ecosphere.fws.gov/>).

In order to complete the informal consultation process, we are requesting your concurrence for the NLAA determinations included in this letter. Attached to this letter, we are including the documents used to reach our effect determinations for the listed species.

For any questions or clarifications, please do not hesitate to contact us at the information below.

Thank you in advance for your consideration of this issue.

Sincerely,



Juan Carlos Pérez Bofill, PE, MEng.
Director – Disaster Recovery, CDBG-DR Program
environmentcdbg@vivienda.pr.gov | 787.274.2527 ext. 4320

Attachments:

Appendix A:

- Figure 1 – Project Location Map
- Figure 2 – Area of Potential Effect Map
- Figure 3 – Wetland Map
- Figure 4 – Endangered Species Map
- Figure 5 – Critical Habitats Map
- Figure 6 – Farmland Protection Map

Appendix B: Species List Caribbean Ecological Services and Consistency Letter SOW-1

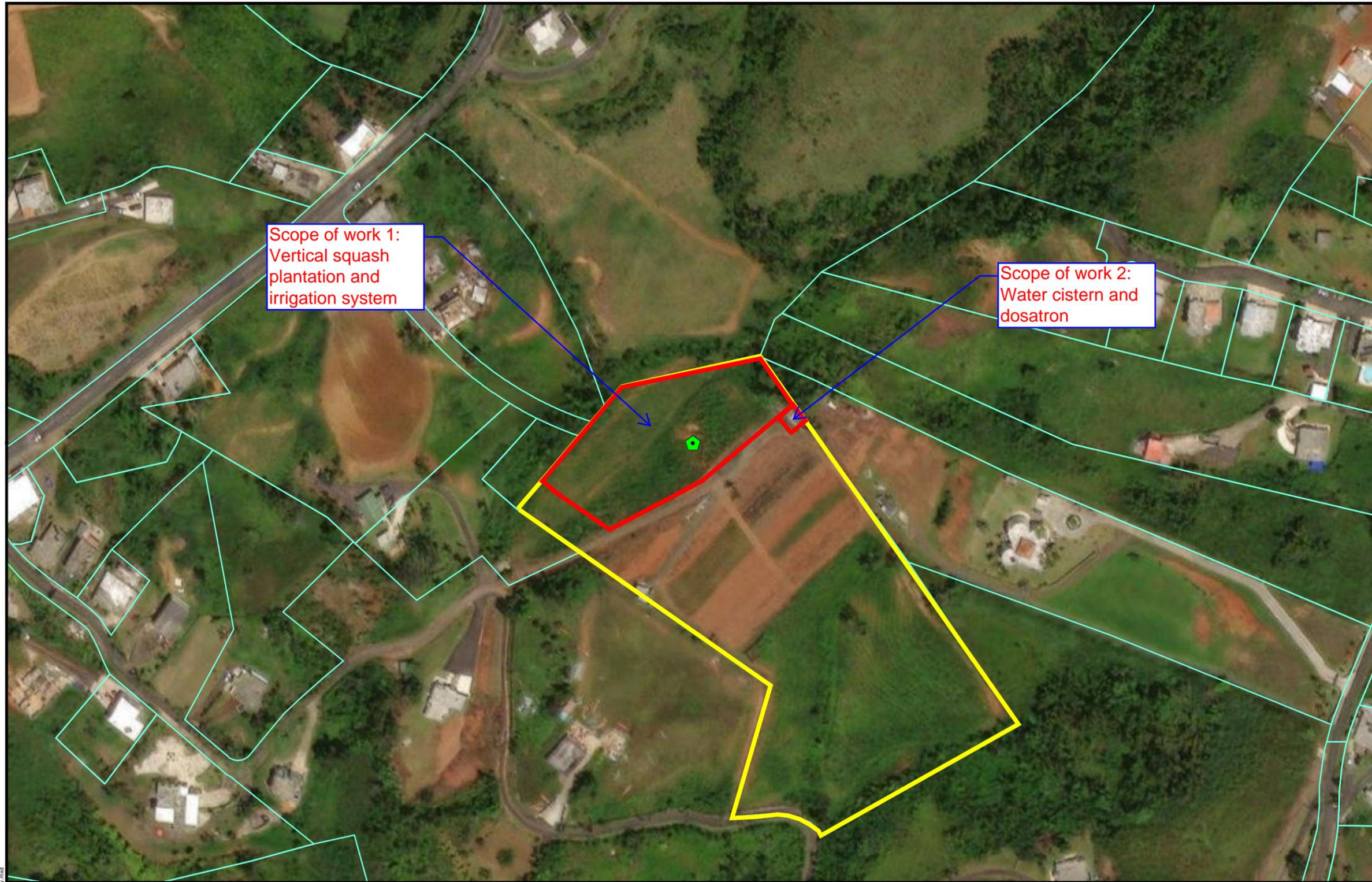
Appendix B: Species List Caribbean Ecological Services and Consistency Letter SOW-2

Appendix D: Site Photos

Appendix E: USFWS Puerto Rican Boa Conservation Measures 2024

C: Angel G. López-Guzmán, MSEM
Deputy Director
Permits and Environmental Compliance Division

Appendix A: Figures



- Legend**
-  Project Parcel
 -  Parcels
 -  Area of Potential Effect
 -  Project Parcel Boundaries

PUERTO RICO



PROJECT LOCATION

APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

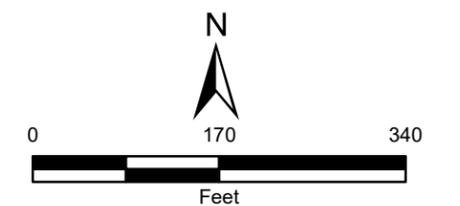
Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315



Source: CRIM
<https://catastro.crimpr.net/cdprpc/>

Author: TG Date: 2/29/2024

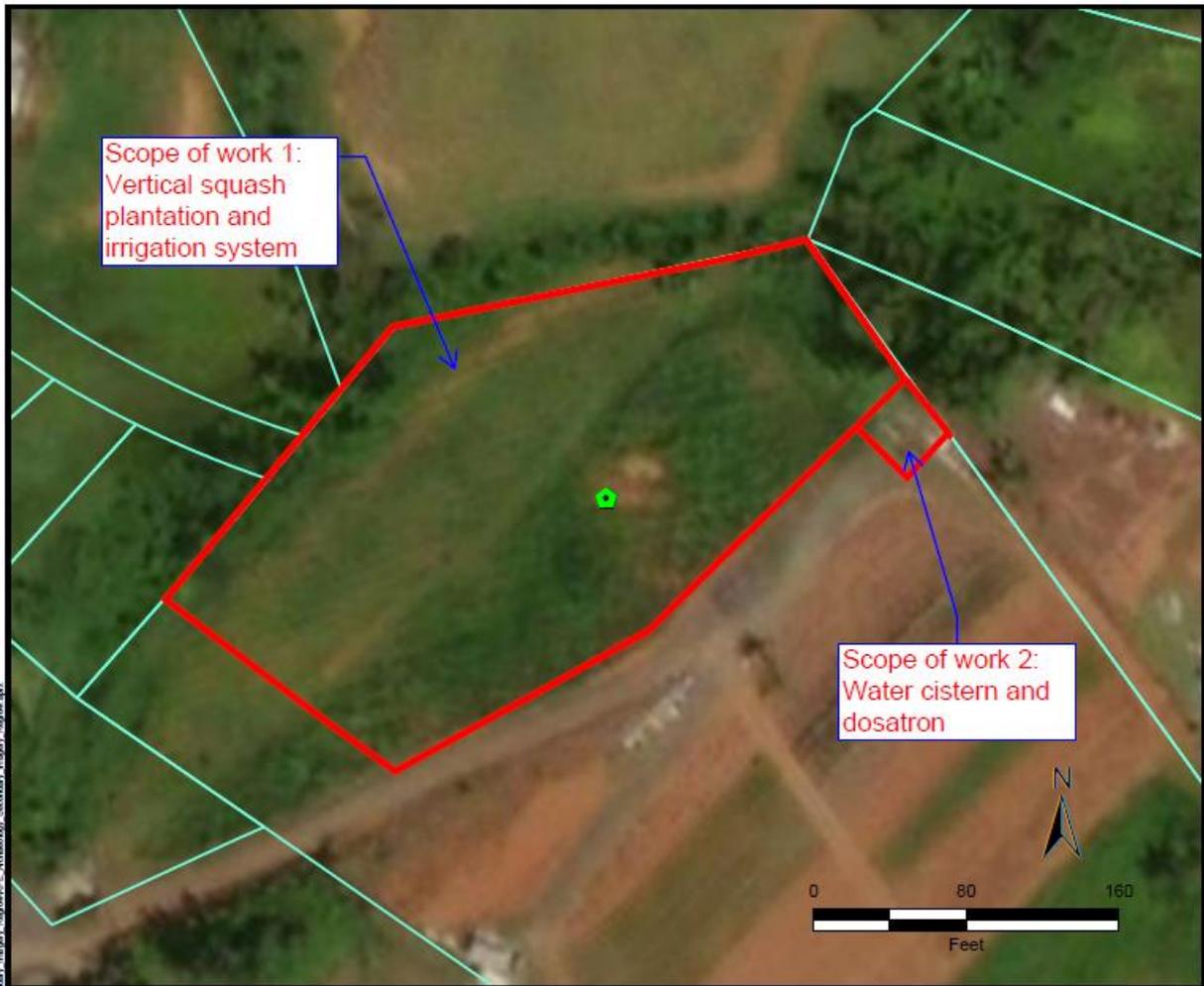


Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas

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



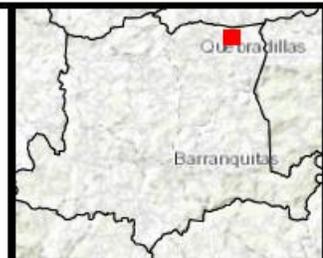
Source: CRIM

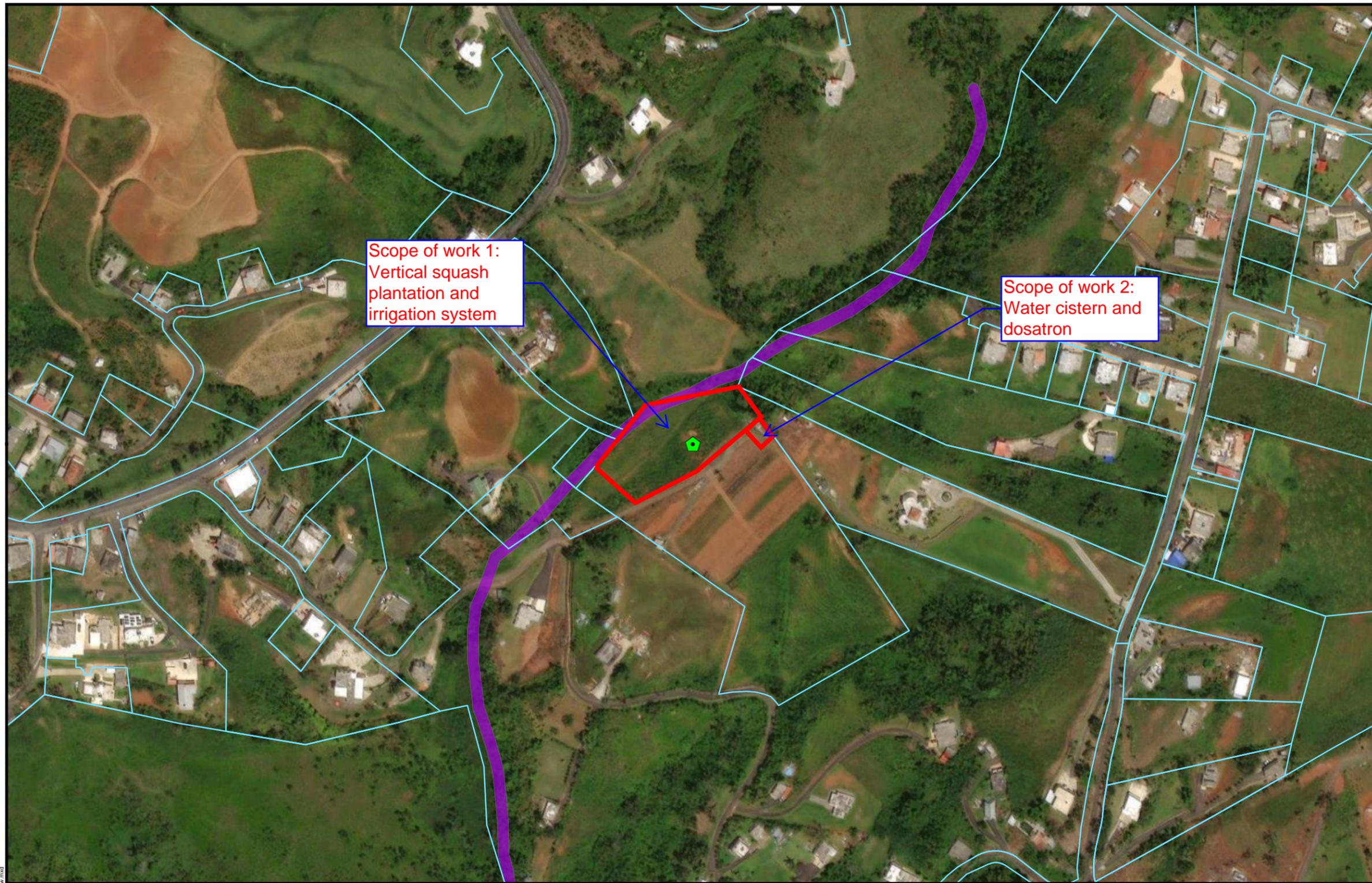
Author: TG

Date: 11/29/2023

Legend

-  Tier 2 Site
-  Area of Potential Effect
-  Parcelario





Legend

- Project Parcel
- Parcels
- WETLAND TYPE**
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Area of Potential Effect

PUERTO RICO

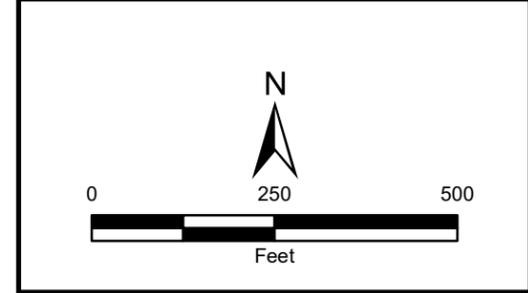


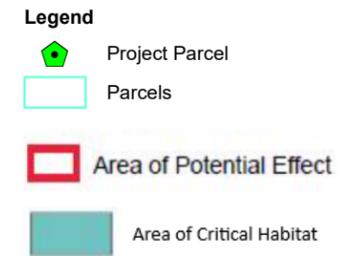
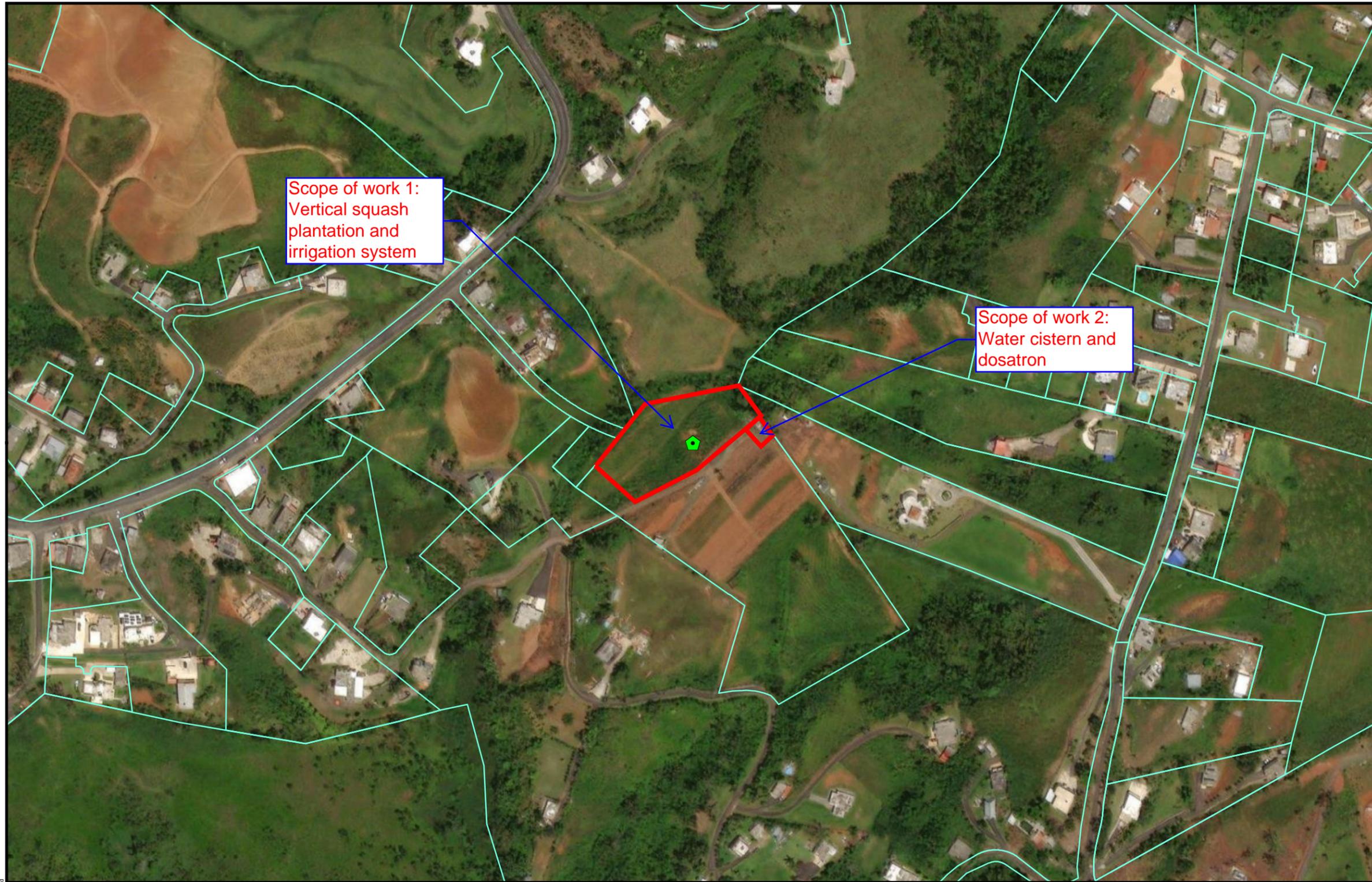
WETLANDS
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315



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





PUERTO RICO



TETRA TECH

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

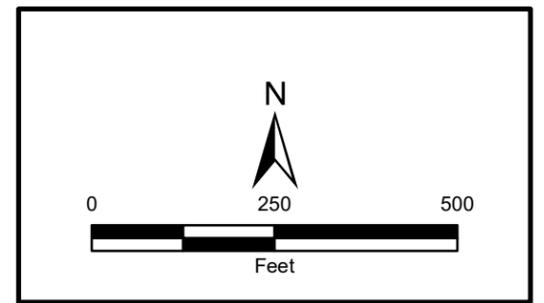
Author: TG Date: 3/12/2024

ENDANGERED SPECIES ACT
APPLICANT ID: PR-RGRW-04128

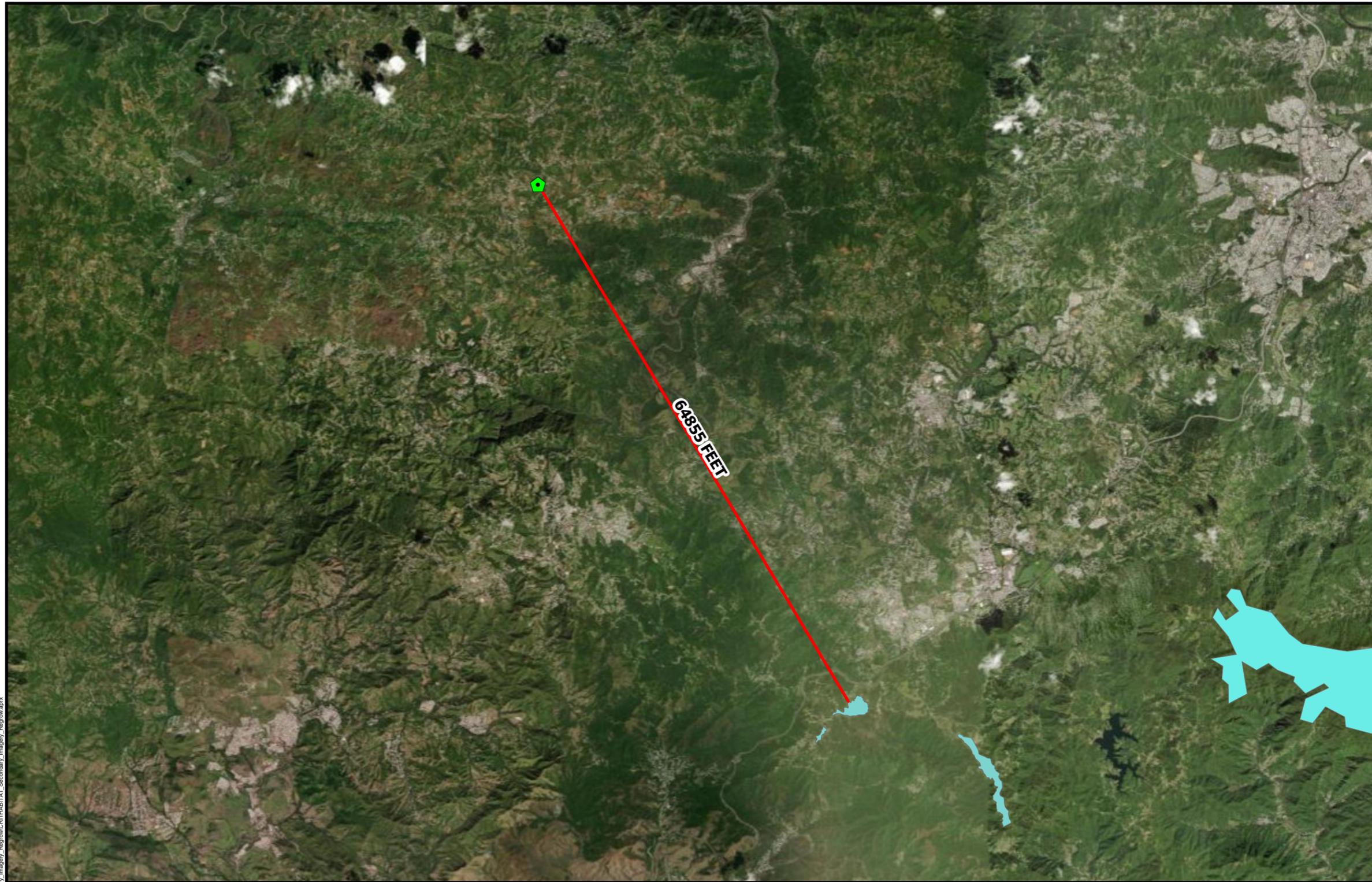
ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691

Name of Development: Finca El Agricultor LLC

Parcel Coordinates: 18.239860, -66.280315



File Path: Z:\data\USFWS\PR\ESA_Sec\Secondary_Imagery_Regrow.mxd



- Legend**
-  Project Parcel
 - Common Name**
 -  Elfin-woods warbler
 -  Golden coqui
 -  No common name

Distance to Nearest Critical Habitat:
64855 Feet

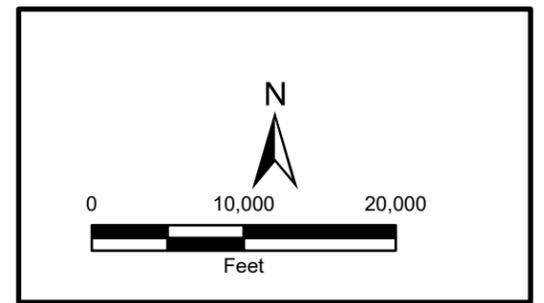
PUERTO RICO



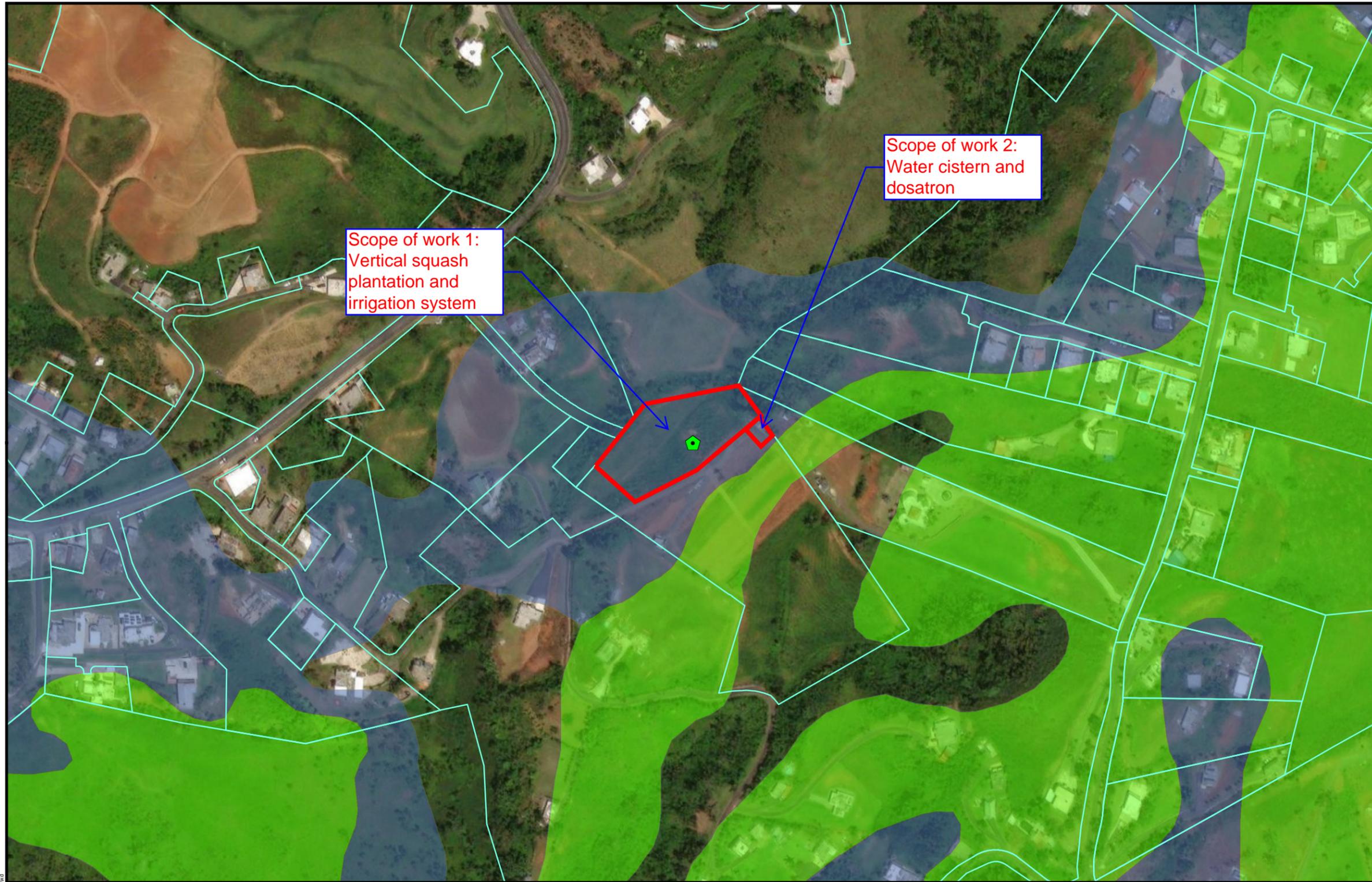

Source: U.S. FISH & WILDLIFE SERVICE
<https://ecos.fws.gov>

Author: TG Date: 11/3/2023

CRITICAL HABITATS
APPLICANT ID: PR-RGRW-04128
ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315



File Path: Z:\data\USFWS\PR\Regrow\CRITICAL_HABITATS_Secondary_Imagery_Regrow\CRITICAL_HABITATS_Secondary_Imagery_Regrow.aprx



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
- Area of Potential Effect

PUERTO RICO



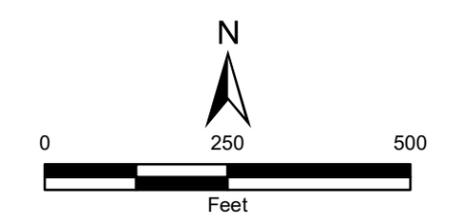
File Path: Z:\data\USPRT\Farmland\Secondary_Imagery_Regrow.mxd



Source: USDA
<https://websoilsurvey.sc.egov.usda.gov>
 Author: TG Date: 2/29/2024

FARMLAND PROTECTION
APPLICANT ID: PR-RGRW-04128

ADDRESS: Bo. Quebradillas CARR 152 K8 H9 Int., Barranquitas, PR 00794-9691
 Name of Development: Finca El Agricultor LLC
 Parcel Coordinates: 18.239860, -66.280315



Appendix B:
Species List Caribbean Ecological Services and Consistency Letter
SOW-1



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (939) 320-3135 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:

07/18/2024 14:12:55 UTC

Project Code: 2024-0066306

Project Name: PR-RGRW-04128 SOW #1

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

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

The purpose of the Endangered Species Act (Act) is to provide a means whereby threatened, and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect those species and/or their designated critical habitat.

Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action". The enclosed species list provides information to assist with the U.S. Fish and Wildlife Service (Service) consultation process under section 7 of the Act. However, **the enclosed species list does not complete the required consultation process.** The species list identifies threatened, endangered, proposed and candidate species, as well as proposed and designated critical habitats, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. A discussion between the Federal agency and the Service should include what types of listed species may occur in the proposed action area and what effect the proposed action may have on those species. This process initiates informal consultation.

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

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

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

When a federal agency, after discussions with the Service, determines that the proposed action is not likely to adversely affect any listed species, or adversely modify any designated critical habitat, and the Service concurs, the informal consultation is complete, and the proposed project moves ahead. If the proposed action is suspected to affect a listed species or modify designated critical habitat, the Federal agency may then prepare a Biological Assessment (B.A.) to assist in its determination of the project's effects on species and their habitat. However, a B.A. is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a B.A. where the agency provides the Service with an evaluation on the likely effects of the action to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a B.A. are described at 50 CFR 402.12.

If a federal agency determines, based on its B.A. or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to further consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation process. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species.

This list is provided pursuant to Section 7 of the Endangered Species Act and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action". Please use this list to determine whether your project requires consultation and to make your effects determination. For more guidance, use the Guideline for Consultation under Section 7 of the Endangered Species Act with the Caribbean Ecological Services Field Office by clicking [here](#).

This species list is provided by:

Caribbean Ecological Services Field Office

caribbean_es@fws.gov

Post Office Box 491

Boqueron, PR 00622-0491

(786) 244-0081

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

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

This species list is provided by:

Caribbean Ecological Services Field Office

Post Office Box 491

Boqueron, PR 00622-0491

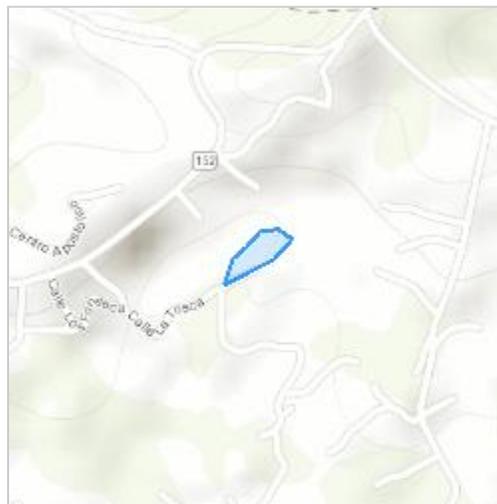
(939) 320-3135

PROJECT SUMMARY

Project Code: 2024-0066306
Project Name: PR-RGRW-04128 SOW #1
Project Type: Restoration / Enhancement - Agricultural
Project Description: The proposed project is for the installation of a vertical squash plantation and irrigation system at coordinates 18.239860, -66.280315. The vertical plantation system is planned to be constructed with fencing materials such as metal post and wood post barbed with steel and metal wire. The posts will be installed at an approximate depth of 3 feet. The irrigation system to be installed at the squash plantation area consists of UV polyethylene and vinyl aboveground tubing. The water for the irrigation of the squash plantation will come by gravity from a 1,00 gallons water cistern and the Dosatron system to provide water with fertilizer to each of the plants. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.23982415,-66.28052351432243,14z>



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 Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

REPTILES

NAME	STATUS
<p>Puerto Rican Boa <i>Chilabothrus inornatus</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/Q3ITAWL5ABEXZDDGXQMUIQKDBE/documents/generated/7159.pdf</p>	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 Act¹ and the Migratory Bird Treaty Act².

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

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

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

MIGRATORY BIRDS

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

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

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

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

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (939) 320-3135 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:

07/18/2024 14:17:54 UTC

Project code: 2024-0066306

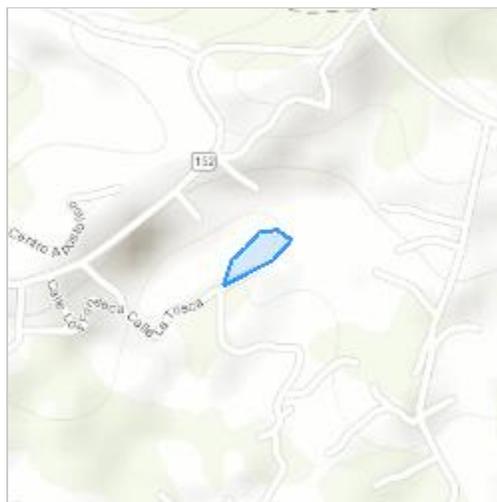
Project Name: PR-RGRW-04128 SOW #1

Subject: Concurrence letter for the project named 'PR-RGRW-04128 SOW #1' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On July 18, 2024, Shelby McDowell used the Caribbean DKey; dated April 03, 2024, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'PR-RGRW-04128 SOW #1'. The project is located in Barranquitas County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.23982415,-66.28052351432243,14z>



The following description was provided for the project 'PR-RGRW-04128 SOW #1':

The proposed project is for the installation of a vertical squash plantation and irrigation system at coordinates 18.239860, -66.280315. The vertical plantation system is planned to be constructed with fencing materials such as metal post and wood post barbed with steel and metal wire. The posts will be installed at an approximate depth of 3 feet. The irrigation system to be installed at the squash plantation area consists of UV polyethylene and vinyl aboveground tubing. The water for the irrigation of the squash plantation will come by gravity from a 1,00 gallons water cistern and the Dosatron system to provide water with fertilizer to each of the plants. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

Based on your answers and the assistance of the Service’s Caribbean DKey, you made the following effect determination(s) for the proposed Action:

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

Based on the answers provided in IPaC, the proposed project is consistent with a “may affect but is not likely to adversely affect” (NLAA) for the species listed above because your project impacts to the species will be avoided or minimized using the **Conservation Measures** you agreed to implement. These conservation measures must be implemented during the project development to ensure compliance with Section 7(a)(2) of the ESA.

No further action is required for the species listed above. However, be aware that reinitiation of consultation may be necessary if later modifications are made to the project so that it no longer meets the criteria or outcome described above, or if new information reveals effects of the action that could affect listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed.

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for federally listed species in the Caribbean. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the Caribbean Ecological Services Field Office to apply local knowledge to evaluate the Action, as we may identify a small subset of actions having unanticipated impacts. In such instances, the Caribbean Ecological Services Field Office may request additional information to verify the effects determination reached through the DKey.

Note: Projects located within the range of the Puerto Rican boa or the Virgin Islands tree boa might encounter these species during project activities. **This letter does not provide take to handle or move these species.** If relocation of the species is needed, please contact either the Puerto Rico Department of Natural Resources (DNER) at 787-724-5700, 787-230-5550, or 787-771-1124 for projects in Puerto Rico, or the Virgin Islands Department of Planning and

Natural Resources, Division of Fish and Wildlife (DFW) at 340-775-6762 for projects in the Virgin Islands. Otherwise, contact the Caribbean Ecological Services Field Office (caribbean_es@fws.gov) to determine whether the consultation needs to be reinitiated.

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

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

Action Description

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

1. Name

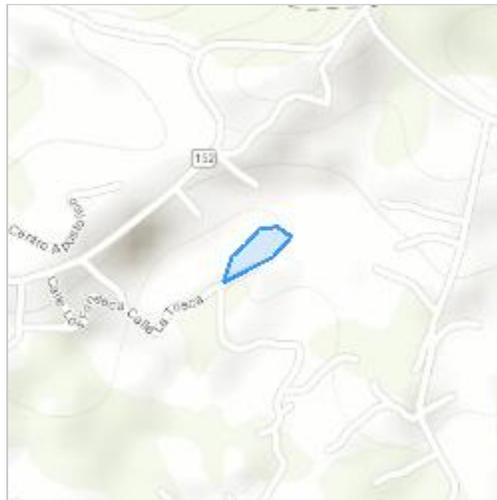
PR-RGRW-04128 SOW #1

2. Description

The following description was provided for the project 'PR-RGRW-04128 SOW #1':

The proposed project is for the installation of a vertical squash plantation and irrigation system at coordinates 18.239860, -66.280315. The vertical plantation system is planned to be constructed with fencing materials such as metal post and wood post barbed with steel and metal wire. The posts will be installed at an approximate depth of 3 feet. The irrigation system to be installed at the squash plantation area consists of UV polyethylene and vinyl aboveground tubing. The water for the irrigation of the squash plantation will come by gravity from a 1,00 gallons water cistern and the Dosatron system to provide water with fertilizer to each of the plants. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.23982415,-66.28052351432243,14z>



QUALIFICATION INTERVIEW

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

No

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

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

No

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

No

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

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

No

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

No

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

No

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

No

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

No

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

No

10. Is the proposed project adjacent or within a forested area?

Note: Examples of immediately adjacent to forested areas are rock walls and haystack hills (“mogotes”), wet montane forest, lowland wet forest, remnant coastal, mangrove forest, damp and dry limestone karst forests, pastureland with patches of exotic trees.

No

11. Is the proposed project an existing facility or the expansion of an existing facility within the footprint of the already developed area?

Yes

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

Automatically answered

Yes

13. Will the proposed project implement the U.S. Fish and Wildlife [Puerto Rican boa Conservation Measures](#)?

Yes

14. Are you the Federal agency or designated non-federal representative for the proposed action?

Yes

IPAC USER CONTACT INFORMATION

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

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

Appendix C:
Species List Caribbean Ecological Services and Consistency Letter
SOW-2



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (939) 320-3135 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:

07/18/2024 14:32:08 UTC

Project Code: 2024-0066310

Project Name: PR-RGRW-04128 SOW #2

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.

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<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.

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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.

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Attachment(s):

- Official Species List
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(939) 320-3135

PROJECT SUMMARY

Project Code: 2024-0066310

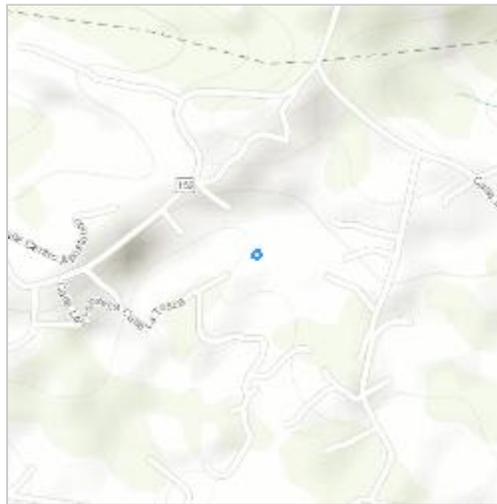
Project Name: PR-RGRW-04128 SOW #2

Project Type: Restoration / Enhancement - Agricultural

Project Description: The proposed project is for the purchase of a mini excavator and installation of a water cistern and the Dosatron injector system on an existing concrete pad of approximately 10 feet x 6 feet located at coordinates 18.239929, -66.279998. The mini excavator will be used for digging the holes and clearing vegetation for preparation of the squash plantation area. The mini excavator will be stored at coordinates 18.239929, -66.279998 next to the water cistern. Applicant plans in the future to construct a warehouse with metal roof and walls for the storage of the excavator. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.23994645,-66.27997116969824,14z>



Counties: Barranquitas County, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

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

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

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

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/HSV64FIS7JD3VBFHN6PDKSTEFA/documents/generated/7159.pdf	Endangered

CRITICAL HABITATS

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

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

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

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

MIGRATORY BIRDS

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

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

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

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

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

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

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (939) 320-3135 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:

07/18/2024 14:35:12 UTC

Project code: 2024-0066310

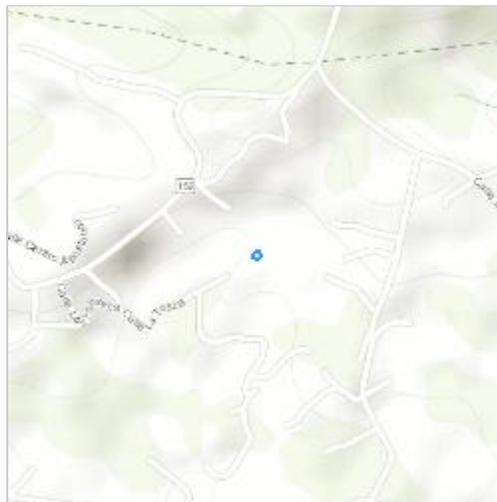
Project Name: PR-RGRW-04128 SOW #2

Subject: Concurrence letter for the project named 'PR-RGRW-04128 SOW #2' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On July 18, 2024, Shelby McDowell used the Caribbean DKey; dated April 03, 2024, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'PR-RGRW-04128 SOW #2'. The project is located in Barranquitas County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.23994645,-66.27997116969824,14z>



The following description was provided for the project 'PR-RGRW-04128 SOW #2':

The proposed project is for the purchase of a mini excavator and installation of a water cistern and the Dosatron injector system on an existing concrete pad of approximately 10 feet x 6 feet located at coordinates 18.239929, -66.279998. The mini excavator will be used for digging the holes and clearing vegetation for preparation of the squash plantation area. The mini excavator will be stored at coordinates 18.239929, -66.279998 next to the water cistern. Applicant plans in the future to construct a warehouse with metal roof and walls for the storage of the excavator. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

Based on your answers and the assistance of the Service’s Caribbean DKey, you made the following effect determination(s) for the proposed Action:

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

Based on the answers provided in IPaC, the proposed project is consistent with a “may affect but is not likely to adversely affect” (NLAA) for the species listed above because your project impacts to the species will be avoided or minimized using the **Conservation Measures** you agreed to implement. These conservation measures must be implemented during the project development to ensure compliance with Section 7(a)(2) of the ESA.

No further action is required for the species listed above. However, be aware that reinitiation of consultation may be necessary if later modifications are made to the project so that it no longer meets the criteria or outcome described above, or if new information reveals effects of the action that could affect listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed.

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for federally listed species in the Caribbean. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the Caribbean Ecological Services Field Office to apply local knowledge to evaluate the Action, as we may identify a small subset of actions having unanticipated impacts. In such instances, the Caribbean Ecological Services Field Office may request additional information to verify the effects determination reached through the DKey.

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

Virgin Islands. Otherwise, contact the Caribbean Ecological Services Field Office (caribbean_es@fws.gov) to determine whether the consultation needs to be reinitiated.

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

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

Action Description

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

1. Name

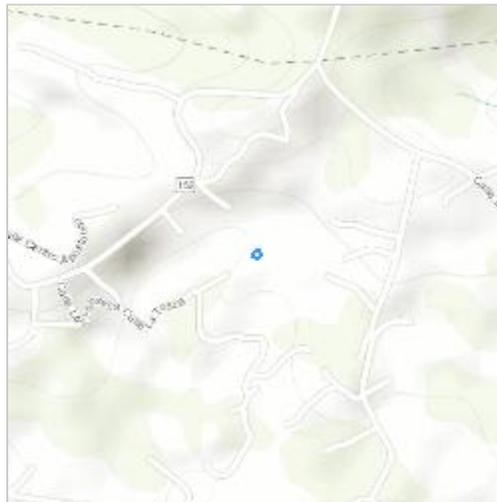
PR-RGRW-04128 SOW #2

2. Description

The following description was provided for the project 'PR-RGRW-04128 SOW #2':

The proposed project is for the purchase of a mini excavator and installation of a water cistern and the Dosatron injector system on an existing concrete pad of approximately 10 feet x 6 feet located at coordinates 18.239929, -66.279998. The mini excavator will be used for digging the holes and clearing vegetation for preparation of the squash plantation area. The mini excavator will be stored at coordinates 18.239929, -66.279998 next to the water cistern. Applicant plans in the future to construct a warehouse with metal roof and walls for the storage of the excavator. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantain production. The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.23994645,-66.27997116969824,14z>



QUALIFICATION INTERVIEW

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

No

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

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

No

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

No

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

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

No

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

No

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

No

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

No

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

No

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

No

10. Is the proposed project adjacent or within a forested area?

Note: Examples of immediately adjacent to forested areas are rock walls and haystack hills (“mogotes”), wet montane forest, lowland wet forest, remnant coastal, mangrove forest, damp and dry limestone karst forests, pastureland with patches of exotic trees.

No

11. Is the proposed project an existing facility or the expansion of an existing facility within the footprint of the already developed area?

Yes

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

Automatically answered

Yes

13. Will the proposed project implement the U.S. Fish and Wildlife [Puerto Rican boa Conservation Measures](#)?

Yes

14. Are you the Federal agency or designated non-federal representative for the proposed action?

Yes

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

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

Appendix D:
Site Photos

Front of Structure

Photo Direction: East



Facing Away From Front

Photo Direction: West



Side #1 of Structure

Photo Direction: Southwest



Facing Away From Side #1

Photo Direction: Northeast



Back of Structure

Photo Direction: South



Facing Away From Back

Photo Direction: North



Side #2 of Structure

Photo Direction: East



Facing Away From Side #2

Photo Direction: West



Streetscape #1

Photo Direction: West



Streetscape #2

Photo Direction: East



Address

Photo Direction: East



Outbuildings

Photo Description: Storage

Photo Direction: West



Structural Details

Photo Description: Architectural details

Photo Direction: South



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: South



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: North



Structural Details

Photo Description: Architectural details

Photo Direction: Southwest



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: West



Structural Details

Photo Description: Architectural details

Photo Direction: Northeast



Structural Details

Photo Description: Architectural details

Photo Direction: West



Structural Details

Photo Description: Architectural details

Photo Direction: East



Structural Details

Photo Description: Architectural details

Photo Direction: South



Structural Details

Photo Description: Architectural details

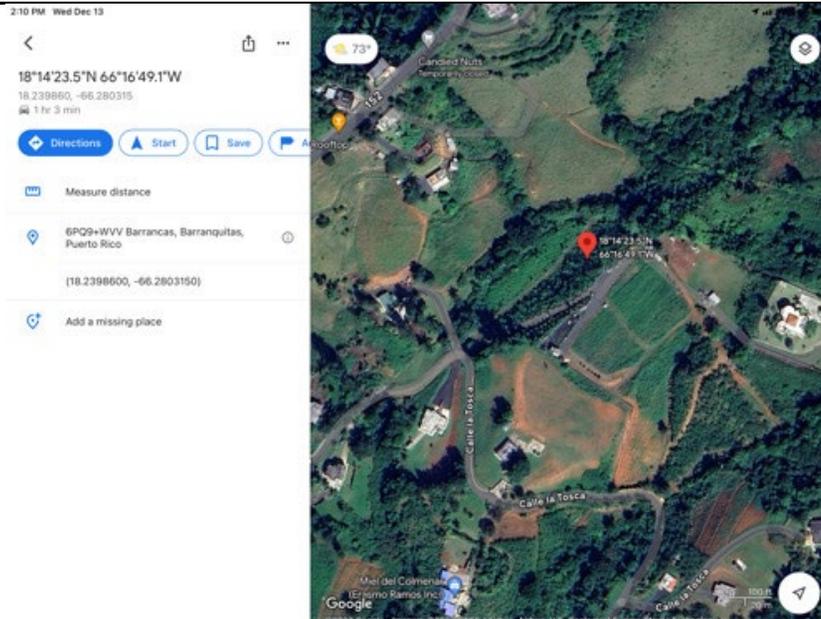
Photo Direction: Southwest



Structural Details

Photo Description: Architectural details

Photo Direction: North



Electricity Connected

Photo Description: Power connection

Photo Direction: East



Water Connected

Photo Description: Water service connected

Photo Direction: Northeast



55-Gallon Drums

Photo Description: 55 gallons drum

Photo Direction: Northeast



Aboveground Storage Tanks

Photo Description: Water cistern

Photo Direction: North



Aboveground Storage Tanks

Photo Description: Water cistern

Photo Direction: North



Warehouse Use

Photo Description: Storage

Photo Direction: West



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: West



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: West



Scope Of Work

Photo Description: Scope of work 1: Vertical Squash Plantation and irrigation system

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: Northwest



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: North



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: East



Scope Of Work

Photo Description: Scope of work 2: Installation of a water cistern and a dosatron

Photo Direction: Northeast

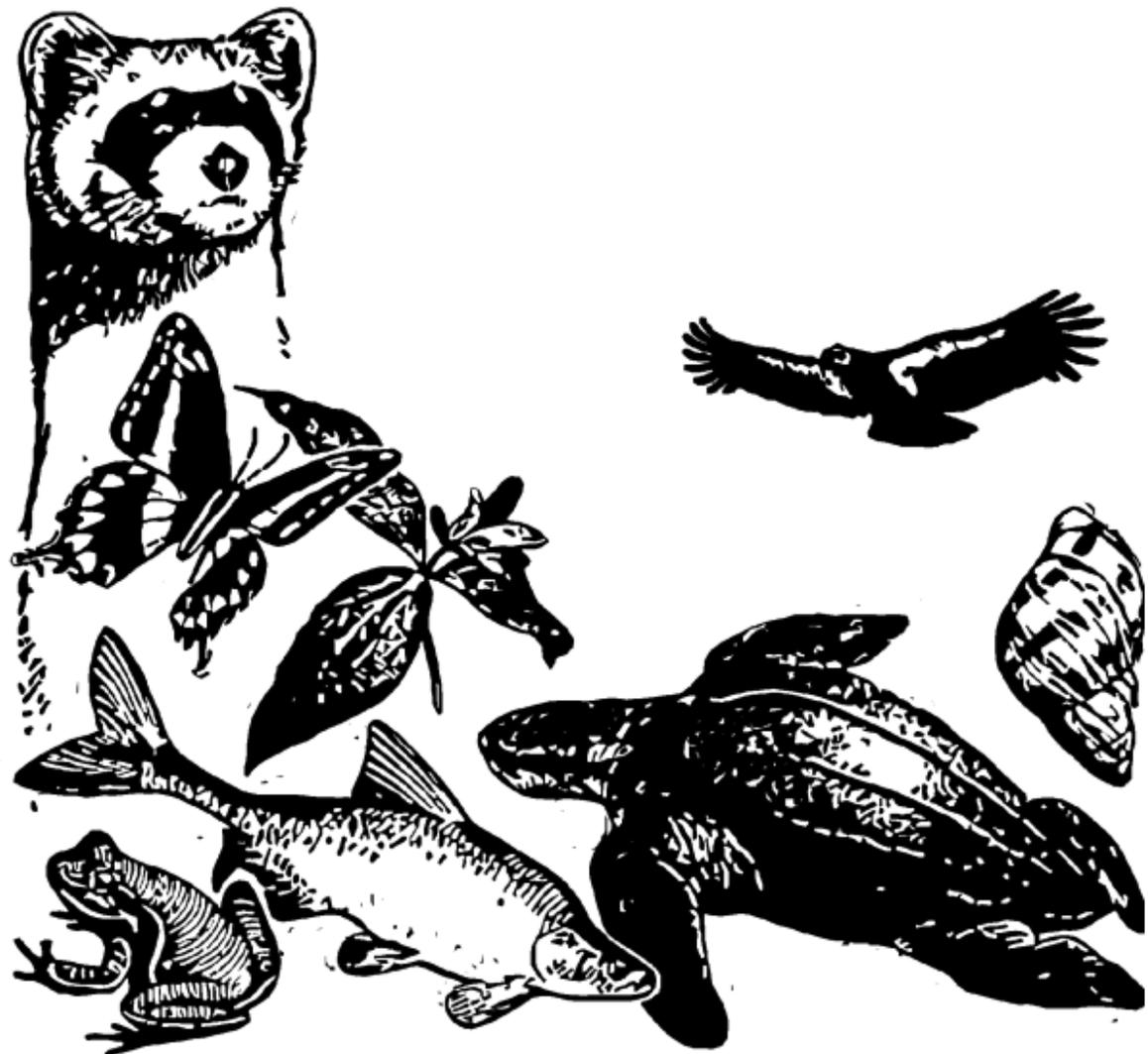


Appendix E:
USFWS Puerto Rican Boa Conservation Measures 2024

Caribbean ES Puerto Rican Boa

Puerto Rican Boa

Generated February 16, 2024 10:40 PM UTC, IPaC v6.104.2-rc1



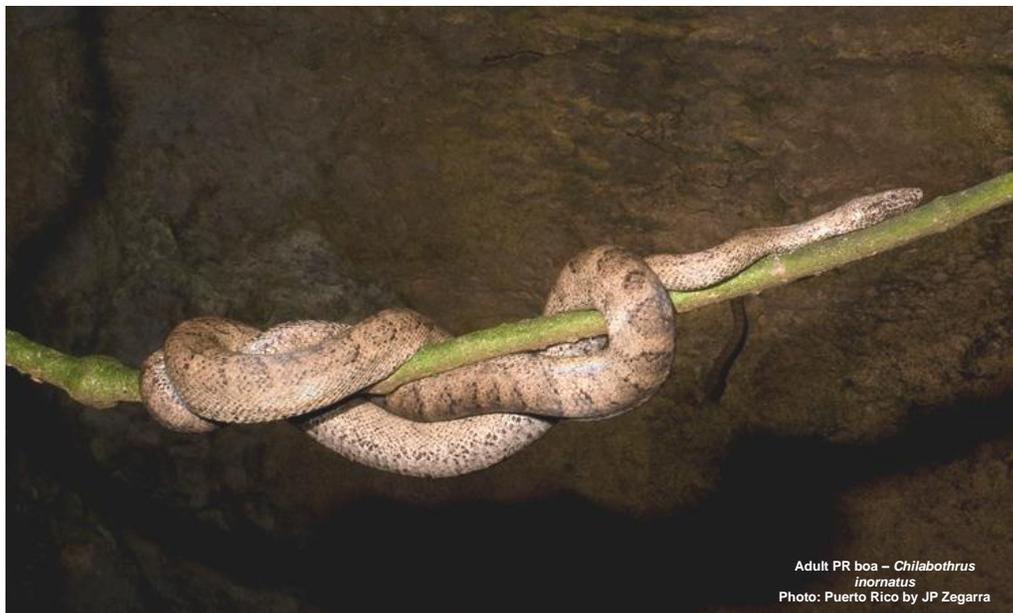


U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

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 federally 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 PR 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 such as roadsides or houses, especially if near their habitat in rural areas. The PR 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 project 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. If a PR boa is found within any of the working or construction areas, activities should stop at that area and information recorded (see #5). **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 that 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.
5. 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.

6. If a PR boa is captured by PRDNER personnel, record the name of that person and information on where the PR boa will be taken. This information should be reported to the Service.
7. 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 #4). If not possible, the animal should be left alone until it leaves the vehicle on its own.
8. 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.
9. If a dead PR boa is found, immediately cease all work in that area and record the information accordingly (see #5). 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 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.
10. 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:

- José Cruz-Burgos, Endangered Species Program Coordinator
 - Email: jose_cruz-burgos@fws.gov
 - Office phone (305) 304-1386
- Jan Zegarra, Fish and Wildlife Biologist
 - Email: jan_zegarra@fws.gov
 - Office phone (786) 933-1451

APPENDIX E

Section 106 Consultation



GOVERNMENT OF PUERTO RICO
STATE HISTORIC PRESERVATION OFFICE

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

March 4, 2024

Lauren Bair Poche

HORNE

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

SHPO: CF-02-29-24-02 PR-RGRW-04128 – FINCA EL AGRICULTOR LLC – BARRIO
QUEBRADILLAS CARRETERA 152 K8 H9 INT, BARRANQUITAS PUERTO RICO 00794

Ms. Poche,

Our Office has received and reviewed the above referenced project in accordance with 54 USC 306108 (commonly known as Section 106 of the *National Historic Preservation Act, as amended*) and 36 CFR Part 800: *Protection of Historic Properties* from the Advisory Council on Historic Preservation. The State Historic Preservation Officer (SHPO) is to advise and assist federal agencies and other responsible entities when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or reduce the project's effects.

Our records support your finding of **no historic properties affected** within the project's area of potential effects.

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

Sincerely,


for **Carlos A. Rubio-Cancela**
State Historic Preservation Officer
CARC/GMO/OEDJR



February 29, 2024

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-04128 – Finca El Agricultor LLC – Bo. Quebradillas CARR 152 K8 H9 Int., 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 Finca El Agricultor LLC located at Bo. Quebradillas CARR 152 K8 H9 Int., in the municipality of Barranquitas. The undertaking for this project includes the purchase and installation of a water cistern, fencing materials for a new vertical planting system, an irrigation system, and a Dosatron Injector (Plant Germination/Fertilization Equipment). The vertical plantation system will support a new squash plantation area and will be constructed using the requested fencing materials, including 150 metal posts. The posts will be 10 feet in length and will be installed at an approximate depth of 3 feet and connected by cables and wire to provide support for vertical planting. The irrigation system to be installed at the squash plantation area consists of UV polyethylene and vinyl above-ground tubing. The water for the irrigation of the squash plantation will come

by gravity from the 1,000-gallon water cistern and the Dosatron system to provide water with fertilizer to each of the plants which will be installed on an existing concrete pad, up-slope from the new squash planting area.

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

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

Kindest regards,

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

Lauren Bair Poche, M.A.

Architectural Historian, EHP Senior Manager
LBP/JLE

Attachments

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REgROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		
Subrecipient: Finca El Agricultor LLC		
Case ID: PR-RGRW-04128		City: Barranquitas

Project Location: Bo. Quebradillas, Carr 152 K8 H9 Int., Barranquitas PR. 00794-9691	
Project Coordinates: 18.239860, -66.280315	
TPID (Número de Catastro): 221-036-167-25-000	
Type of Undertaking: <input type="checkbox"/> Substantial Repair <input checked="" type="checkbox"/> New Construction	
Construction Date (AH est.): 2000	Property Size (acres): 6.37

SOI-Qualified Architect/Architectural Historian: Maria F. Lopez Schmid
Date Reviewed: 1/15/2024
SOI-Qualified Archaeologist: Roberto G. Muñoz-Pando, PhD
Date Reviewed: January 31, 2024

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 Intent Use of Grant Funds for this project includes the purchase and installation of a water cistern, fencing materials for vertical planting, an irrigation system, and a Dosatron Injector (Plant Germination/Fertilization Equipment). The potential impacts associated to the purchase and installation of the fencing materials to be used as a vertical squash plantation with an irrigation system and the purchase and installation of a Dosatron Injector and a water cistern are included in the analyses below. The land proposed for the scope of work is used for agricultural purposes. This land was used as a chicken farm and is currently used for minor fruits and plantains production.

The Scope of work 1 (SOW-1) is the installation of a vertical squash plantation and irrigation system in an area of the farm centered at coordinates 18.239860, -66.280315. The vertical plantation system is planned to be constructed using the requested fencing materials including 150 metal posts. The posts will be 10 feet in length and will be installed at an approximate depth of 3 feet and connected by cables and wire to provide support for vertical planting. The irrigation system to be installed at the squash plantation area consists of UV polyethylene and vinyl above-ground tubing. The water for the irrigation of the squash plantation will come by gravity from the 1,000-gallon water cistern and the Dosatron system to provide water with fertilizer to each of the plants.

The Scope of Work 2 (SOW-2) is the installation of the 1,000-gallon water cistern and the Dosatron injector system on an existing concrete pad of approximately 10 feet x 6 feet

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REgROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	 <small>GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING</small>
Subrecipient: Finca El Agricultor LLC	
Case ID: PR-RGRW-04128	City: Barranquitas

located at coordinates 18.239929, -66.279998. Some vegetation clearing may be required around the existing concrete pad.

The farm is currently connected to the local electrical system. No new power connection is required. The farm is located in a “Non-PRASA” community and the water service is provided via a communal aqueduct that serves the residents of the area.

The potential impacts from SOW-1 and SOW-2 are included in the analyses below and it is contained within the delimited Area of Potential Effect (APE). The field has not been graded.

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 proposed locations of the installation of a vertical squash plantation and irrigation system (SOW-1) and 1,000-gallon water cistern and the Dosatron injector system (SOW-2). This APE includes a 15-meter buffer and is constrained to the north by the parcel boundary. 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), shows that the project area revealed no archaeological sites within a quarter-mile radius from the Area of Potential effect (APE). Additionally, a previous archaeological survey titled "Desarollo (49) solares" (ICP ID: CAT-BR-07-04-04) conducted by Juan Gonzalez Colon in 2007, located at a distance of 0.10 miles west of the project area, reported negative results and did not recommend further archaeological studies in the vicinity.

The APE itself is characterized by Humatas clay (Hte) soil type, which is characterized by very deep, well-drained, moderately slowly permeable soils on side slopes (20 to 40 percent) and ridges of strongly dissected uplands. These soil conditions, combined with the absence of archaeological sites and the lack of significant archaeological evidence in the survey

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM RE-grow PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	
Subrecipient: Finca El Agricultor LLC	
Case ID: PR-RGRW-04128	City: Barranquitas

performed by Juan Gonzalez Colon in 2007, suggest that the likelihood of finding new, intact, and significant archaeological sites within the APE is relatively low to moderate.

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 surrounded by crop lands and vegetation. The property lies southeast of Route PR-152 in Barranquitas, near the limit with the town of Naranjito to the north. A circa 2000 building that is the applicant’s house, is located south of the APE geocoordinates. The building, shown below, appears on a 2004 aerial image, but not on a 1994 aerial image.



Figures 1 & 2. Detail of 1994 aerial image and of 2004 Google Maps aerial image indicating the location of the building on the property.

This building (shown below) is a one-story reinforced concrete structure used for storage with a flat concrete roof with overhangs. The concrete building is attached to a metal trailer on the west side and a corrugated metal roof structure over metal pipe columns is to the south. The building has concrete walls, metal door and metal jalousie windows. The property entrance is via a concrete fence with metal gates.



Figures 3 & 4. Images of a storage building on the property, view to the west and front gate entrance, view to the east.

This building **does not** meet the requirements to be eligible for listing on the National Register of Historic Places.

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 project actions **will not** affect the historic properties that compose the Area of Potential Effect. The project area lies outside the boundaries of National Register of Historic Places (NRHP)-eligible or listed areas, and there are no NRHP-listed historic properties within the quarter-mile buffer zone from the APE. Moreover, the soil composition, characterized by Humatas clay (Hte), do not favor the preservation of archaeological deposits, and the absence of archaeological sites in the area further diminishes the potential for discovering new, well-preserved, and significant archaeological sites. The 2007 survey by Juan Gonzalez Colon found no significant archaeological evidence and did not recommend further studies, indicating low to moderate potential for historical or archaeological resources in the vicinity. Collectively, these elements provide strong support for the conclusion that the project will not affect any historic properties, and therefore the recommendation of "No historic properties affected" is appropriate.

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	
Subrecipient: Finca El Agricultor LLC	
Case ID: PR-RGRW-04128	City: Barranquitas

Recommendation

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

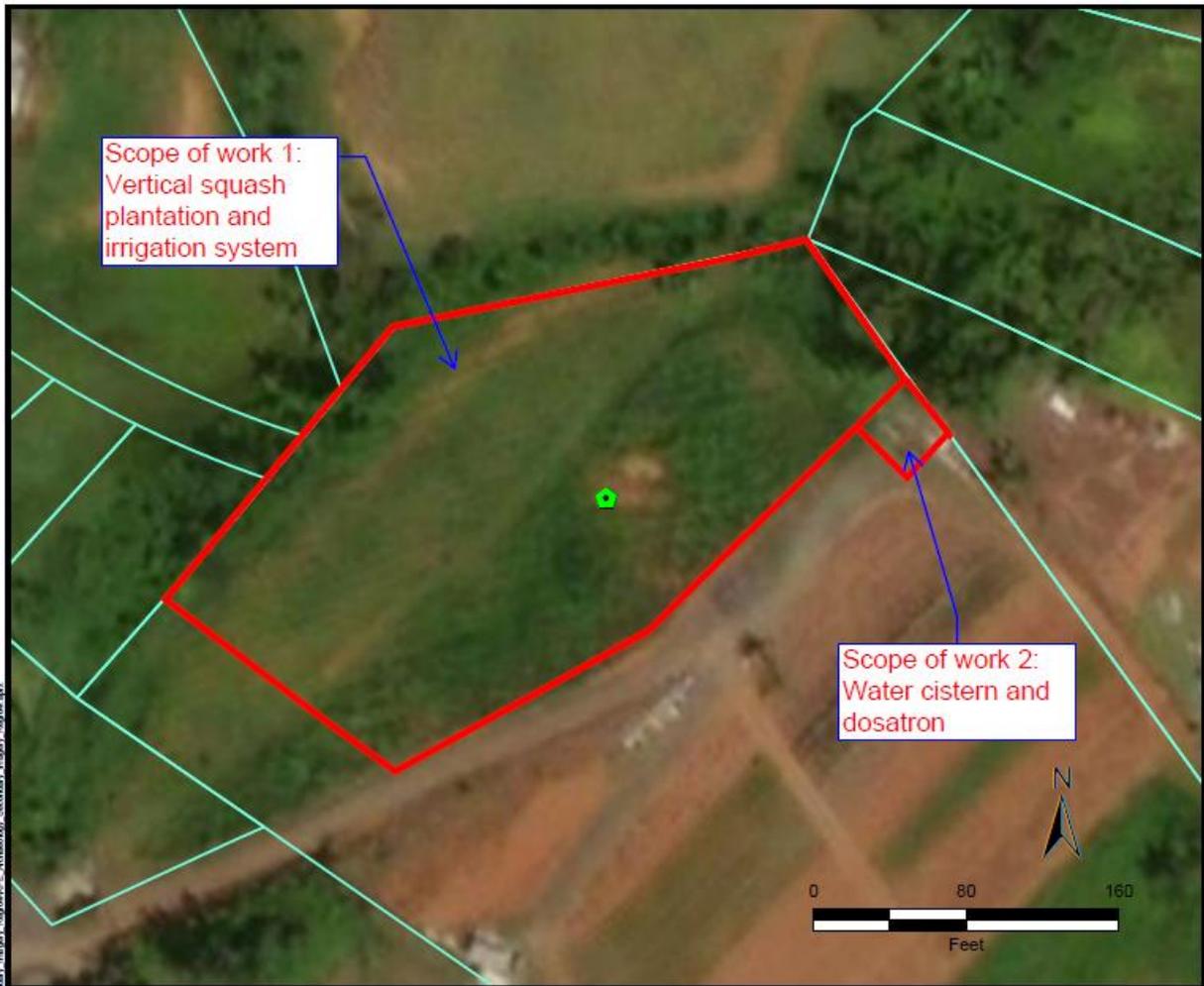
<p>The Puerto Rico State Historic Preservation Office has reviewed the above information and:</p> <p><input type="checkbox"/> Concurs with the information provided.</p> <p><input type="checkbox"/> Does not concur with the information provided.</p>	
<p>Comments:</p>	
<p>Carlos Rubio-Cancela State Historic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

Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas

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



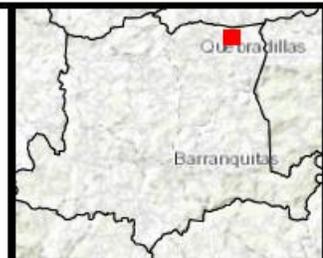
Source: CRIM

Author: TG

Date: 11/29/2023

Legend

-  Tier 2 Site
-  Area of Potential Effect
-  Parcelario

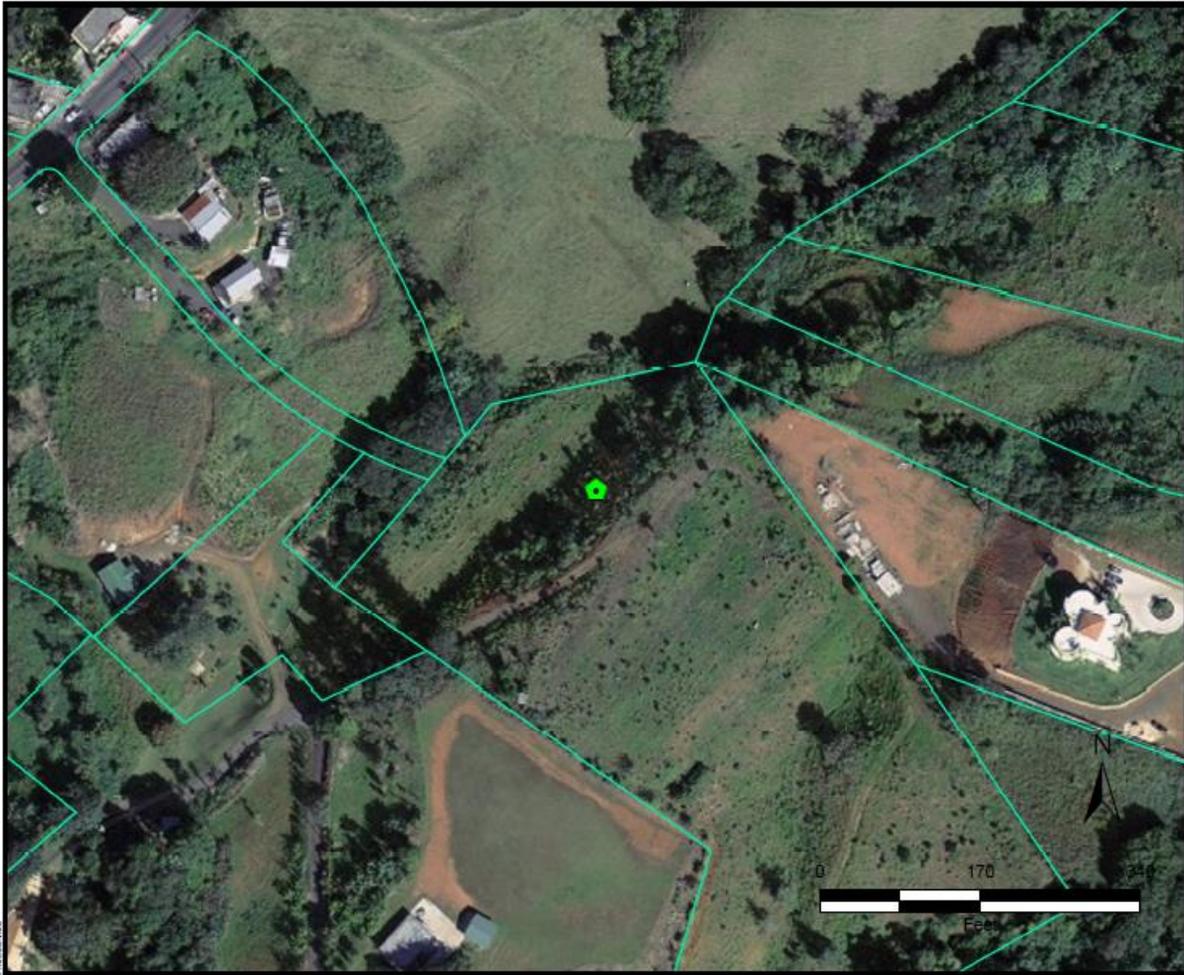


Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas

Project (Parcel) Location - Aerial Map



D:\Path\Mapa\04128\1\COMPA\04128\Mapa\04128\04128_01_LOC.mxd



Source: CRIM

Author: TG

Date: 9/22/2022

Legend

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



Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

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

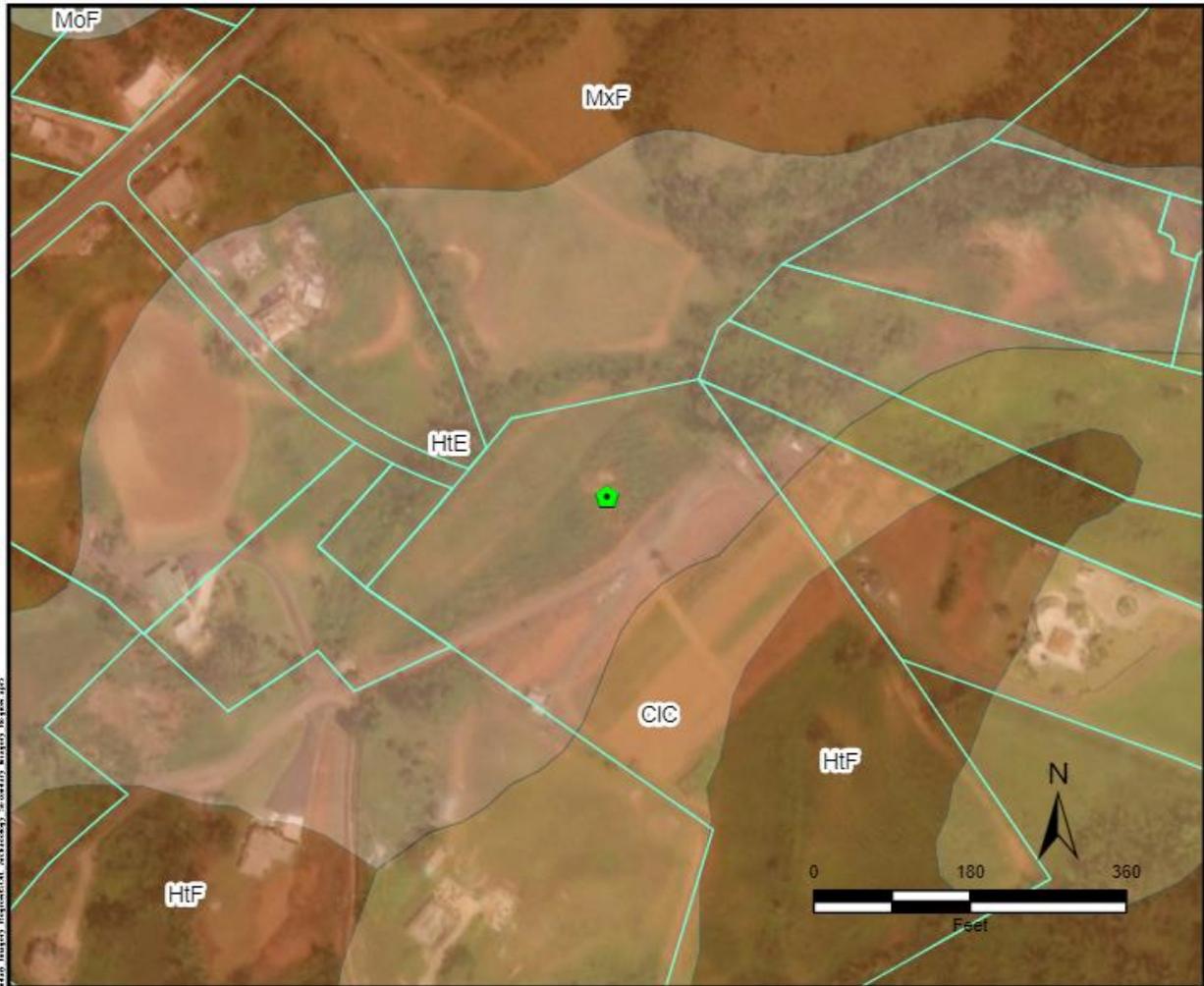


Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas

Project (Parcel) Location – Soils Map



\\fs-01\pub\GIS\Projects\106\106_04128\106_04128_SoilsMap.aprx



Source: USDA

Author: TG

Date: 11/27/2023

- Legend**
-  Tier 2 Site
 -  Parcelario
 - Soil Type**
 -  CIC/Catalina clay, 4 to 12 percent slopes
 -  HtE/Humatas clay, 20 to 40 percent slopes
 -  HtF/Humatas clay, 40 to 60 percent slopes
 -  MoF/Maricao clay, 20 to 60 percent slopes
 -  MxF/Mucres clay, 40 to 60 percent slopes



Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas

Photograph Key



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City: Barranquitas



Photo #: 1

Description (include direction): Scope of work 1: Vertical Squash Plantation and irrigation system, view to the north.

Date: 12/13/2023



Photo #: 2

Description (include direction): Scope of work 1: Vertical Squash Plantation and irrigation system, view to the northeast.

Date: 12/13/2023

Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas



Photo #: 3

Description (include direction): Scope of work 1: Vertical Squash Plantation and irrigation system, view to the west.

Date: 12/13/2023



Photo #: 4

Description (include direction): Scope of work 1: Vertical Squash Plantation and irrigation system, view to the west.

Date: 12/13/2023

Subrecipient: Finca El Agricultor LLC

Case ID: PR-RGRW-04128

City: Barranquitas



Photo #: 5

Description (include direction): Scope of work 2: Installation of a water cistern and a dosatron, view to the northwest.

Date: 12/13/2023



Photo #: 6

Description (include direction): Scope of work 2: Installation of a water cistern and a dosatron, view to the northeast.

Date: 12/13/2023



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,

A handwritten signature in blue ink, appearing to be 'JB', is written over the printed name of the signatory.

Juan C. Pérez Bofill, P.E. M.Eng

Director of Disaster Recovery

CDBG DR-MIT