

Environmental Assessment

Determinations and Compliance Findings for HUD-assisted Projects

24 CFR Part 58

Project Information

Project ID: PR-RGRW-02561

Project Name: Más Fresco Que Fresco LLC

Responsible Entity: Puerto Rico Department of Housing

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

State/Local Identifier: Puerto Rico / Municipio of Morovis

Preparer: Heath Anderson, Deputy Program Manager

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Consultant (if applicable): SWCA Environmental Consultants

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Project Location:

The proposed project, which includes the purchase and installation of eight 8 new hydroponic greenhouses, 8 cisterns, and associated equipment, is located on a 139.67-acre parcel (Cadastral Number 193-000-002-38-000) at Barrio Perchas Carretera 155 Km 1.5, Morovis, Puerto Rico 00687 (see **Appendix A, Figure 1**- Site Location and **Figure 2**- Site

Vicinity). The property is in a predominantly rural area in the southeastern portion of Morovis Municipio. Access to the project site is provided via an existing paved road that runs along the northern portion of the project site.

The applicant has identified one location for project activities related for the Intended Use of Grant Funds that are being evaluated under this Environmental Assessment, also shown on Figures 1 and 2:

- Eight 8 hydroponic greenhouses and eight 8 cisterns (18.271688, -66.415708) in the northern portion of the property.

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

The project includes the purchase of materials to construct eight (8) new hydroponic greenhouses and the purchase of greenhouse accessories (ground coverings, plastic sheets, saran sheets, and poly-fasteners) and submersible water pumps. The applicant intends to purchase 8 water cisterns with their own funding. The greenhouses and cisterns will be located in the northern portion of the project property where the ground is bare and relatively flat. Substantial grading activities are not required.

Each greenhouse will be 1,000 square feet (sq ft) in size (50 feet [ft] by 20 ft) and 12 ft in height for a total area of 8,000 sq ft of the project site. The greenhouses will be secured to the ground using a total of approximately 96 posts attached to concrete footers with a maximum depth of 2 ft. The floor of the greenhouses will be covered with greenhouse cloth to prevent mud and undergrowth vegetation inside the structures. Other greenhouse accessories will include 9,600 sq ft of impermeable plastic used to cover the structures, an 8,800-sq ft shade cover, and poly fasteners to secure the shade cover when needed.

The project also includes the installation of eight 25-sq ft cisterns (5 ft by 5 ft) to hold water for the hydroponic system. The cisterns will abut the western side of the proposed greenhouses for an additional project footprint area of 200 sq ft and will be placed directly on the ground with no additional ground-disturbing activities. The project includes the purchase of 20 submersible water pumps that will be used to supply water from the cisterns to the hydroponics system. No ground disturbance is required for the submersible pumps.

There is an existing water connection located at the entrance of the property, approximately 850 feet west of the proposed location of the greenhouses. In addition, a new electrical connection will be installed in close proximity to the existing water connection. Electricity is provided to the property by LUMA and GENERA and water is provided to the property by Autoridad De Acueductos Y Alcantarillados (AAA) / Puerto Rico Aqueducts and Sewers Authority (PRASA).

The project includes the installation of an above-ground electrical line from the proposed electrical connection located at the entrance of the property along the existing access

road to extend electricity to the project site. The electric line extension will include the installation of approximately 8 to 9 electric poles with anchors installed up to 8 ft below ground approximately 130 feet apart. The proposed electric poles will be 25 to 35 ft in height and would be constructed of wood. The final location of the electric poles will be determined by the energy provider at the time of installation. Vegetation pruning and some tree removal is expected.

The project will require an underground extension of the landowner's southern water line. This water line extension will extend approximately 115 to 135 ft from either the northern or northeastern end of the existing southern water line to the proposed location of the greenhouses.

The water line extension will be installed up to 3 ft underground. The area of disturbance will be recovered with soils originally removed for installation of the water line extension to allow for revegetation and continued use of the property, including the access driveway and other internal pathways. The water and electrical connections would be funded by the Applicant's own funds and are not included in the Applicant's intended use of grant funds.

The project will have ground disturbance for the installation of the footings for the new greenhouses and installation of the water pipeline. No tree clearing or vegetation pruning is required for construction of the greenhouses or cisterns; however, some tree removal and vegetation pruning is expected for installation of the proposed above-ground electric line. The applicant is leasing the property.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

In September of 2017, Hurricanes Irma and María produced sustained winds and intense rainfall that decimated agricultural production across the island of Puerto Rico. These hurricanes caused the loss of eighty percent of crop value island wide, exacerbating challenges to food security and agricultural business development. The Puerto Rico Department of Agriculture (PRDA) estimated seven hundred and eighty million dollars (\$780 million) worth of damages from the hurricanes to the agricultural sector of the economy.

Many properties were damaged in Hurricane Maria, resulting in struggling businesses. The Re-Grow Puerto Rico Urban-Rural Agriculture Program (Re-Grow Program) will develop greater agricultural capacity and address the needs created by Hurricanes Irma and María with a substantial investment of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds for a wide variety of viable and sustainable agricultural activities.

Agricultural capacity and strong food systems are fundamental to resiliency of economies and, as Puerto Rico's entire agriculture sector was devastated by the Hurricanes, this Program is designed to revitalize this industry. The Re-Grow Program is an

integral part of the long-term expansion of jobs in the sector, food security and contributing to overall economic recovery of disaster impacted populations.

The applicant does not have the resources to purchase materials to construct eight new hydroponic greenhouses and the purchase of associated equipment, including greenhouse accessories and submersible water pumps nor has the applicant received any other outside source of funding for the project. The new greenhouses and associated greenhouse accessories will help increase agricultural production. The project as a whole will support continued local agricultural production during future disasters.

Agencies consulted for the proposed project are provided in the *List of Sources, Agencies and Persons Consulted* section of this Environmental Assessment (EA). Further discussion of the environmental impacts of the proposed action and alternatives is provided in the *Cumulative Impact Analysis, Alternatives/No Action Alternative*, and *Summary of Findings and Conclusions* sections of this EA.

Existing Conditions and Trends

The proposed project is located in a predominantly rural area in the southeastern portion of Morovis Municipio. The parcel is designated as Rural General (R-G) land use and classified as Specially Protected Rustic Land – Agricultural (SREP-A). Land use immediately surrounding the parcel consists primarily of undeveloped agricultural lands and scattered, low-density residences in all directions.

The topography of the property consists of steep slopes and densely vegetated areas. The project site is located on a portion of the property with relatively flat topography. There are existing low-density residential structures and a driveway located approximately 200 feet northwest of the proposed greenhouse location. The remaining portions of the property consist primarily of undeveloped agricultural lands and scattered, low-density residences. The project site consists of bare ground areas. There are no water resources or unique natural features on the property.

Funding Information

Grant Number	HUD Program	Funding Amount
B-17-DM-72-0001 B-18-DP-72-0001 B-19-DP-78-0002 B-18-DE-72-0001	Community Development Block Grant – Disaster Recovery (CDBG-DR)	\$11,938,162,230

Estimated Total HUD Funded Amount: \$44,781.80

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$46,231.79

Compliance with 24 CFR 58.5 and 58.6 Laws and Authorities

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

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The project site is not within 2,500 ft of a civil primary or commercial service airport or within 15,000 ft of a military airport. The nearest civil primary or commercial service airport, Mercedita International Airport, is located 107,834 ft (20 miles [mi]) southwest of the project site. The nearest military airport, Luis Munoz Marin International Airport, is located 151,026 ft (29 mi) northeast of the project site. No further evaluation is required. The project is in compliance with airport hazards requirements.</p> <p>The Airport Hazards Partner Worksheet and Airport Hazards Map (Figure B 1-1) are provided in Appendix B, Attachment 1.</p>
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The project site is not located in a Coastal Barrier Resource Systems Unit (CBRS) or Otherwise Protected Area (OPA). There are no CBRS units in Morovis. The closest CBRS unit, Tortuguero, is located 66,839 ft (13 mi) north of the project site. No further evaluation is required. The project is in compliance with the Coastal Barrier Resources Act.</p> <p>The Coastal Barrier Resources Act Partner Worksheet and Coastal Barrier</p>

		Resources Map (Figure B 2-1) are provided in Appendix B, Attachment 2.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	A review of the FEMA Flood Insurance Rate Map (FIRM), Community Panel 72000C0670J (effective date 11/18/2009), shows the project site is in Flood Zone X, which is not in a Special Flood Hazard Area (SFHA). Flood insurance is not required. No further evaluation is required. The project is in compliance with the Flood Disaster Protection Act and National Flood Insurance Reform Act. The Flood Insurance Partner Worksheet and FIRM (Figure B 3-1) are provided in Appendix B, Attachment 3.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is in Morovis Municipio, which is within a U.S. Environmental Protection Agency (USEPA) designated attainment area. Municipios in nonattainment or maintenance areas include Arecibo, Bayamon, Catano, Guaynabo, Salinas, San Juan, and Toa Baja. Project activities include the purchase and installation of eight 8 new hydroponic greenhouses, 8 cisterns, and associated equipment. The project is not anticipated to have a negative impact on air quality. Emissions associated with construction activities for the proposed project are temporary and limited to the use of small construction equipment and will be well below the Federal General Conformity Rule de minimis thresholds. No further evaluation is required. The project is in compliance with the Clean Air Act. The Air Quality Partner Worksheet, List of Non-Attainment/Maintenance Status Counties in Puerto Rico, and Clean Air Map (Figure B 4-1) are provided in Appendix B, Attachment 4.

<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 site is not located within the Puerto Rico Coastal Management Zone. The closest coastal zone area is located 62,943 ft (12 mi) from the project site. No further evaluation is required. The project is in compliance with the Coastal Zone Management Act.</p> <p>The Coastal Zone Management Partner Worksheet and Coastal Zone Map (Figure B 5-1) are provided in Appendix B, Attachment 5.</p>
<p>Contamination and Toxic Substances</p> <p>24 CFR Part 58.5(i)(2)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project site was evaluated for potential contamination by conducting a field site inspection on September 21, 2023 to identify any onsite hazards including, but not limited to, soil staining, above ground storage tanks, signs of underground storage tanks, odors, hazardous debris etc. The site inspection did not identify any onsite hazards, stained soil or vegetation and the project is in compliance with contamination and toxic substances requirements.</p> <p>The project does not involve any occupied structures, and therefore, is exempt from considering radon as part of the site contamination analysis as per HUD Notice CDP- 23-103.</p> <p>In addition, a desktop review of USEPA databases, NEPAassist, and other sources was conducted to determine if the project site was located near dump sites, junk yards, landfills, hazardous waste sites, or industrial sites, including USEPA National Priorities List Sites (Superfund sites), CERCLA or state-equivalent sites, RCRA Corrective Action sites with release(s) or suspected release(s) requiring clean-up action and/or further investigation. The parcel has been used for agricultural purposes and there has been no change in land use in the last 20 years. The project is located in a rural area of Morovis</p>

		<p>Municipio and will continue to be used for agricultural purpose.</p> <p>The desktop review did not find any of the above-listed toxic, hazardous or radioactive substances in or within 3,000 ft of the project area. The project is in compliance with contamination and toxic substances requirements.</p> <p>The Contamination and Toxics Substances Partner Worksheet, Radon Agency Correspondence and MEmorandum, and Contamination and Toxic Substances Map (Figure B 6-1) are provided in Appendix B, Attachment 6.</p>
<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The project involves activities that have the potential to affect protected species or habitats including but not limited to activities such as ground disturbance.</p> <p>Threatened, endangered, and migratory bird species were identified by reviewing data from the United States Fish and Wildlife Service (USFWS) Information and Planning Consultation (IPaC) Tool. In addition, critical species habitat was reviewed through the USFWS IPaC and Critical Habitat Portal. The review identified two federally listed species (Puerto Rican boa [<i>Chilobothrus inornatus</i>] and Puerto Rican harlequin butterfly [<i>Atlantea tulita</i>]) with the potential to occur within the project area. There is no designated or proposed critical habitat within the project area; the closest final designated critical habitat is located 44,571 feet (8 mi) away.</p> <p>The project activities will result in ground disturbing activities, including installation of concrete footers for the greenhouses and extension of an existing underground water line. A qualified biologist reviewed the proposed activity location(s) and determined that the project will have <i>no effect</i> on the Puerto Rican harlequin butterfly designated</p>

		<p>critical habitat. Due to the generalist nature of the Puerto Rican boa, forested habitat surrounding the project areas, and dense ground cover present throughout the review area, the Puerto Rican boa may occur within the project area. The applicant will employ the conservation measures outlined in the USFWS 2024 General Project Design Guidelines for the Puerto Rican boa. As such, it is anticipated that the project <i>may affect, but is not likely to adversely affect</i> the Puerto Rican boa. USFWS was consulted, and that they acknowledged the receipt of the Dkey NLAA consistency letter on August 4, 2024.</p> <p>If a Puerto Rican Boa is found in the project action site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the CM shall contact the Puerto Rico Department of Natural and Environmental Resources and ask for them to relocate the Boa.</p> <p>The Endangered Species Act Partner Worksheet, Threatened and Endangered Species Technical Memorandum with IPaC, Critical Habitat Map (Figure B 7-1) are provided in Appendix B, Attachment 7.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The project itself is not the development of a hazardous facility nor will the project increase residential densities. No further evaluation is required. The project is in compliance with explosive and flammable hazard requirements.</p> <p>The Explosive and Flammable Hazards Partner Worksheet is provided in Appendix B, Attachment 8.</p>
<p>Farmlands Protection</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project does not include any activities that could potentially convert</p>

<p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>		<p>agricultural land to non-agricultural use. Per the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the project area crosses one mapped soil series: Caguabo-Rock outcrop complex, 20 to 60 percent slopes (CbF), Humatas clay, 20 to 40 percent slopes (HmE), Humatas clay, 40 to 60 percent slopes (HmF), and Mucara clay, 40 to 60 percent slopes (MuF). No prime farmland is within the project area; however, there is farmland of statewide importance located to the north of the project site. 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. The project is in compliance with the Farmland Protection Policy Act.</p> <p>The Farmlands Protection Partner Worksheet and Prime Farmland Map (Figure B 9-1) are provided in Appendix B, Attachment 9.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>An Advisory Base Flood Elevation (ABFE) map was developed by FEMA, which shows the project site is in Flood Zone X. The project site is not located in the 100-year floodplain or ABFE special flood hazard area. The extent of the FFRMS floodplain was determined using the 0.2 percent flood approach. The project is in compliance with Executive Order 11988, as amended by Executive Order 13690 particularly section 2(a); 24 CFR Part 55.</p> <p>Preliminary Flood Insurance Rate Maps (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 Morovis; therefore, PFIRM</p>

		<p>information was not available for the area and therefore not considered in the review.</p> <p>HUD implemented new floodplain regulations under 89 FR 30850 effective June 24, 2024, which created the Federal Flood Risk Management Standard (FFRMS). The current project comprises non-critical actions that lie outside the 0.2-percent-annual-chance (500-year flood elevation), which is the approach used for this project to comply with the FFRMS; therefore, mitigation is not required, and the project is in compliance with 24 CFR Part 55.</p> <p>The Floodplain Management Partner Worksheet and ABFE Floodplain Map (Figure B 10-1) are provided in Appendix B, Attachment 10.</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 project will involve the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps and ground disturbing activities in a previously cleared area. State Historic Preservation Office (SHPO) consultation was performed.</p> <p>No National Historic Landmark (NHL) are within or near the project area.</p> <p>Record reviews and research were conducted at the SHPO and the Instituto de Cultura Puertorriqueña (ICP) to determine if any archaeologically sensitive resources could be present within a 0.5-mile radius.</p> <p>The results of the record search and the site inspection indicate that there are no historic properties or cultural resources within the 0.50-mile radius study area or within the project Area of Potential Effect (APE). Based on the results of the historic property identification efforts, the Program has determined that project actions will not</p>

		<p>affect historic properties that compose the APE.</p> <p>The determination was submitted to SHPO by PRDOH for concurrence on October 22, 2024 and SHPO concurred with the No Historic Properties Affected determination on November 18, 2024. No further evaluation is required. The project is in compliance with the National Historic Preservation Act.</p> <p>The Historic Preservation Partner Worksheet, and SHPO consultation, including a Previously Recorded Cultural Resources Map, are provided in Appendix B, Attachment 11.</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 activities are limited to the purchase and installation of eight 8 new hydroponic greenhouses, 8 cisterns, and associated equipment and do not involve residential new construction or rehabilitation. No further evaluation is required. The project is in compliance with HUD's noise regulation.</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>According to the USEPA's Source Water Protection, Sole Source Aquifer Protection Program, there are no sole source aquifers in Puerto Rico. No further evaluation is required. The project is in compliance with the Safe Drinking Water Act.</p> <p>The Sole Source Aquifer Partner Worksheet and Sole Source Aquifer Map (Figure B 12-1) are provided in Appendix B, Attachment 12.</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 site was reviewed for wetlands using the U.S. Fish and Wildlife Service (USFWS) Wetland Inventory Mapper and a visual confirmation during the field site inspection. No wetlands were determined to be present on site. No further evaluation is required. The project is in compliance with Executive Order 11990.</p>

		The Wetlands Protection Partner Worksheet and Wetland Map (Figure B 13-1) are provided in Appendix B, Attachment 13 .
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	A review of the USFWS National Wild and Scenic River mapper identified no Wild and Scenic Rivers or National Rivers Inventory (NRI) rivers present in Morovis Municipio. The closest Wild and Scenic River segment is located 216,938 ft (41 miles) east of the project site. No further evaluation is required. The project is in compliance with the Wild and Scenic Rivers Act. The Wild and Scenic Rivers Partner Worksheet and Wild and Scenic Rivers Map (Figure B 14-1) are provided in Appendix B, Attachment 14 .
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The ReGrow Program intends to alleviate negative economic impacts to, and strengthen, the agricultural industry in Puerto Rico. The project's direct and indirect impacts are limited to a small area on a single land parcel. The project will benefit the farm owner by improving agricultural use and production. The project would not facilitate development that would negatively affect human health or result in disproportionate adverse environmental impacts to low-income or minority populations. The project is in compliance with Executive Order 12898. The Environmental Justice Partner Worksheet and EJSscreen Report are provided in Appendix B, Attachment 15 .

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 or 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	<p>The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The parcel is designated as Rural General (R-G) land use and classified as Specially Protected Rustic Land – Agricultural (SREP-A). The proposed action is continued agricultural use of property, which is compatible with zoning and existing land use.</p> <p>Construction actions include minor improvements which increase the current function of the existing land use. There is no change in land use since the land will continue to be used for agriculture purposes. The project site is in a rural area of Morovis Municipio, and project activities will not contribute to urban sprawl.</p> <p>The applicant and/or construction manager is required to obtain any necessary local and territorial building and environmental permits prior to construction activities commencing.</p>
Soil Suitability/ Slope/ Erosion/	2	The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. Soil

Drainage/ Storm Water Runoff		<p>suitability will be assessed prior to construction and will be addressed during local permitting processes. Per the USDA NRCS Web Soil Survey, the project area crosses one mapped soil series: Caguabo-Rock outcrop complex, 20 to 60 percent slopes (CbF), Humatas clay, 20 to 40 percent slopes (HmE), Humatas clay, 40 to 60 percent slopes (HmF), and Mucara clay, 40 to 60 percent slopes (MuF). Contractors will be required to use best management practices during construction to control erosion and prevent runoff.</p> <p>Landslide data from the U.S. Geological Survey (USGS) indicates less than 25 landslides per square kilometer for the project area (see Appendix A, Figure 3- USGS Landslide Map).</p> <p>Department of Natural and Environmental Resources (DNER) authorization is required for any extraction, removal, excavation, and dredging of the components of the earth's crust.</p>
Hazards and Nuisances including Site Safety and Noise	2	<p>The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. Contractors will be required to provide health and safety plans and monitoring during construction. Noise levels will temporarily increase during construction which may impact surrounding rural residences; however, program activities are limited to the existing farm property and will not elevate long-term ambient noise levels. Contractors will be required to comply with the applicable local noise ordinances. Noise impacts will be mitigated by restricting construction activities to daylight hours and to the hours established in the Regulation for Noise Control and Pollution in Puerto Rico. Additionally, the project does not include housing to where inhabitants would be affected.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The

		project is not anticipated to have a significant impact on employment and income patterns; however, the project may help restore employment opportunities and income patterns.
Demographic Character Changes, Displacement	2	The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps on a 139.67-acre parcel in a rural area in Morovis Municipio. The project will not alter the demographics or character of the surrounding community. Project activities will not result in any direct or indirect displacement of individuals or families.
Environmental Justice	2	The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The ReGrow Program intends to alleviate negative economic impacts to, and strengthen, the agricultural industry in Puerto Rico. The project's direct and indirect impacts are limited to a small area on a single land parcel. The project will benefit the farm owner by improving agricultural use and production. The project would not facilitate development that would negatively affect human health or result in disproportionate adverse environmental impacts to low-income or minority populations (see EJ Screen Report in Attachment 15).

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps on private land and will not contribute to any change in educational or cultural facilities or affect access to or capacity of educational or cultural facilities.
Commercial Facilities	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The proposed project will increase agricultural production, resulting in a net positive impact to the

		applicant's farm commercial output and a positive benefit to surrounding commercial enterprises who purchase the produce; however, the project will not put undue pressure on commercial facilities.
Health Care and Social Services	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps on private land and will not affect access to or capacity of health care and social services.
Solid Waste Disposal / Recycling	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The proposed project may cause an increase in short-term generation of solid waste during construction. All construction debris will be disposed of at the proper facilities for the debris type (i.e., construction waste). The project will not contribute to long-term needs or changes to solid waste disposal and recycling.
Wastewater / Sanitary Sewers	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps, which is not expected to result in any changes in wastewater or sanitary sewer generation. Sewage will not be generated from the project. No new wastewater or sanitary sewer connections are required for this project.
Water Supply	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. There are existing water connections located at the entrance of the property. Water is provided to the property by Autoridad De Acueductos Y Alcantarillados (AAA) / Puerto Rico Aqueducts and Sewers Authority (PRASA). The existing water line will be extended via a below-ground extension to provide water to the proposed project. The applicant should obtain authorization from PRASA or AAA prior to expanding the connections.
Public Safety - Police, Fire and Emergency Medical	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps on private land and will not affect public

		safety concerns such as police, fire, and emergency medical services.
Parks, Open Space and Recreation	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps on private land and will not result in any changes to access or use of parks, open space, and recreation areas.
Transportation and Accessibility	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps on private land and will have no relation to transportation services. The proposed activities will not result in any changes in transportation and accessibility.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The project is not located in proximity to unique natural features or water resources; therefore, construction activities will not affect quality or access to these resources.
Vegetation, Wildlife	2	No tree clearing or vegetation pruning is required for construction of the 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps; however, some tree and vegetation removal will be required for installation of the electrical line. Although there will be some removal and pruning of trees, the project is not anticipated to negatively impact trees, vegetation, wildlife, or native plant communities because the area of disturbance will be recovered with soils originally removed for installation of the electrical line extension to allow for revegetation.

Environmental Assessment Factor	Impact Code	Impact Evaluation
CLIMATE AND ENERGY		
Climate Change Impacts	2	<p>The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The proposed ReGrow program project aims to increase resiliency in the agricultural industry to prepare for future climate related disasters, including drought. The Climate Mapping for Resilience and Adaptation Assessment tool (https://resilience.climate.gov/#assessment-tool) provides historical and future climate data for five common climate-related hazards (extreme heat, drought, wildfires, flooding, and coastal inundation). The data model for the census tract that includes application location does not indicate a significant increase in hazard risks from climate change for wildfire or flooding, when comparing historical data (1976-2005) to future projections. The model projects a greater number of days where temperatures will exceed 90 degrees Fahrenheit and where annual precipitation will marginally decrease after 2015, which is a systemic trend in the model across the Island.</p> <p>The specific activities proposed for this economic development project are limited in scale and land impacts. The proposed construction activities for the greenhouses, cisterns, and other features are for individual farm use and will not result in a significant increase in electricity or water draw. The greenhouse will allow the applicant to control the water to the crops and will reduce the amount needed compared to open air farming which often results in higher evapotranspiration. The equipment that will be used during construction and operation will also be limited to occasional use at this specific land parcel, and therefore will not generate a significant amount of greenhouse gas.</p>
Energy Efficiency	2	<p>The proposed project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps and will not result in significant additional energy consumption. There are existing electrical connections located at the entrance of the property.</p>

		<p>Electricity is provided to the property by LUMA and GENERA. The existing electrical line will be extended via an above-ground extension to provide energy to the proposed project.</p> <p>The applicant should obtain authorization from LUMA and or GENERA prior to expanding the connections.</p>
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Additional Studies Performed:

No additional studies were performed.

Field Inspection (Date and completed by):

Field inspection completed on September 21, 2023, by Delise Torres Ortiz, SWCA Environmental Consultants.

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

Department of Economic Development and Commerce. 2023. Sole Incidental Operational Permit for Cutting, Pruning, Transplanting and Tree System Authorization. Permits Management Office. Accessed November 18, 2024. Available at: [Permits Management Office Department of Economic Development and Commerce \(pr.gov\)](#).

Department of Natural and Environmental Resources (DNER). 2023. Puerto Rico DNER Species Ranges – under construction. Accessed February 6, 2024. Available at: <https://arcg.is/1S9aju0>.

Federal Aviation Administration (FAA). 2022. National Plan for Integrated Airport Systems 2023-2027. Accessed February 6, 2024. Available at: [National Plan of Integrated Airport Systems \(NPIAS\) 2023-2027, Appendix B: National and State Maps \(faa.gov\)](#).

Federal Emergency Management Agency (FEMA). 2023. FEMA Flood Map Service Center - Map Panel 72000C0H545H (effective 4/19/2005). Accessed February 6, 2024. Available at: <https://msc.fema.gov/portal/home>.

Institute of Puerto Rican Culture (ICP). 2023. San Juan, Puerto Rico. Data collection conducted on May 17, 2024.

National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management. 2023. Puerto Rico Coastal Zone Boundary. Accessed February 6, 2024. Available at: [Puerto Rico Coastal Vulnerability Viewer \(arcgis.com\)](#).

State Historic Preservation Office (SHPO). 2023. San Juan, Puerto Rico. Data collection conducted on May 17, 2024.

U.S. Environmental Protection Agency (USEPA). 2022a. Envirofacts Mapper. Air pollution data (ICIS-AIR), Brownfields, Hazardous Waste (RCRAInfo), Superfund National Priorities List (NPL), Toxic Releases Inventory (TRI), and National Pollutants Discharge Elimination

Systems (NPDES). Accessed January 2, 2024. Available at: <https://geopub.epa.gov/arcgis/rest/services/EMEF/efpoints/MapServer>.

USEPA. 2022b. Sole Source Aquifer Map. Accessed March 1, 2024. Available at: <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>.

USEPA. 2023a. Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. USEPA Green Book. Accessed February 6, 2024 Available at: https://www3.epa.gov/airquality/greenbook/anayo_pr.html.

USEPA. 2023b. EJScreen: Environmental Justice Screening and Mapping Tool. Accessed February 6, 2024. Available at: <https://www.epa.gov/ejscreen/download-ejscreen-data>.

U.S. Fish and Wildlife Service (USFWS). 2019. Coastal Barrier Resources System. Accessed February 6, 2024. Available at: <https://www.fws.gov/CBRA/Maps/Mapper.html>.

USFWS. 2023a. Information for Planning and Consultation (IPaC). Accessed May 29, 2024. Available at: <https://ipac.ecosphere.fws.gov/location/index>.

USFWS. 2023b. Critical Habitat for Threatened & Endangered Species. Accessed February 6, 2024. Available at: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>.

USFWS. 2023c. National Wetlands Inventory Surface Waters and Wetlands Mapper. Accessed February 6, 2024. Available at: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.

U.S. Forest Service. 2022. National Wild and Scenic River Segments. Accessed February 6, 2024. Available at: <https://www.rivers.gov/mapping-gis.php>; [Wild & Scenic Rivers | US Forest Service \(usda.gov\)](#).

U.S. Geological Survey (USGS). 2022. Concentration of Landslides caused by Hurricane Maria, Puerto Rico. Accessed February 6, 2024. Available at: [U.S. Landslide Inventory \(arcgis.com\)](#).

List of Permits Obtained:

No permits have been obtained.

Public Outreach [24 CFR 58.43]:

Puerto Rico Department of Agriculture has worked closely with the agricultural community. In compliance with the National Environmental Policy Act (NEPA) regulations for HUD, the public will be notified of the project through publication of the combined Finding of No Significant Impact (FONSI) – Notice of Intent to Request Release of Funds (NOI-RROF) notice with a 15-day public comment period.

Cumulative Impact Analysis [24 CFR 58.32]:

The purchase and installation of eight 8 new hydroponic greenhouses, 8 cisterns, and associated equipment at the project site is not anticipated to have a negative impact on environmental resources. The expansion of water and electrical utilities is not anticipated to pose a negative environmental impact as all authorizations and permits will be acquired prior to construction. Overall, the project will have a net positive impact by helping a small business increase their capacity for agricultural production. No other planned or ongoing projects were identified in the project vicinity that could contribute to cumulative impacts of environmental resources.

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

Within the boundaries of the property, other locations could be considered for the new greenhouses and cisterns. However, other locations may require greater environmental impacts such as additional ground disturbance, grading for slopes that are not suitable for installation or additional tree clearing and would result in higher costs to the applicant.

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

Under the No Action Alternative, the applicant would not receive federal funding to purchase and construct new greenhouses, cisterns, and other accessories. Consequently, the applicant may not be able to recover and continue agricultural production. Given the degree of need for greater agricultural capacity in Puerto Rico following Hurricanes Irma and María, the costs of foregoing the project would exceed the benefits.

Summary of Findings and Conclusions:

The proposed project would not result in any adverse impacts to the surrounding natural, historical, and water resources; generate significant air or noise pollution; or promote environmental or socioeconomic injustices. The proposed project is not located within a coastal zone or near a major water resource.

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

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

Law, Authority, or Factor	Mitigation Measure
Endangered Species	If a Puerto Rican Boa (Boa) is found in the project activity site, work shall cease until the Boa moves off

<p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>site on its own. If the Boa does not move off site, the construction manager shall contact the Puerto Rico DNER to relocate the Boa. The USFWS has developed the following conservation measures for the Boa:</p> <ol style="list-style-type: none"> 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 #s: (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
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	<p>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. Last Revised: January 2024</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>10. Projects must comply with all state laws and regulations. Please contact the PRDNER for further guidance.</p>
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	<p>The USFWS has developed the following conservation measures for the Puerto Rican Harlequin Butterfly species in case an encounter occurs:</p> <ol style="list-style-type: none"> 1. All project construction personnel must be informed about the potential presence of the PR harlequin butterfly or its occupied host plant, prickly bush (<i>Oplonia spinosa</i>), in the project areas and the need to avoid harming the species and its occupied host plant. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act. Educational material (e.g., posters, flyers, or signs with photos or illustrations of all the life stages of the PR harlequin butterfly (i.e., eggs, caterpillar, chrysalis, and adult) as well as its host plant, should be prepared and available to all personnel for reference. 2. Before starting any project activity, including removal of vegetation and earth movement, the boundaries of the work area in the field clearly delineate to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the PR harlequin butterfly (all life stages) and the prickly bush must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the PR harlequin butterfly can be observed year-round in all its life stages; thus, oviposition (egg-laying) may occur at any time during the year. 3. If the prickly bush is present on the project site, try to avoid cutting it off, even if no eggs, caterpillars, or chrysalis are present. 4. If there is no prickly bush within the project area, and the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species. 5. Adult butterflies are often observed flying near the host plant as part of their mating behavior and laying eggs. Project-related activities must stop if the prickly bush is found in the project area and the
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	<p>PR harlequin butterfly is observed flying in that same area where the plan is located. A temporary 50-meter (164 feet) buffer zone of no activity or human disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.</p> <p>6. Once the PR harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean_es@fws.gov after the 36-hour search is concluded.</p> <p>7. If, after the initial search or after the 24 to 36-hour search, any life stage of the PR harlequin butterfly is found in the prickly bush, take the following actions:</p> <ul style="list-style-type: none"> o Clearly mark the host plant with flagging tape. <p>February 2024</p> <ul style="list-style-type: none"> o Establish a 10-meter (32-foot) buffer zone around the bush to protect it. o Eggs are typically found on the prickly bush's newly grown, tender branches. Once an egg hatches, the caterpillar moves and feeds throughout the plant. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present. o Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days. <p>8. For all PR harlequin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All PR harlequin butterfly sighting reports should be sent to the U.S. Fish and Wildlife Service, Caribbean Ecological Service Field Office at caribbean_es@fws.gov.</p> <p>9. For questions regarding the PR harlequin butterfly, the Point of Contact is: • José Cruz-Burgos, Threatened and Endangered Species Program Coordinator:</p>
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	<ul style="list-style-type: none"> o Mobile: 305-304-1386 o Office phone: 786-244-0081 o Office Direct Line: 939-320-3120 o Email: jose_cruz-burgos@fws.gov
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	If historic properties are discovered, unanticipated effects on historic properties are found, or cultural materials are encountered, work should cease in the immediate area; work can continue where no historic properties or cultural materials are present. Please contact PRDOH to consult on further actions that may be necessary to protect historic properties or cultural materials.
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	<p>The proposed action is continued agricultural use of property, which is compatible with the existing land use.</p> <p>The applicant and/or construction manager is required to obtain any necessary local and territorial building and environmental permits prior to construction activities commencing.</p>
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	<p>Soil suitability will be assessed prior to construction. Contractors will be required to use best management practices during construction.</p> <p>DNER authorization is required for any extraction, removal, excavation, and dredging of the components of the earth's crust.</p>
Vegetation, Wildlife	DNER authorization is required for tree clearing or pruning. The landowner and/or the contractor will contact the Permit Management Office to determine permits and authorizations required prior to construction.
Hazards and Nuisances including Site Safety and Noise	<p>Contractors will be required to provide health and safety plans and monitoring during construction.</p> <p>Contractors will be required to comply with the applicable local noise ordinances.</p> <p>Noise impacts will be mitigated by restricting construction activities to daylight hours and to the hours established in the Regulation for Noise Control and Pollution in Puerto Rico.</p>
Solid Waste Disposal / Recycling	All construction debris will be disposed of at the proper facilities for the debris type (i.e. construction waste).

Water Supply	The applicant is required to obtain authorization or permits from Prasa and/or AAA prior to expanding water connections.
Energy Consumption	The applicant is required to obtain authorization or permits from Luma/and or GENERA prior to expanding electrical connections.

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: 8/27/2025

Name/Title/Organization: Heath Anderson, Ph.D, Deputy Program Manager

SWCA Environmental Consultants

Certifying Officer Signature: _____ Date: 08/28/2025

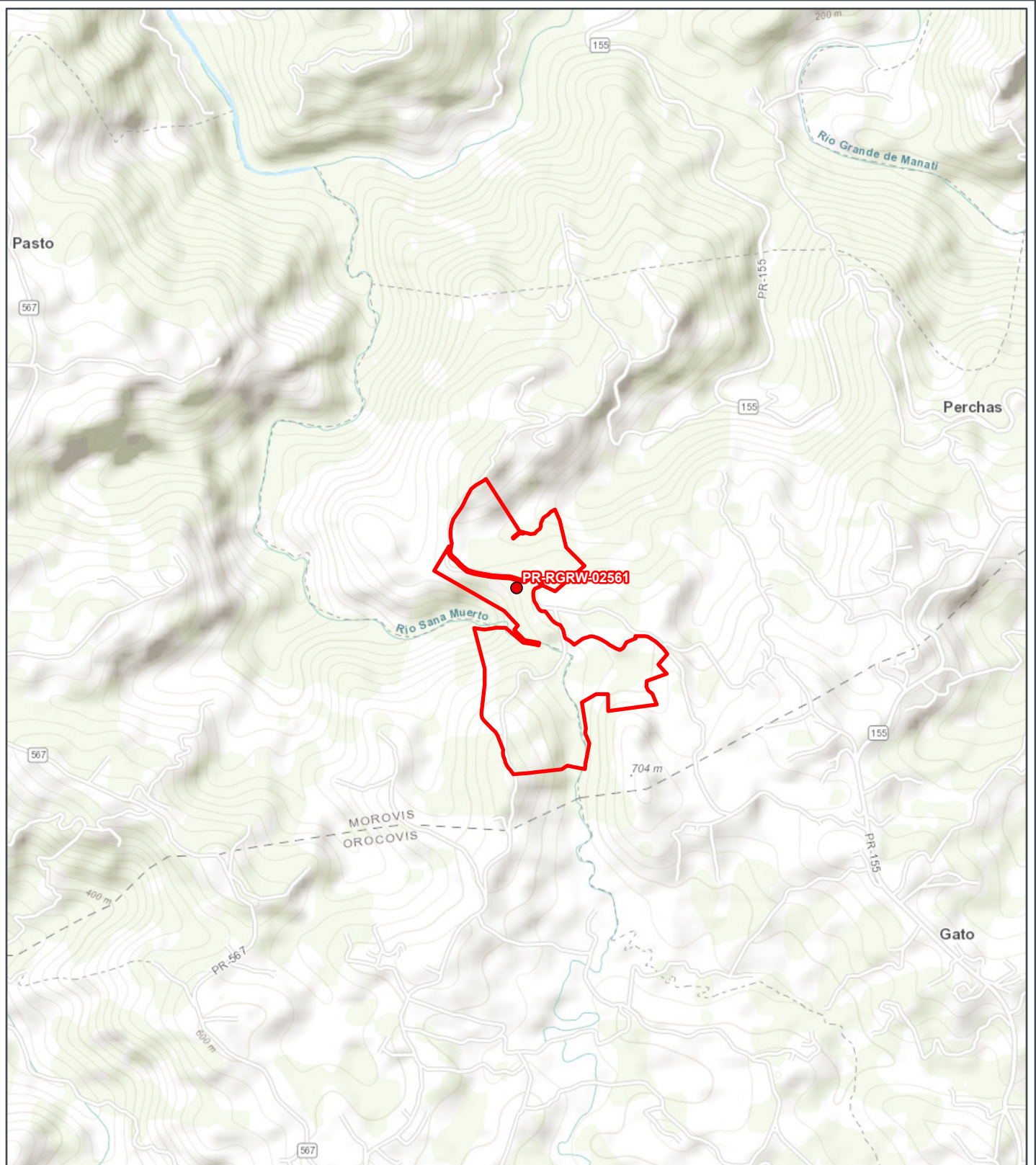
Name/Title: Javier Mercado Barrera / Permits and Environmental Compliance Specialist / PRDOH

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

Project Overview Figures

Figure 1
Site Location Map



REGROW PROGRAM

Figure A-1: Site Location

Applicant ID: PR-RGRW-02561

SWCA[®]
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel

Morovis, Puerto Rico 00687

Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Base Map: ESRI ArcGIS Online,
accessed June 2024
Updated: 6/19/2024
Layout: Site Location
Aprx: 72428_ReGrowTier2Maps

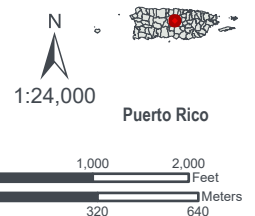
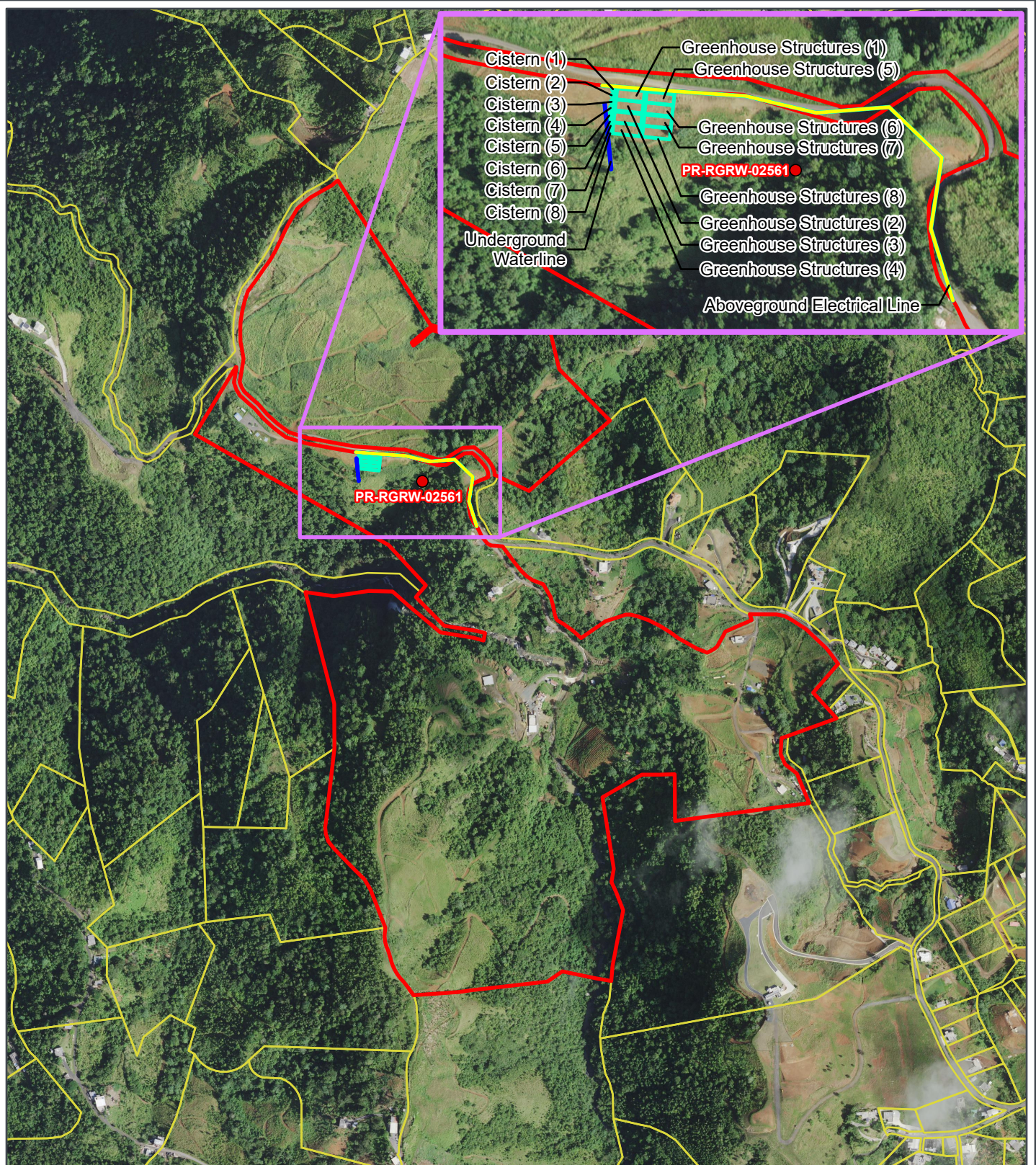


Figure 2
Site Vicinity Map



REGROW PROGRAM

Figure A-2: Site Vicinity

Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Underground Waterline
- Above Ground Utilities Location

Morovis, Puerto Rico 00687

Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Base Map: USA NAIIP Imagery
Imagery Year: 2022
Updated: 10/2/2024

Layout: Project Footprint
Aprx: 72428_ReGrowTier2Maps

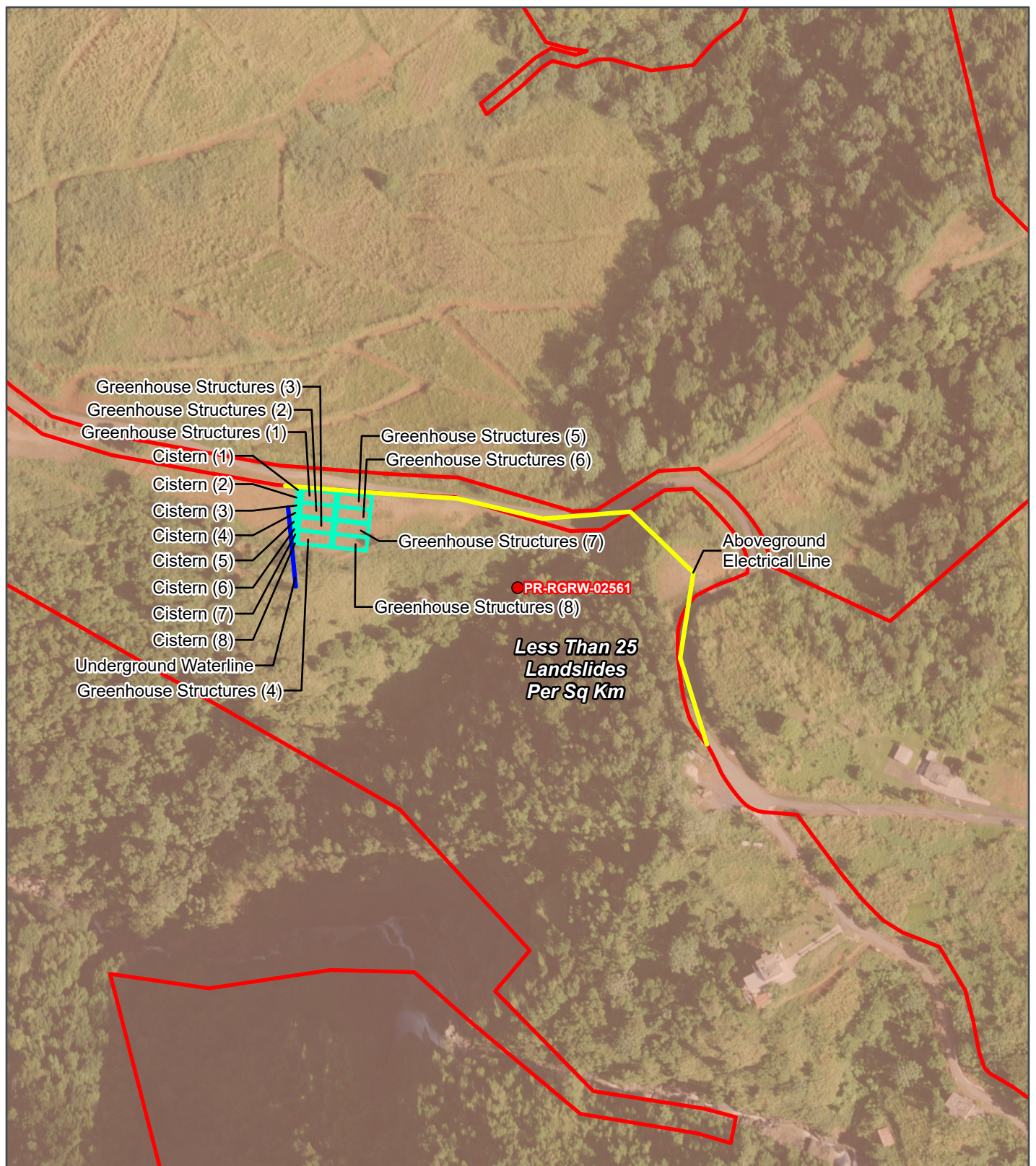
N
1:8,700



Puerto Rico



Figure 3
USGS Landslide Map



REGROW PROGRAM

Figure A-3: USGS Landslide Map

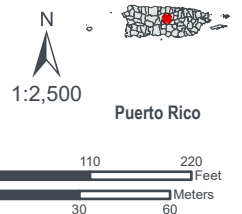
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Underground Waterline
- Above Ground Utilities Location
- Greater than 25 Landslides per sq km
- Less than 25 Landslides per sq km
- No Landslides
- Not Examined

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: https://arcgis.cuahsi.org/arcgis/rest/services/MariaRAPID/Hurricane_Maria_Landslides/MapServer
Base Map: USA NAIP Imagery
Imagery Year: 2022
Updated: 10/2/2024
Layout: Landslide



Appendix B

Attachments and Supporting Documentation

Attachment 1

Airport Hazards Partner Worksheet and

Airport Hazards Map



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Airport Hazards (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/airport-hazards>

- 1. To ensure compatible land use development, you must determine your site’s proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?**

☒ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within the applicable distances to a military or civilian airport.*

☐ Yes → *Continue to Question 2.*

- 2. Is your project located within a Runway Potential Zone/Clear Zone (RPZ/CZ) or Accident Potential Zone (APZ)?**

☐ Yes, project is in an APZ → *Continue to Question 3.*

☐ Yes, project is an RPZ/CZ → *Project cannot proceed at this location.*

☐ No, project is not within an APZ or RPZ/CZ

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Continue to the Worksheet Summary below. Provide a map showing that the site is not within either zone.*

- 3. Is the project in conformance with DOD guidelines for APZ?**

☐ Yes, project is consistent with DOD guidelines without further action.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

☐ No, the project cannot be brought into conformance with DOD guidelines and has not been approved. → *Project cannot proceed at this location.*

If mitigation measures have been or will be taken, explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

[Click here to enter text.](#)

→ Work with the RE/HUD to develop mitigation measures. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project site is not within 2,500 ft of a civil primary or commercial service airport or within 15,000 ft of a military airport. The nearest civil primary or commercial service airport, Mercedita International Airport, is located 107,834 ft (20 miles) southwest of the project site. The nearest military airport, Luis Munoz Marin International Airport, is located 151,026 ft (29 miles) northeast of the project site. No further evaluation is required. The project is in compliance with airport hazards requirements.



REGROW PROGRAM

Figure B 1-1: Airport Hazards Map

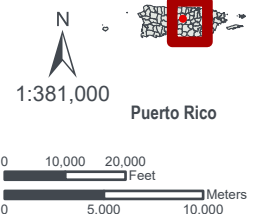
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- ▭ Airport Runway
- ▭ Accident Potential Zones (APZ)
- ▭ Runway Protection Zones (RPZ)
- ▭ 2,500-FT Civil Airport Buffer
- ▭ 15,000-FT Military Airport Buffer

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://geodata.bts.gov/>
Base Map: ESRI ArcGIS Online,
accessed May 2024
Updated: 5/17/2024
Layout: Airport Hazards
Aprx: 72428_ReGrowTier2Maps



Attachment 2

Coastal Barrier Resources Act Partner Worksheet and Coastal Barrier Resources Map



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Coastal Barrier Resources (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/coastal-barrier-resources>

Projects located in the following states must complete this form.

Alabama	Georgia	Massachusetts	New Jersey	Puerto Rico	Virgin Islands
Connecticut	Louisiana	Michigan	New York	Rhode Island	Virginia
Delaware	Maine	Minnesota	North Carolina	South Carolina	Wisconsin
Florida	Maryland	Mississippi	Ohio	Texas	

1. Is the project located in a CBRS Unit?

☒ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a CBRS Unit.*

☐ Yes → *Continue to 2.*

Federal assistance for most activities may not be used at this location. You must either choose an alternate site or cancel the project. In very rare cases, federal monies can be spent within CBRS units for certain exempted activities (e.g., a nature trail), after consultation with the Fish and Wildlife Service (FWS) (see [16 USC 3505](#) for exceptions to limitations on expenditures).

2. Indicate your recommended course of action for the RE/HUD

- ☐ Consultation with the FWS
- ☐ Cancel the project

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project site is not located in a Coastal Barrier Resource Systems Unit (CBRS) or Otherwise Protected Area (OPA). There are no CBRS units in Morovis. The closest CBRS unit, Tortuguero, is located 66,839 ft



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

(13 miles) north of the project site. No further evaluation is required. The project is in compliance with the Coastal Barrier Resources Act.



REGROW PROGRAM

Figure B 2-1: Coastal Barrier Resources Map

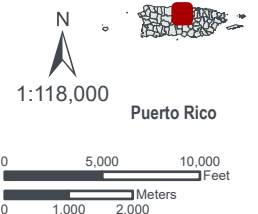
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Otherwise Protected Area
- System Unit

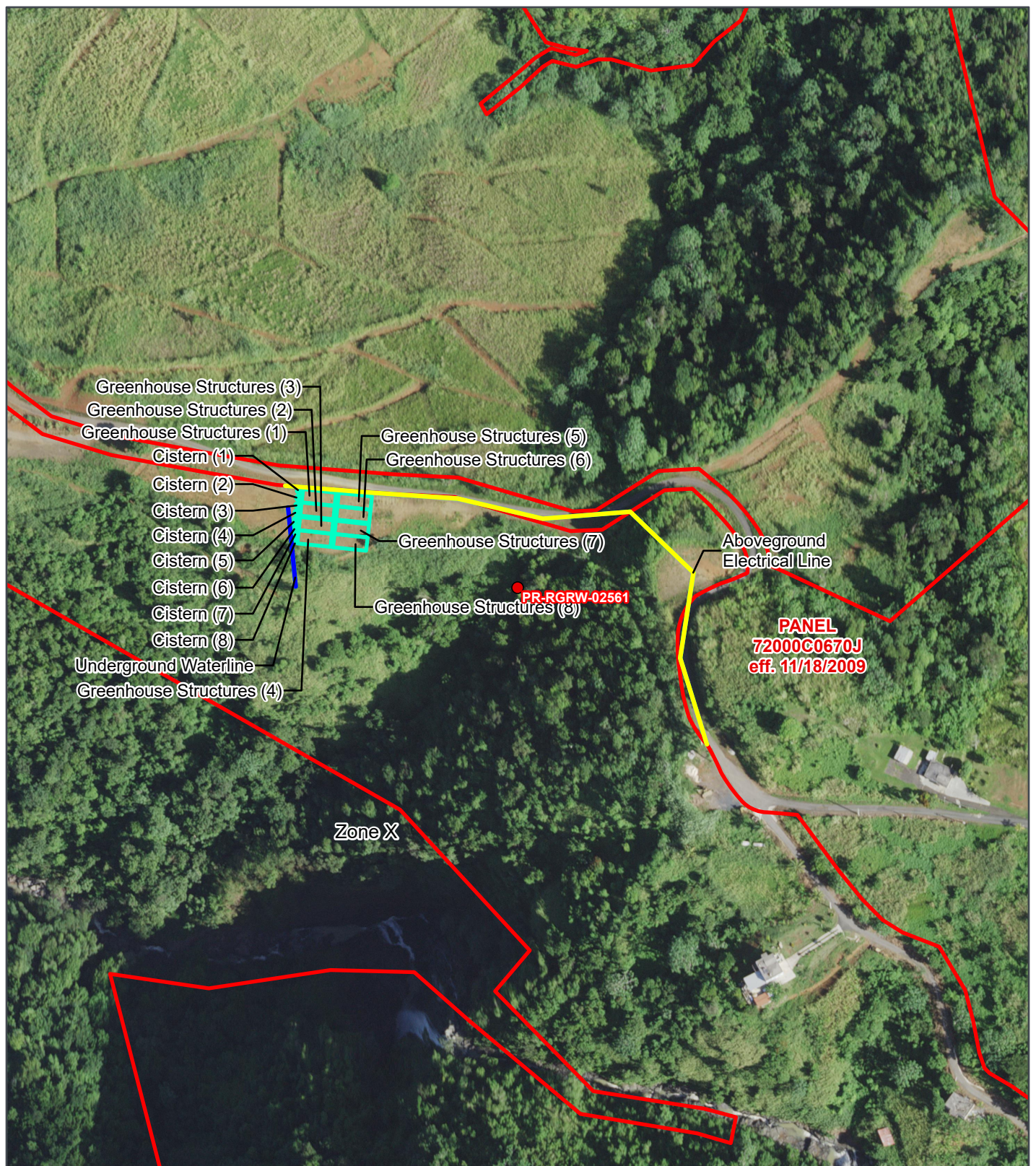
Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://cbrsgis.wim.usgs.gov/arcgis/rest/services/CoastalBarrierResourcesSystem/MapServer>
Base Map: ESRI ArcGIS Online, accessed May 2024
Updated: 5/17/2024
Layout: Coastal Barrier Resources System



Attachment 3

**Flood Insurance Partner Worksheet and
Flood Insurance Rate Map**



REGROW PROGRAM

Figure B 3-1: Flood Insurance Rate Map (FIRM)

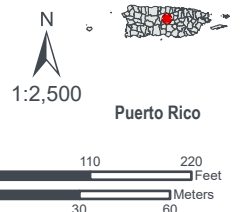
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Underground Waterline
- Above Ground Utilities Location
- Base Flood Elevations
- Zone A
- Zone AE
- Zone AH
- Zone AO
- Zone VE
- Floodway
- Zone X - Shaded (500-year floodplain)
- Zone X - Unshaded
- Area Not Included
- Open Water

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://hazards.fema.gov/gis/nfhl/rest/services/public/NFHL/MapServer>
Base Map: USA NAIP Imagery
Imagery Year: 2022
Updated: 10/2/2024
Layout: Effective Floodplain
Aprx: 72428_ReGrowTier2Maps



Attachment 4

Air Quality Partner Worksheet, List of Non-Attainment/Maintenance Status Counties in Puerto Rico, and Clean Air Map



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Air Quality (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/air-quality>

1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?

☒ Yes → Continue to Question 2.

☐ No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide any documents used to make your determination.

2. Is your project’s air quality management district or county in non-attainment or maintenance status for any criteria pollutants?

Follow the link below to determine compliance status of project county or air quality management district:

<http://www.epa.gov/oaqps001/greenbk/>

☒ No, project’s county or air quality management district is in attainment status for all criteria pollutants

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

☐ Yes, project’s management district or county is in non-attainment or maintenance status for one or more criteria pollutants. → Continue to Question 3.

3. Determine the estimated emissions levels of your project for each of those criteria pollutants that are in non-attainment or maintenance status on your project area. Will your project exceed any of the *de minimis* or *threshold* emissions levels of non-attainment and maintenance level pollutants or exceed the screening levels established by the state or air quality management district?

☐ No, the project will not exceed *de minimis* or threshold emissions levels or screening levels

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Explain how you determined that the project would not exceed *de minimis* or threshold emissions.

☐ Yes, the project exceeds *de minimis* emissions levels or screening levels.

→ *Continue to Question 4. Explain how you determined that the project would not exceed de minimis or threshold emissions in the Worksheet Summary.*

- 4. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.**

[Click here to enter text.](#)

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project site is in Morovis Municipio, which is within a U.S. Environmental Protection Agency (USEPA) designated attainment area. Municipios in nonattainment or maintenance areas include Arecibo, Bayamon, Catano, Guaynabo, Salinas, San Juan, and Toa Baja. Project activities include the purchase and installation of eight (8) new hydroponic greenhouses, (8) cisterns, and associated equipment. The project is not anticipated to have a negative impact on air quality. Emissions associated with the proposed project are temporary and limited to the use of small construction equipment and will be well below the Federal General Conformity Rule *de minimis* thresholds. No further evaluation is required. The project is in compliance with the Clean Air Act.



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 28, 2023

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

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

Change the State:

PUERTO RICO

GO

Important Notes

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

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

Important Notes

Discover.

Connect.

Ask.

Follow.

2023-02-28



REGROW PROGRAM

Figure B 4-1: Clean Air Map

Applicant ID: PR-RGRW-02561

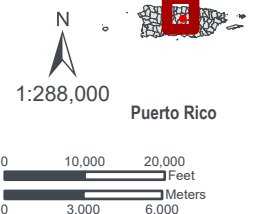
SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- ▨ 8-Hour Ozone (2015 Standard)*
- Lead (2008 Standard)
- PM-2.5 (2012 Standard)*
- Sulfur Dioxide (2010 Standard)

*No Data in Puerto Rico

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: https://geopub.epa.gov/arcgis/rest/services/NEPAAssist/NEPAVELayersPublic_fgdb/MapServer
Base Map: ESRI ArcGIS Online, accessed May 2024
Updated: 5/17/2024
Layout: Clean Air
Aprx: 72428_ReGrowTier2Maps



Attachment 5

Coastal Zone Management Partner Worksheet and Coastal Zone Map



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Coastal Zone Management Act (CEST and EA) – PARTNER

<https://www.onecpd.info/environmental-review/coastal-zone-management>

Projects located in the following states must complete this form.

Alabama	Florida	Louisiana	Mississippi	Ohio	Texas
Alaska	Georgia	Maine	New Hampshire	Oregon	Virgin Islands
American Samoa	Guam	Maryland	New Jersey	Pennsylvania	Virginia
California	Hawaii	Massachusetts	New York	Puerto Rico	Washington
Connecticut	Illinois	Michigan	North Carolina	Rhode Island	Wisconsin
Delaware	Indiana	Minnesota	Northern Mariana Islands	South Carolina	

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

☐ Yes → Continue to Question 2.

☒ No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a Coastal Zone.

2. Does this project include activities that are subject to state review?

☐ Yes → Continue to Question 3.

☐ No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.

3. Has this project been determined to be consistent with the State Coastal Management Program?

☐ Yes, with mitigation. → The RE/HUD must work with the State Coastal Management Program to develop mitigation measures to mitigate the impact or effect of the project.

☐ Yes, without mitigation. → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.

☐ No → Project cannot proceed at this location.

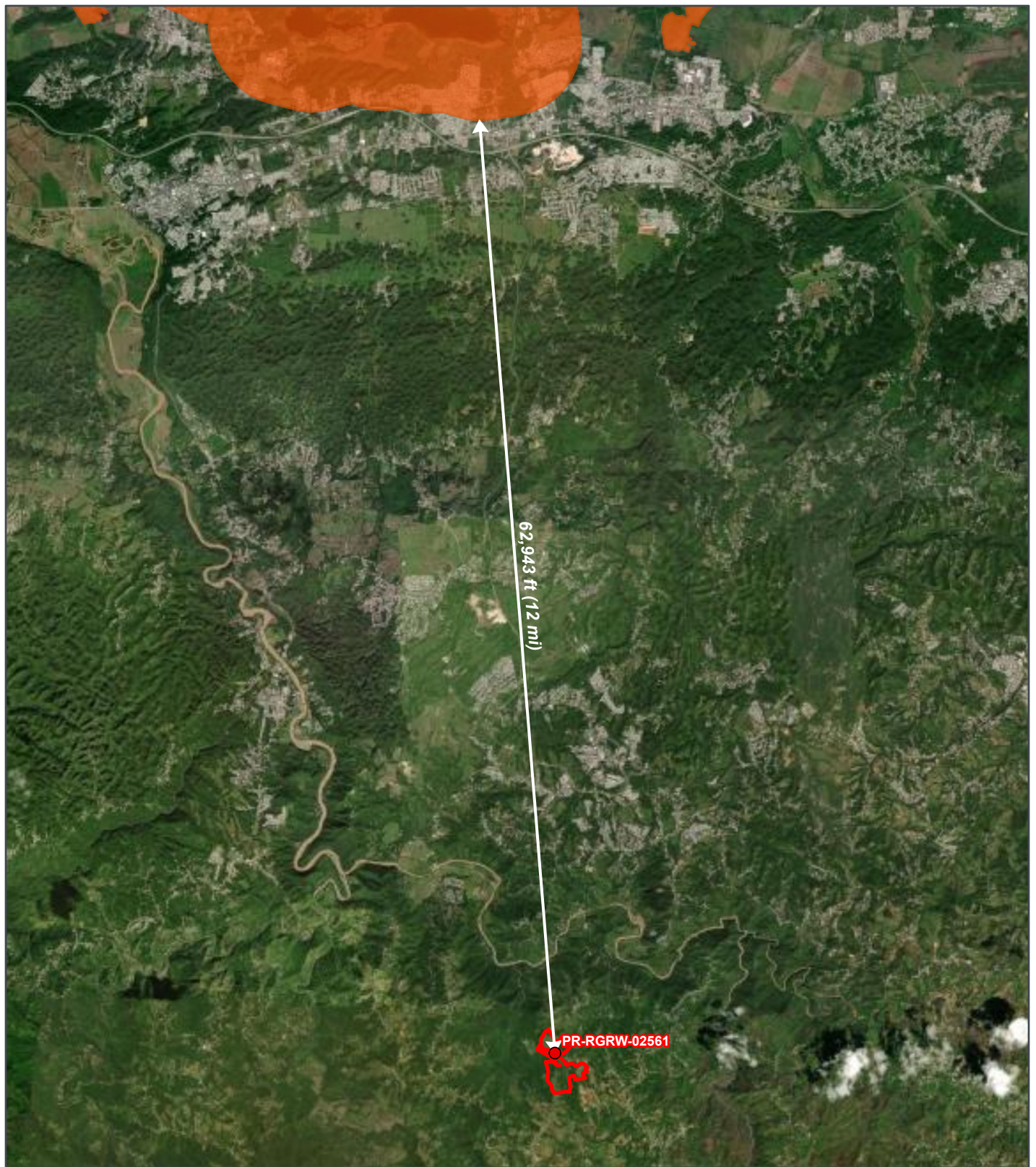
Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project site is not located within the Puerto Rico Coastal Management Zone. The closest coastal zone area is located 62,943 ft (12 miles) from the project site. No further evaluation is required. The project is in compliance with the Coastal Zone Management Act.



REGROW PROGRAM

Figure B 5-1: Coastal Zone Management Map

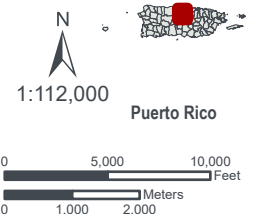
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Coastal Management Zone

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: [https://coast.noaa.gov/arcgis/rest/services/Hosted/CoastalZoneManagementAct/Base Map](https://coast.noaa.gov/arcgis/rest/services/Hosted/CoastalZoneManagementAct/Base%20Map): ESRI ArcGIS Online, accessed May 2024
Updated: 5/17/2024
Layout: Coastal Zone Management
Aprx: 72428_ReGrowTier2Maps



Attachment 6

Contamination and Toxics Substances Partner Worksheet and Toxics, Radon Agency Correspondence and Memorandum, and Contamination Map



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Contamination and Toxic Substances (Multifamily and Non-Residential Properties) – PARTNER

<https://www.hudexchange.info/programs/environmental-review/site-contamination>

1. How was site contamination evaluated? ¹ Select all that apply.

- ☐ ASTM Phase I ESA
- ☐ ASTM Phase II ESA
- ☐ Remediation or clean-up plan
- ☐ ASTM Vapor Encroachment Screening
- ☒ None of the above

→ Provide documentation and reports and include an explanation of how site contamination was evaluated in the Worksheet Summary.

Continue to Question 2.

2. Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)

- ☒ No → Explain below.

The project site was evaluated for potential contamination by conducting a field site inspection on September 21, 2023 to identify any onsite hazards including, but not limited to, soil staining, above ground storage tanks, signs of underground storage tanks, odors, hazardous debris etc. The site inspection did not identify any onsite hazards, stained soil or vegetation and the project is in compliance with contamination and toxic substances requirements.

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

¹ HUD regulations at 24 CFR § 58.5(i)(2)(ii) require that the environmental review for multifamily housing with five or more dwelling units or non-residential property include the evaluation of previous uses of the site or other evidence of contamination on or near the site. For acquisition and new construction of multifamily and nonresidential properties HUD strongly advises the review include an ASTM Phase I Environmental Site Assessment (ESA) to meet real estate transaction standards of due diligence and to help ensure compliance with HUD’s toxic policy at 24 CFR §58.5(i) and 24 CFR §50.3(i). Also note that some HUD programs require an ASTM Phase I ESA.

☐ Yes → *Describe the findings, including any recognized environmental conditions (RECs), in Worksheet Summary below. Continue to Question 3.*

3. Can adverse environmental impacts be mitigated?

☐ Adverse environmental impacts cannot feasibly be mitigated → HUD assistance may not be used for the project at this site. Project cannot proceed at this location.

☐ Yes, adverse environmental impacts can be eliminated through mitigation.
→ *Provide all mitigation requirements² and documents. Continue to Question 4.*

4. Describe how compliance was achieved. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls³, or use of institutional controls⁴.

[Click here to enter text.](#)

If a remediation plan or clean-up program was necessary, which standard does it follow?

- ☐ Complete removal
- ☐ Risk-based corrective action (RBCA)

→ *Continue to the Worksheet Summary.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project site was evaluated for potential contamination by conducting a field site inspection on September 21, 2023 to identify any onsite hazards including, but not limited to, soil staining, above ground storage tanks, signs of underground storage tanks, odors, hazardous debris etc. The site

² Mitigation requirements include all clean-up actions required by applicable federal, state, tribal, or local law. Additionally, provide, as applicable, the long-term operations and maintenance plan, Remedial Action Work Plan, and other equivalent documents.

³ Engineering controls are any physical mechanism used to contain or stabilize contamination or ensure the effectiveness of a remedial action. Engineering controls may include, without limitation, caps, covers, dikes, trenches, leachate collection systems, signs, fences, physical access controls, ground water monitoring systems and ground water containment systems including, without limitation, slurry walls and ground water pumping systems.

⁴ Institutional controls are mechanisms used to limit human activities at or near a contaminated site, or to ensure the effectiveness of the remedial action over time, when contaminants remain at a site at levels above the applicable remediation standard which would allow for unrestricted use of the property. Institutional controls may include structure, land, and natural resource use restrictions, well restriction areas, classification exception areas, deed notices, and declarations of environmental restrictions.

inspection did not identify any onsite hazards, stained soil or vegetation and the project is in compliance with contamination and toxic substances requirements.

The project does not involve any occupied structures, and therefore, is exempt from considering radon as part of the site contamination analysis as per HUD Notice CDP- 23-103.

In addition, a desktop review of USEPA databases, NEPAAssist, and other sources was conducted to determine if the project site was located near dump sites, junk yards, landfills, hazardous waste sites, or industrial sites, including USEPA National Priorities List Sites (Superfund sites), CERCLA or state-equivalent sites, RCRA Corrective Action sites with release(s) or suspected release(s) requiring clean-up action and/or further investigation. The parcel has been used for agricultural purposes and there has been no change in land use in the last 20 years. The project is located in a rural area of Morovis Municipio and will continue to be used for agricultural purpose.

The desktop review did not find any of the above-listed toxic, hazardous or radioactive substances in or within 3,000 ft of the project area. The project is in compliance with contamination and toxic substances requirements.

Radon Attachments



GOVERNMENT OF PUERTO RICO
DEPARTMENT OF HOUSING

Memorandum to File

Date: September 30, 2024

From: Heath Anderson, Ph.D.
Deputy Program Manager
CDBG-DR Program
Re-Grow PR Urban-Rural Agriculture Program, Grant number B-17-DM-72-0001 &
B-18-DP-72-0001
Puerto Rico Department of Housing

Application Number: PR-RGRW-02561

Project: Más Fresco Que Fresco LLC

Re: Justification for the Infeasibility and Impracticability of Radon Testing

After reviewing Application Number PR-RGRW-02561 under the Re-Grow PR Urban-Rural Agriculture Program, administered by the Puerto Rico Department of Housing (**PRDOH**), to complete the property's contamination analysis in accordance with 24 C.F.R. § 50.3(i) and 24 C.F.R. § 58.5(i), we have determined that testing the property's radon levels is infeasible and impracticable.

Per the U.S. Department of Housing and Urban Development's (**HUD**) CPD Notice 23-103, the recommended best practices and alternative options for radon testing are infeasible and impracticable in this case due to the following reasons:

- As required by the CPD Notice 23-103, the scientific data reviewed in lieu of testing must consist of a minimum of ten documented test results over the previous ten years. If there are less than ten documented results over this period, it is understood that there is a lack of scientific data. The latest report for radon testing in Puerto Rico was prepared in 1995 by the U.S. Department of the Interior in Cooperation with the U.S. Environmental Protection Agency. No other completed studies and reports on radon testing are available in Puerto Rico.
- There is no available science-based or state-generated information for Puerto Rico for the last ten years that can be used to determine whether the project site is in a high-risk area. The Department of Health and Human Services, Centers for

Disease Control and Prevention (**CDC**), National Environmental Public Health Tracking, and Radon Testing map do not include Puerto Rico data.

- There are only two (2) licensed professionals in Puerto Rico who can conduct radon testing using the American National Standards Institute/American Association of Radon Scientists and Technologists (**ANSI/AARST**) testing standards, which makes it difficult, time-consuming, and highly expensive to coordinate and secure a site visit for the contamination evaluation.
- Do-it-yourself (**DIY**) radon test kits are known to be unreliable in assuring and controlling the quality of the test results; they are not readily available in Puerto Rico, and the cost and time required for purchasing and sending them for analysis are unreasonable when weighed against the results' reliability and the need for prompt results.
- Local authorities in Puerto Rico do not have the specialized radon monitoring equipment or trained staff needed to conduct the radon testing analysis and ensure proper quality control and quality assurance practices are adhered to. We also do not have a radiation laboratory certified for radon testing.

As part of the evaluation for this determination, PRDOH sent information requests to six (6) local agencies at the state and federal levels. We received responses from the following agencies:

- United States Geological Survey;
- Centers for Disease Control and Prevention;
- Puerto Rico Department of Health; and
- United States Environmental Protection Agency.

The agencies mentioned above confirmed the lack of scientific data on Radon testing for Puerto Rico and the technical difficulties that we face to comply with HUD's Radon testing requirement. For the above-mentioned reasons, Radon testing is infeasible and impracticable for this property, and no further consideration of Radon is needed for the environmental review.



August 20, 2024

Mrs. Carmen R. Guerrero Pérez
Director
Caribbean Environmental Protection Division
City View Plaza II – Suite 7000
#48 Rd. 165 km 1.2
Guaynabo, PR 00968-8069

Via email: guerrero.carmen@epa.gov

RE: Request for Information regarding available data on radon testing and levels within Puerto Rico

The Puerto Rico Department of Housing (PRDOH) kindly requests your assistance in gathering data, information, or reports related to radon testing in Puerto Rico, as this information is crucial for our compliance with the U.S. Department of Housing and Urban Development (HUD) Community Planning and Development (CPD) Notice CDP-23-103.

This Notice emphasizes the importance of radon testing and mitigation in ensuring safe living environments, particularly in HUD-assisted properties. PRDOH, as the grantee of the Community Development Block Grant for Disaster Recovery and Mitigation (CDBG-DR/MIT), is responsible for ensuring compliance with environmental requirements under CDBG-DR/MIT programs. To fulfill our obligations under this Notice, we must compile comprehensive and up-to-date information on radon levels, testing practices, and any mitigation efforts within the islands of Puerto Rico.

Specifically, we are seeking for possible availability of the following information:

Radon testing data – Results from radon testing conducted within your agency's purview, including details on location, testing methods, and recorded radon levels.

Barbosa Ave. #606, Building Juan C. Cordero Davila, Rio Piedras, PR 00981 | PO Box 21365 San Juan, PR 00928-1365
Tel: (787) 274-2527 | www.usenda.pr.gov



August 20, 2024

Dr. Silvina Cancelos
Professor
College of Engineering
University of Puerto Rico – Mayagüez Campus
259 Norte Blvd. Alfonso Valdés Cobián
Mayagüez, Puerto Rico

Via email: silvina.cancelos@upr.edu

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Barbosa Ave. #606, Building Juan C. Cordero Davila, Rio Piedras, PR 00981 | PO Box 21365 San Juan, PR 00928-1365
Tel: (787) 274-2527 | www.usenda.pr.gov

Reports and assessments – Any reports, studies, or assessments your agency has produced or commissioned that address radon testing or mitigation.

Policies and guidelines – Information or any policy, guideline, or protocol your agency follows concerning radon testing, exposure limits, or mitigation.

Historical data – If available, historical data or trends in radon levels within the regions you monitor that may impact HUD-assisted housing.

This information is vital to ensure that our radon management strategies are practical and compliant with federal requirements. If some of this information may be sensitive or confidential, we are prepared to discuss any necessary agreements or protocols for sharing this data securely.

Please let us know if you require additional details or have any questions regarding this request. We would greatly appreciate your response by September 15, 2024, so we can incorporate this data into our ongoing compliance efforts.

Thank you in advance for your cooperation and support. We look forward to working together on this critical initiative.

Sincerely,

William O. Rodríguez Rodríguez, Esq.
Secretary

Cc:

Mr. Oleg Pavetko, Pavetko.Oleg@epa.gov
Mr. Matthew Laitila, laitila.matthew@epa.gov

Reports and assessments – Any reports, studies, or assessments your agency has produced or commissioned that address radon testing or mitigation.

Policies and guidelines – Information or any policy, guideline, or protocol your agency follows concerning radon testing, exposure limits, or mitigation.

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Thank you in advance for your cooperation and support. We look forward to working together on this critical initiative.

Sincerely,

William O. Rodríguez Rodríguez, Esq.
Secretary

Cc:

Dr. Carlos Marín, carlos.marin3@upr.edu



August 20, 2024

Dr. Jessica Izárry
Director
Office of Island Affairs
U.S. Centers for Disease Control and Prevention
1324 Cll Canada, San Juan, 00920
Guaynabo, PR 00968-8069

Via email: OIA@cdc.gov

RE: Request for Information regarding available data on radon testing and levels within Puerto Rico

The Puerto Rico Department of Housing (PRDOH) kindly requests your assistance in gathering data, information, or reports related to radon testing in Puerto Rico, as this information is crucial for our compliance with the U.S. Department of Housing and Urban Development (HUD) Community Planning and Development (CPD) Notice CDP-23-103.

This Notice emphasizes the importance of radon testing and mitigation in ensuring safe living environments, particularly in HUD-assisted properties. PRDOH, as the grantee of the Community Development Block Grant for Disaster Recovery and Mitigation (CDBG-DR/MIT), is responsible for ensuring compliance with environmental requirements under CDBG-DR/MIT programs. To fulfill our obligations under this Notice, we must compile comprehensive and up-to-date information on radon levels, testing practices, and any mitigation efforts within the islands of Puerto Rico.

Specifically, we are seeking for possible availability of the following information:

Radon testing data – Results from radon testing conducted within your agency's purview, including details on location, testing methods, and recorded radon levels.

Barbosa Ave. #606, Building Juan C. Cordero Dávila, Río Piedras, PR 00918 | PO Box 21365 San Juan, PR 00928-1365
Tel. (787) 274-2527 | www.viviendap.rg.pr.gov

CDBG-DR/MIT Program
Request for Information in relation with HUD CPD-23-103 for Puerto Rico
Page 2 / 2

Reports and assessments – Any reports, studies, or assessments your agency has produced or commissioned that address radon testing or mitigation.

Policies and guidelines – Information or any policy, guideline, or protocol your agency follows concerning radon testing, exposure limits, or mitigation.

Historical data – If available, historical data or trends in radon levels within the regions you monitor that may impact HUD-assisted housing.

This information is vital to ensure that our radon management strategies are practical and compliant with federal requirements, if some of this information may be sensitive or confidential, we are prepared to discuss any necessary agreements or protocols for sharing this data securely.

Please let us know if you require additional details or have any questions regarding this request. We would greatly appreciate your response by September 15, 2024, so we can incorporate this data into our ongoing compliance efforts.

Thank you in advance for your cooperation and support. We look forward to working together on this critical initiative.

Sincerely,


William O. Rodríguez Rodríguez, Esq.
Secretary



August 20, 2024

Mrs. Anais Rodríguez
Secretary
Puerto Rico Department of Natural Resources
Carretera 8838, km. 6.3, Sector El Cinco,
Río Piedras San Juan, PR 00926

Via email: anais.rodriguez@dma.pr.gov

RE: Request for Information regarding available data on radon testing and levels within Puerto Rico

The Puerto Rico Department of Housing (PRDOH) kindly requests your assistance in gathering data, information, or reports related to radon testing in Puerto Rico, as this information is crucial for our compliance with the U.S. Department of Housing and Urban Development (HUD) Community Planning and Development (CPD) Notice CDP-23-103.

This Notice emphasizes the importance of radon testing and mitigation in ensuring safe living environments, particularly in HUD-assisted properties. PRDOH, as the grantee of the Community Development Block Grant for Disaster Recovery and Mitigation (CDBG-DR/MIT), is responsible for ensuring compliance with environmental requirements under CDBG-DR/MIT programs. To fulfill our obligations under this Notice, we must compile comprehensive and up-to-date information on radon levels, testing practices, and any mitigation efforts within the islands of Puerto Rico.

Specifically, we are seeking for possible availability of the following information:

Radon testing data – Results from radon testing conducted within your agency's purview, including details on location, testing methods, and recorded radon levels.

Reports and assessments – Any reports, studies, or assessments your agency has produced or commissioned that address radon testing or mitigation.

Barbosa Ave. #606, Building Juan C. Cordero Dávila, Río Piedras, PR 00918 | PO Box 21365 San Juan, PR 00928-1365
Tel. (787) 274-2527 | www.viviendap.rg.pr.gov

CDBG-DR/MIT Program
Request for Information in relation with HUD CPD-23-103 for Puerto Rico
Page 2 / 2

Policies and guidelines – Information or any policy, guideline, or protocol your agency follows concerning radon testing, exposure limits, or mitigation.

Historical data – If available, historical data or trends in radon levels within the regions you monitor that may impact HUD-assisted housing.

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Sincerely,


William O. Rodríguez Rodríguez, Esq.
Secretary

Cc: Mr. Luis Márquez, secretariogaire@dma.pr.gov
Eng. Amarilis Rosario, aire@dma.pr.gov
Mrs. Elid Ortega, ortega@dma.pr.gov



GOVERNMENT OF PUERTO RICO
DEPARTMENT OF HOUSING

August 20, 2024

Dr. Carlos R. Mellado López
Secretary
Puerto Rico Department of Health
PO Box 70184
San Juan, PR 00936-8184

Via email: dr.carlos.mellado@salud.pr.gov

RE: Request for Information regarding available data on radon testing and levels within Puerto Rico

The Puerto Rico Department of Housing (PRDOH) kindly requests your assistance in gathering data, information, or reports related to radon testing in Puerto Rico, as this information is crucial for our compliance with the U.S. Department of Housing and Urban Development (HUD) Community Planning and Development (CPD) Notice CDP-23-103.

This Notice emphasizes the importance of radon testing and mitigation in ensuring safe living environments, particularly in HUD-assisted properties. PRDOH, as the grantee of the Community Development Block Grant for Disaster Recovery and Mitigation (CDBG-DR/MIT), is responsible for ensuring compliance with environmental requirements under CDBG-DR/MIT programs. To fulfill our obligations under this Notice, we must compile comprehensive and up-to-date information on radon levels, testing practices, and any mitigation efforts within the Islands of Puerto Rico.

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Barbosa Ave. #606, Building Juan C. Cordero Dávila, Río Piedras, PR 00981 | PO Box 21365 San Juan, PR 00928-1365
Tel. (787) 274-2527 | www.cdh.pr.gov



GOVERNMENT OF PUERTO RICO
DEPARTMENT OF HOUSING

August 20, 2024

Mrs. Holly Weyers
Regional Director, Southeast – Puerto Rico
US Geological Survey
3916 Sunset Ridge Road
Raleigh, NC 27607

Via email: hweyers@usgs.gov

RE: Request for Information regarding available data on radon testing and levels within Puerto Rico

The Puerto Rico Department of Housing (PRDOH) kindly requests your assistance in gathering data, information, or reports related to radon testing in Puerto Rico, as this information is crucial for our compliance with the U.S. Department of Housing and Urban Development (HUD) Community Planning and Development (CPD) Notice CDP-23-103.

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Barbosa Ave. #606, Building Juan C. Cordero Dávila, Río Piedras, PR 00981 | PO Box 21365 San Juan, PR 00928-1365
Tel. (787) 274-2527 | www.cdh.pr.gov

CDBG-DR/MIT Program
Request for Information in relation with HUD CDP-23-103 for Puerto Rico
Page 2 / 2

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Sincerely,


William O. Rodríguez Rodríguez, Esq.
Secretary

Cc: Mr. Raúl Hernández Dabla, rhernandez2@salud.pr.gov

CDBG-DR/MIT Program
Request for Information in relation with HUD CDP-23-103 for Puerto Rico
Page 2 / 2

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Thank you in advance for your cooperation and support. We look forward to working together on this critical initiative.

Sincerely,


William O. Rodríguez Rodríguez, Esq.
Secretary

Cc: Mr. R. Randall Schumann, rschumann@usgs.gov

From: Charp, Paul (CDC/NCEH/DEHSP) <pac4@cdc.gov>
Sent: Tuesday, September 3, 2024 6:36 AM
To: Miranda, Sandra (CDC/PHIC/DPS); Irizarry, Jessica (CDC/PHIC/DPS); Rzeszutarski, Peter (CDC/NCEH/DEHSP); Vinson, D. Aaron (CDC/NCEH/DEHSP)
Cc: Kostak, Liana (CDC/PHIC/DPS); Vazquez, Germaine (CDC/NCEH/DEHSP)
Subject: RE: REHi: Puerto Rico Request for Information- Randon testing and levels

Good morning, Sandra and others,

In response to the request from Mr. William Rodriguez of the Department of Housing, Government of Puerto Rico, I have reviewed all the available data within the CDC National Environmental Public Health Tracking Network system for data related to radon in Puerto Rico. In addition to the tracking data available on the internet, I also reached out to Mr. Aaron Vinson of the NCEH Tracking Branch.

I was not able to find any data in the CDC systems and this was confirmed by Mr. Vinson. We also reached out the US Environmental Protection Agency who indicated they had no radon data in their systems. Please relay this information to Mr. Rodriguez in your response to his requests

If you have any additional questions, please contact me.

Thank you and best regards,

Paul A. Charp, Ph.D., Fellow, HPS
Senior Health Physicist
Emerging Environmental Hazards and Health Effects Branch (EEHHEB)
Division of Environmental Health Science and Practice (DEHSP)
National Center for Environmental Health (NCEH)
Centers for Disease Control and Prevention (CDC)
pcharp@cdc.gov
770-488-0723 office
404.388.0614 Cell



From: Schumann, R. Randall <rschumann@usgs.gov>
Sent: Wednesday, August 21, 2024 4:39 PM
To: Melanie Medina Smaine <mmedina@vivienda.pr.gov>; Weyers, Holly S <hsweyers@usgs.gov>
Cc: Elaine Dume Mejia <Edume@vivienda.pr.gov>; Luz S Colon Ortiz <Lcolon@vivienda.pr.gov>; Aldo A. Rivera-Vazquez <aarivera@vivienda.pr.gov>
Subject: RE: Request for Information- Radon testing and levels

Dear Ms. Medina Smaine,

In the early 1990s the U.S. Geological Survey (USGS) conducted geologic assessments of radon potential for all 50 states and the territories of Guam and Puerto Rico, in collaboration with the U.S. EPA. I conducted the geologic radon potential assessment for Puerto Rico. The PDF file of the report is too large to attach to this message but it can be obtained at <https://pubs.usgs.gov/of/1993/0292k/report.pdf>. The USGS did not conduct indoor radon testing and we did not conduct field studies associated with this assessment; it was based on existing data. Mr. David Saldana of the Puerto Rico Department of Health kindly provided us with data for 610 homes that were tested for indoor radon by his agency between 1993 and 1995, which are summarized in the report. I am not aware of any other radon-related geologic studies conducted in the Commonwealth of Puerto Rico by the U.S. Geological Survey.

Best regards,

R. Randall Schumann
Scientist Emeritus
U.S. Geological Survey
Geosciences and Environmental Change Science Center
Denver, Colorado, USA
rschumann@usgs.gov
<https://www.usgs.gov/staff-profiles/r-randall-schumann>

From: Raul Hernandez Doble <rhernandez2@salud.pr.gov>
Sent: Wednesday, August 21, 2024 2:13:31 PM
To: Melanie Medina Smaine <mmedina@vivienda.pr.gov>; Dr. Carlos Mellado <drcarlos.mellado@salud.pr.gov>
Cc: Elaine Dume Mejia <Edume@vivienda.pr.gov>; Luz S Colon Ortiz <Lcolon@vivienda.pr.gov>; Aldo A. Rivera-Vazquez <aarivera@vivienda.pr.gov>; Mayra Toro Tirado <mtoro@salud.pr.gov>
Subject: RE: [EXTERNAL] Request for Information- Radon testing and levels

Good afternoon. Ms. Medina

I regret to inform that we do not have any recent information on radon testing, since we do not have a certified radiation laboratory certified for radon testing. There are companies that sell test kits available online that can be done and mailed to a testing laboratory. There are also lists of radon contractors and these companies that process radon testing cartridges with instructions, on the Environmental Protection Agency Indoor air Quality web page. The last radon study in Puerto Rico done by the PR Department of Health was done on the year 1993.

Raul Hernandez Doble
Director, Seccion Salud Radiologica
Division de Salud Ambiental
Secretaria Auxiliar para la Vigilancia y la Proteccion de la Salud Publica
rhernandez2@salud.gov.pr
Phone: (787)765-2929 ext. 3210

From: Reyes, Brenda <Reyes.Brenda@epa.gov>
Sent: Wednesday, September 18, 2024 11:48 AM
To: Cesar O Rodriguez Santos <cesarrodriguez@drna.pr.gov>; Maritza Rosa Olivares <maritzarosaolivares@drna.pr.gov>; Silvina Cancelos Mancini <silvina.cancelos@upr.edu>; Melanie Medina Smaine <mmedina@vivienda.pr.gov>
Cc: Elaine Dume Mejia <Edume@vivienda.pr.gov>; Luz S Colon Ortiz <Lcolon@vivienda.pr.gov>; Aldo A. Rivera-Vazquez <aarivera@vivienda.pr.gov>; Povetko, Oleg (he/him/his) <Povetko.Oleg@epa.gov>
Subject: RE: Request for Information- Randon testing and levels

Saludos.

La EPA esta trabajando una respuesta a su petición. Se sometió borrador a la directora y el subdirector para su aprobación y firma.

Brenda Reyes Tomassini
Public Affairs
U.S. EPA
Region 2
Caribbean Environmental Protection Division
(787) 977-5869/(787) 977-5865
Mobile: 202-834-1290

From: Silvina Cancelos Mancini <silvina.cancelos@upr.edu>
Sent: Friday, September 6, 2024 15:04
To: Melanie Medina Smaine <mmedina@vivienda.pr.gov>
Cc: Elaine Dume Mejia <Edume@vivienda.pr.gov>; Luz S Colon Ortiz <Lcolon@vivienda.pr.gov>; Aldo A. Rivera-Vazquez <aarivera@vivienda.pr.gov>; Maritza Rosa Olivares <maritzarosaolivares@drna.pr.gov>; Reyes, Brenda <Reyes.Brenda@epa.gov>; Povetko, Oleg <Povetko.Oleg@epa.gov>
Subject: Re: Request for Information- Randon testing and levels

Estimada Melanie Medina

Quería dejarle saber que recibimos su correo el 21 de agosto al igual que el de Maritza Rosa el pasado 4 de septiembre. Ya las personas involucradas de EPA, junto conmigo y el Dr. Marín estamos al tanto del asunto y estamos trabajando para poder enviarles la información.

Atentamente

Silvina Cancelos
Professor
Associate Director
Mechanical Engineering Department
University of Puerto Rico - Mayaguez
Call BOX 9000 Mayaguez PR 00680
Tel: 787-832-4040 ext 5956
email: silvina.cancelos@upr.edu



Bubble Dynamics Lab
University of Puerto Rico - Mayaguez



EPA REGION 2
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION

September 23, 2024

VIA EMAIL

William O. Rodriguez Rodriguez, Esq.
Secretary
Puerto Rico Department of Housing
Barbosa Ave. 606 Building Juan C. Cordero
San Juan, PR 00917
Email: W.Rodriguez@vivienda.pr.gov

RE: EPA Response to August 20, 2024 request for information of data on radon testing and levels in Puerto Rico

Dear Honorable Secretary Rodriguez Rodriguez:

This communication is in response to your letter of August 20, 2024 addressed to the Puerto Rico Department of Natural and Environmental Resources (DNER) and referred to the U.S. Environmental Protection Agency (EPA) regarding available data on radon testing and levels within Puerto Rico.

EPA's National Radon Action Plan 2021–2025 sets a goal for the nation to find, fix and prevent high indoor radon levels in 8 million buildings by 2025 and prevent 3,500 lung cancer deaths per year. Under this Plan, leaders from across multiple sectors are working together to plan, guide, and sustain nationwide action to prevent exposure to radon.

Due to the lack of data in Puerto Rico, EPA undertook an investigation in collaboration with the University of Puerto Rico-Mayaguez (UPRM) Campus, Departments of Civil Engineering and Surveying and Mechanical Engineering, to find out if radon presented a problem in Puerto Rico. Up until 2021, the only data we had for Puerto Rico was a 1993-1995 mail-in radon screening study referred to by the U.S. Geological Survey report (USGS, 1995) in which the USGS concluded that several areas of Puerto Rico have the geologic potential to generate indoor radon levels exceeding the EPA Action Level of 4 pCi/L (picocuries per liter), perhaps locally reaching very high levels above 50 pCi/L, if a house construction and

ventilation allow for soil-gas radon to enter and concentrate within the structure.¹ According to the USGS report, most of these areas are located in the northwest part of the island. Please note that the actual 1993-1995 study documentation is not available to the EPA.

Typical radon testing technology used in mainland United States (charcoal canisters or electric-powered devices) are impractical in Puerto Rico because of high humidity and power outages. The recovery and rebuilding of communities following the aftermath of 2017 Hurricanes Irma and Maria presented an opportunity to develop radon prevention and mitigation strategies in 2019. Initially, EPA sampled indoor radon air in over 170 single-family residences in the municipalities of San Sebastian, Lares, Ciales, Arecibo, Morovis, Camuy, and Hatillo and later expanded the project to other municipalities such as Rincon, Aguada, Aguadilla, Isabela, Quebradillas, Barceloneta and Vega Baja. The quality assurance protocols were anchored in American National Standards Institute/American Association of Radon Scientists and Technologists (ANSI/AARST) standards of practice (ANSI/AARS, 2019). The sampling was designed in two stages: scoping and confirmatory sampling. The scoping sampling was conducted using Corentium Home (CH) electronic monitors and E-Perm systems. Locations measuring above the EPA Action Level of 4 pCi/L with CH were measured at the second stage of the sampling using RAD7 and Corentium Pro Continuous Radon Monitors (CRMs). Nationally certified radon sampling professionals led by one such professional from the UPRM conducted confirmatory sampling in the second stage. Also, during the study, the nationally certified radon mitigation professionals inspected several homes with elevated indoor radon levels.

Mapping radon in Puerto Rico proved to be a complicated endeavor given the COVID-19 pandemic in 2020. EPA and UPRM continue to work on the project, however, results have not been finalized, and no scientific report has been published yet. Unfortunately, EPA cannot share preliminary data at this time because it contains privileged information. Nevertheless, preliminary data from the study does show homes with levels over 4 pCi/L (EPA Action Level) that might need mitigation to protect the health of their inhabitants.

Although many states have developed laws and regulations governing radon disclosure, certification, and mitigation, Puerto Rico lacks legislation or mandatory radon testing provisions for new construction, remodeling, selling or buying homes. Given this loophole and aiming to answer your request, the EPA can provide information on Best Management Practices for sampling indoor radon in Puerto Rico.

¹ Reference: USGS. Geologic Radon Potential of Guam and Puerto Rico, Report 93-292-K. Washington, DC: USGS. Retrieved 9/11/2024, from <https://pubs.usgs.gov/of/1993/0292k/report.pdf>.

CITY VIEW PLAZA II BUILDING, 7TH FLOOR
ROUTE 185 GUAYNABO, PR 00988

2

If you have any questions or need any additional information, please contact me at 787-977-5865 or guerrero.carmen@epa.gov or have your staff contact Reyes, Brenda at reyes.brenda@epa.gov or (787) 977-5869.

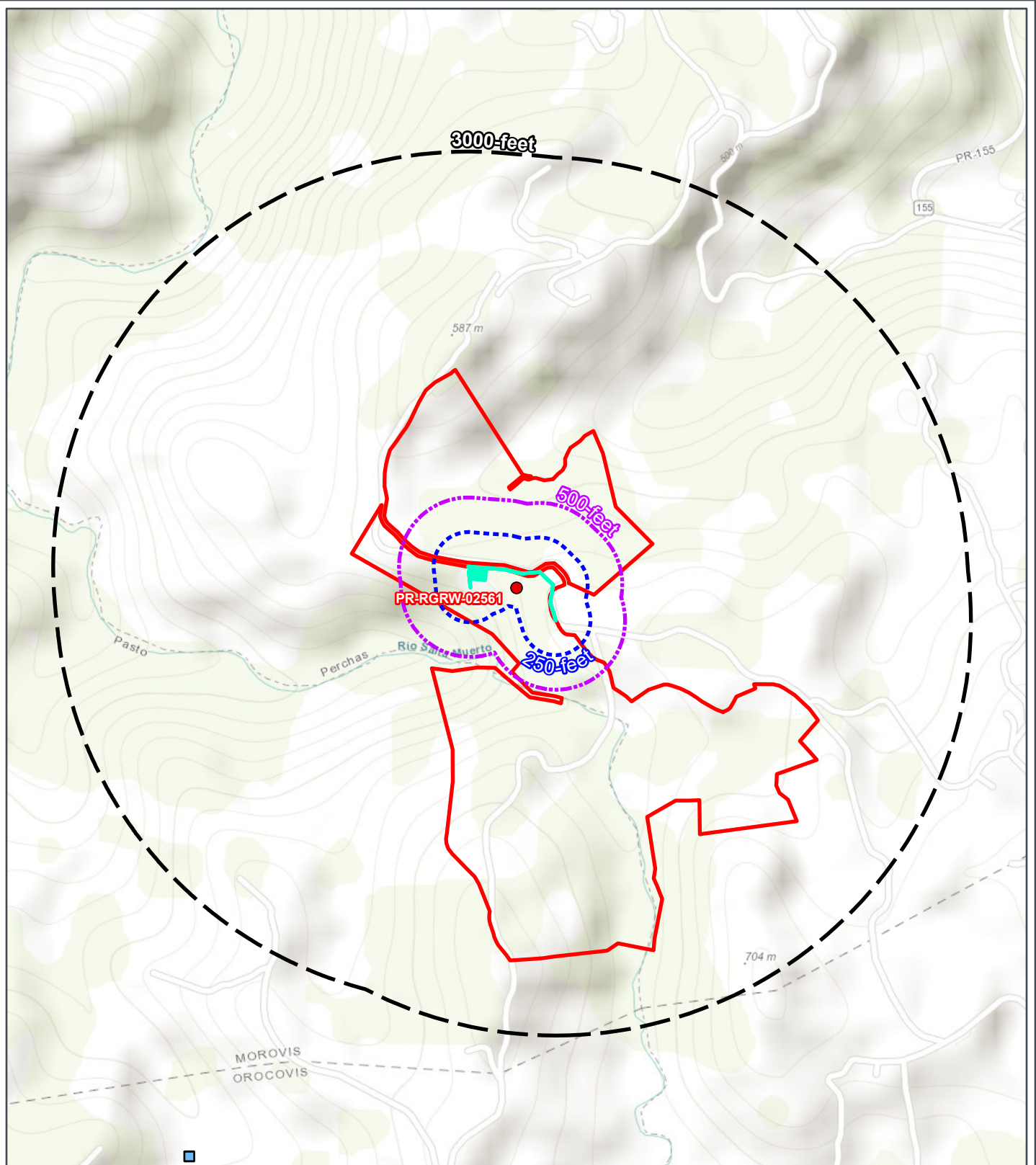
Sincerely,

**CARMEN
GUERRERO
PEREZ**

Carmen R. Guerrero Pérez
Director

Digitally signed by
CARMEN GUERRERO PEREZ
Date: 2024.09.23 09:41:39
-04'00'

cc: Roberto Mendez, Esq (Acting Secretary, PR Department of Natural and Env. Resources)
Melany Medina: mmedina@vivienda.pr.gov
Elaine Dume Mejia: Edume@vivienda.pr.gov
Luz S Colon Ortiz: Lcolon@vivienda.pr.gov
Aldo A. Rivera-Vazquez: arivera@vivienda.pr.gov
Cesar O. Rodriguez: cesarrodriiguez@drna.pr.gov
Marita Rosa Olivares: maritzarosaolivares@drna.pr.gov



REGROW PROGRAM

Figure B 6-1: Contamination and Toxic Substances Map

Applicant ID: PR-RGRW-02561

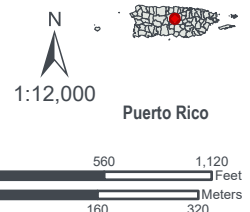


- Site
- Site Parcel
- Project Footprint (Option)
- Buffer (250-feet)
- Buffer (500-feet)
- Buffer (3000-feet)
- Water dischargers

- Toxic Substances Control Act
- Toxic releases
- Superfund
- Hazardous waste
- Brownfields
- Air pollution

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://geopub.epa.gov/arcgis/rest/services/EMEF/leipoints/MapServer>
Base Map: ESRI ArcGIS Online, accessed June 2024
Updated: 6/19/2024
Layout: Contamination and Toxic Substances



Attachment 7

**Endangered Species Act Partner
Worksheet, Threatened and Endangered
Species Technical Memorandum,
USFWS IPaC Species List, and Critical
Habitat Map,**



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Endangered Species Act (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/endangered-species>

1. Does the project involve any activities that have the potential to affect species or habitats?

☐ No, the project will have No Effect due to the nature of the activities involved in the project.

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

☐ No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office.

Explain your determination:

[Click here to enter text.](#)

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

☒ Yes, the activities involved in the project have the potential to affect species and/or habitats. → Continue to Question 2.

2. Are federally listed species or designated critical habitats present in the action area?

Obtain a list of protected species from the Services. This information is available on the [FWS Website](#).

☐ No, the project will have No Effect due to the absence of federally listed species and designated critical habitat.

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation may include letters from the Services, species lists from the Services’ websites, surveys or other documents and analysis showing that there are no species in the action area.

☒ Yes, there are federally listed species or designated critical habitats present in the action area. → Continue to Question 3.

3. Recommend one of the following effects that the project will have on federally listed species or designated critical habitat:

☐ No Effect: Based on the specifics of both the project and any federally listed species in the action area, you have determined that the project will have absolutely no effect on listed species or critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation should include a species list and explanation of your conclusion, and may require maps, photographs, and surveys as appropriate.*

☒ May Affect, Not Likely to Adversely Affect: Any effects that the project may have on federally listed species or critical habitats would be beneficial, discountable, or insignificant.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Informal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

☐ Likely to Adversely Affect: The project may have negative effects on one or more listed species or critical habitat.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Formal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

Threatened, endangered, and migratory bird species were identified by reviewing data from the United States Fish and Wildlife Service (USFWS) Information and Planning Consultation (IPaC) Tool. In addition, critical species habitat was reviewed through the USFWS IPaC and Critical Habitat Portal databases. The review identified two federally listed species the Puerto Rican harlequin butterfly (*Atlantea tulita*) and Puerto Rican boa (*Chilabothrus inornatus*) with the potential to occur within the project area.

Based on the site inspection and proposed project activities, the project will have *no effect* on the Puerto Rican harlequin butterfly or designated critical habitat. Due to the generalist nature of the Puerto Rican boa, forested habitat surrounding the project areas, and dense ground cover present throughout the review area, the Puerto Rican boa may occur within the project area. The applicant will employ the conservation measures outlined in the USFWS 2024 General Project Design Guidelines for the Puerto

Rican boa. As such, it is anticipated that the project *may affect, but is not likely to adversely affect* the Puerto Rican boa. See the attached USFWS informal consultation request and subsequent concurrence, dated August 4, 2024.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Bayamón | Mayagüez | Maricao | Río Grande | St Croix
P.O. Box 491
Boquerón, Puerto Rico 00622



In Reply Refer to:
FWS/R4/CESFO/72101-Gen

Submitted Via Electronic Mail: jcperez@vivienda.pr.gov

Juan Carlos Pérez-Bofill, PE, MEng.
Director – Disaster Recovery CDBG-DR Program
Puerto Rico Department of Housing
P.O. Box 21365
San Juan, P.R 00928-1365

Re: CDBG-DR PR-RGRW-02561 Más Fresco Que
Fresco LLC, Morovis, Puerto Rico

Dear Mr. Pérez-Bofill

Thank you for your letter dated July 09, 2024, requesting informal consultation on the above referenced project. As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Puerto Rico Department of Housing (PRDOH) is proposing the construction of eight new hydroponic greenhouses, cisterns, above ground electrical line, and an underground extension of the existing water connection. The project is located at State Road PR-155 Km 1.5, Bo. Perchas (18°16'16.3"N 66°24'56.9"W) in the municipality of Morovis. Construction of the greenhouses and cisterns will not require vegetation removal, but construction of the electrical line would require vegetation removal and may require some tree clearing and/or pruning.

Using the Information for Planning and Consultation (IPaC) system PRDOH has determined that the proposed project lies within the range of Puerto Rican boa (*Epicrates inornatus* now known as *Chilabothrus inornatus*) and Puerto Rican harlequin butterfly (*Atlantea tulita*).

PRDOH used the Caribbean Determination Key (DKey) in the IPaC application to evaluate the potential impacts of the proposed project on federally listed species (Project code: 2024-0096380). Based on the answers provided, a consistency letter was obtained for the Puerto Rican boa, which determined that the proposed actions for this project may affect, but is not likely to adversely affect (NLAA) this species. Conservation measures for the Puerto Rican boa will be implemented. The Service acknowledges receipt of the NLAA DKey consistency letter for the Puerto Rican boa with the implementation of the conservation measures.

As for the Puerto Rican harlequin butterfly, based on the nature of the project, scope of work, information available, and analysis of the IPaC lists, PRDOH has determined that the proposed project has no effect on this species due to the lack of suitable habitat since its critical habitat is 44, 571 feet away from the project site. Also, the existing habitat conditions at the proposed greenhouse location consist of mostly barren ground with sparse herbaceous vegetation.

We acknowledge receipt of PRDOH's NE determination for the Puerto Rican harlequin butterfly. Currently, we do not have information to refute that determination. Because the PRDOH made a NE determination, PRDOH is not required to conduct formal or informal section 7 consultation with the Service, and the Service is not required to concur with PRDOH's NE determination.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact us via email at caribbean_es@fws.gov or by phone at (786) 244-0081.

Sincerely,

LOURDES
MENA

Digitally signed by
LOURDES MENA
Date: 2024.08.04
14:26:06 -04'00'

Lourdes Mena
Field Supervisor

drr



ENVIRONMENTAL CONSULTANTS

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10245 West Little York Road, Suite 600
Houston, Texas 77040
Tel 281.617.3217 Fax 281.617.3227
www.swca.com

June 26, 2024

Robert Tawes
Division Supervisor, Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
Email: robert_tawes@fws.gov

**Re: Federally Listed Threatened and Endangered Species Evaluation for the Puerto Rico
Department of Housing ReGrow PR-RGRW-02561 Project/ SWCA Project No. 72428**

Dear Mr. Tawes:

SWCA Environmental Consultants (SWCA), on behalf of the Puerto Rico Department of Housing, is requesting 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 ReGrow PR-RGRW-02561 Project (project). The Project is located at Bo. Canabon Abajo, Carr 772 Km 6.2, Barranquitas, PR 00794 Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687 (18.271688, -66.415708).

The proposed Project involves the construction of eight new hydroponic greenhouses, cisterns, above-ground electrical line, and an underground extension of the existing water connection. Construction of the greenhouses and cisterns will not require vegetation removal, but construction of the electrical line would require vegetation removal and may require some tree clearing and/or pruning.

Using the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system, we have determined that the proposed project lies within the range of the following federally listed species:

Species	Listing Status
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Endangered
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	Threatened

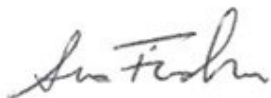
No designated or proposed critical habitat for any listed species was identified within the project area. Based on the nature of the project, scope of work, information available, and a careful analysis of the existing habitat, we have made the following effects determinations:

Species	Effect Determination	Conservation Measures to be Implemented
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Not likely to adversely affect (NLAA)	Puerto Rican Boa General Project Design Guidelines
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	No effect (NE)	No Conservation Measures

In accordance with the 2024 Puerto Rican Boa General Project Design Guidelines, if a Puerto Rican Boa (PR Boa) is found in the project action site, work shall cease until the individual moves off on its own. If the PR 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 PR Boa.

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. If you have any questions or require any additional information, please contact me at (346) 388-1157 or susan.fischer@swca.com.

Sincerely,



Susan Fischer
Wildlife Ecologist
SWCA Environmental Consultants

Attachments: Threatened and Endangered Species Technical Memorandum



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10245 West Little York Road, Suite 600
Houston, Texas 77040
Tel 281.617.3217 Fax 713.896.3189
www.swca.com

TECHNICAL MEMORANDUM

To: Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491
Boquerón, Puerto Rico 00622

From: Susan Fischer, Project Biologist on behalf of the Puerto Rico Department of Housing

Date: June 25, 2024

Re: **Threatened and Endangered Species Evaluation for the Puerto Rico Department of Housing ReGrow PR-RGRW-02561 Project/ SWCA Project No. 72428**

Project Description

Más Fresco Que Fresco LLC , the applicant, is proposing to construct eight new greenhouses, cisterns, an above-ground electrical line, and extend an underground water line on a property in the Municipio of Barranquitas , Puerto Rico (project) (Appendix A, Figure 1). The project is located at Bo. Canabon Abajo, Carr 772 Km 6.2, Barranquitas, PR 00794 , in a rural area. The estimated dimensions of each greenhouse will be approximately 50 feet by 20 feet (1,000 square feet) and each cistern will be approximately 5 feet by 5 feet (25 square feet). The project also includes an underground extension of the existing water connection and aboveground extension of the existing electric line (Appendix A, Figure 2).

Existing conditions

The existing habitat conditions at the proposed greenhouse location consist of mostly barren ground with sparse herbaceous vegetation. Taller grasses and occasional hardwood trees are present within the pathway of the electric line extension, and forested areas lie adjacent to a portion of the proposed line. There are no wetlands or waterbodies located within or adjacent to the proposed project locations (Appendix A, Figure 3). Extension of the electric line would require removal of the vegetation within the proposed project area, and may require some tree clearing and/or pruning. Representative photographs of the proposed locations are provided in Appendix B.

Federally Protected Species

SWCA obtained a federal threatened and endangered species list from the USFWS (2024a) Information for Planning and Consultation (“IPaC”) website for a 100-foot buffer around the greenhouses and water line locations (review area) (Appendix C). The IPaC automatically generates a list of species and other resources of concern, such as critical habitat, that are known or expected to be in the specified area and could potentially be directly or indirectly affected. According to the IPaC query for the project, two federally

listed endangered species has the potential to occur in the review area; the Puerto Rican boa (*Chilabothrus inornatus*), and the Puerto Rican harlequin butterfly (*Atlantea tulita*). SWCA also evaluated the review area for potential habitat for bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) as they are protected by the Bald and Golden Eagle Protection Act of 1940 (“BGEPA”).

The bald and golden eagle’s range do not extend into Puerto Rico (Cornell Lab of Ornithology 2024); therefore, these species were eliminated from further analysis for this project. Table 1 identifies the species carried forward for further evaluation and summarizes each species’ habitat requirements, potential for occurrence in the project area, and determination of effects.

Table 1. Federally Listed Species Range and/or Habitat Requirements

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effects/Impacts
Reptiles				
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	FE	Considered to be a habitat generalist, the Puerto Rican boa tolerates a wide variety of terrestrial and arboreal habitats, including rocky areas, haystack hill, trees and branches, rotting stumps, caves, plantations, various types of forested areas such as karst and mangrove forests, forested urban and rural areas, and along streams and road edges (USFWS 2011).	<i>May occur.</i> The project area is located adjacent to forested areas and dense vegetative ground cover and trees are present within portions of the project area.	<i>May affect, but not likely to adversely affect.</i> See discussion below.
Insects				
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	FT	This species inhabits areas with moderately dense to dense canopy cover and dense vegetation and a source of water within a kilometer. Eggs and larvae are found only on the prickly bush (<i>Oplonia spinosa</i>), while adult butterflies feed on the nectar of several tree species and drink water (USFWS 2019).	<i>Unlikely to occur.</i> There are no prickly bush plants or forested areas within the project area.	<i>No effect.</i> There is no suitable habitat for the Puerto Rican harlequin butterfly in the project area.

*Status Definitions:

FE = Federally listed endangered; FT = Federally listed threatened

Based on a site visit and habitat evaluations, the Puerto Rican harlequin butterfly is considered unlikely to occur due to lack of suitable habitat within the project areas. Therefore, the project will have *no effect* on this federally listed species. Due to the generalist nature of the Puerto Rican boa, forested habitat surrounding the project areas, and dense ground cover present within portions of the project area, the Puerto Rican boa may occur within the project area. The applicant will employ the conservation measures outlined in the 2024 USFWS General Project Design Guidelines for the Puerto Rican boa (Appendix D), including but not limited to issuing a stop work if a Puerto Rican boa were to occur within the project area, and contacting the PRDNER for safe capture and relocation of the individual if such action is required. Consequently, it is anticipated that the project *may affect, but is not likely to adversely affect* the Puerto Rican boa. The USFWS Consistency Letter obtained through IPaC is included in Appendix E.

Critical Habitat and National Wildlife Refuges

Potential effects to habitat(s) within the project area critical to endangered species must be analyzed along with the endangered species themselves, while any activity proposed on National Wildlife Refuge lands

must undergo a compatibility determination conducted by the Refuge. No designated critical habitats are present within 100-feet of any of the proposed project location options (Appendix A, Figure 4) (USFWS 2024b).

LITERATURE CITED

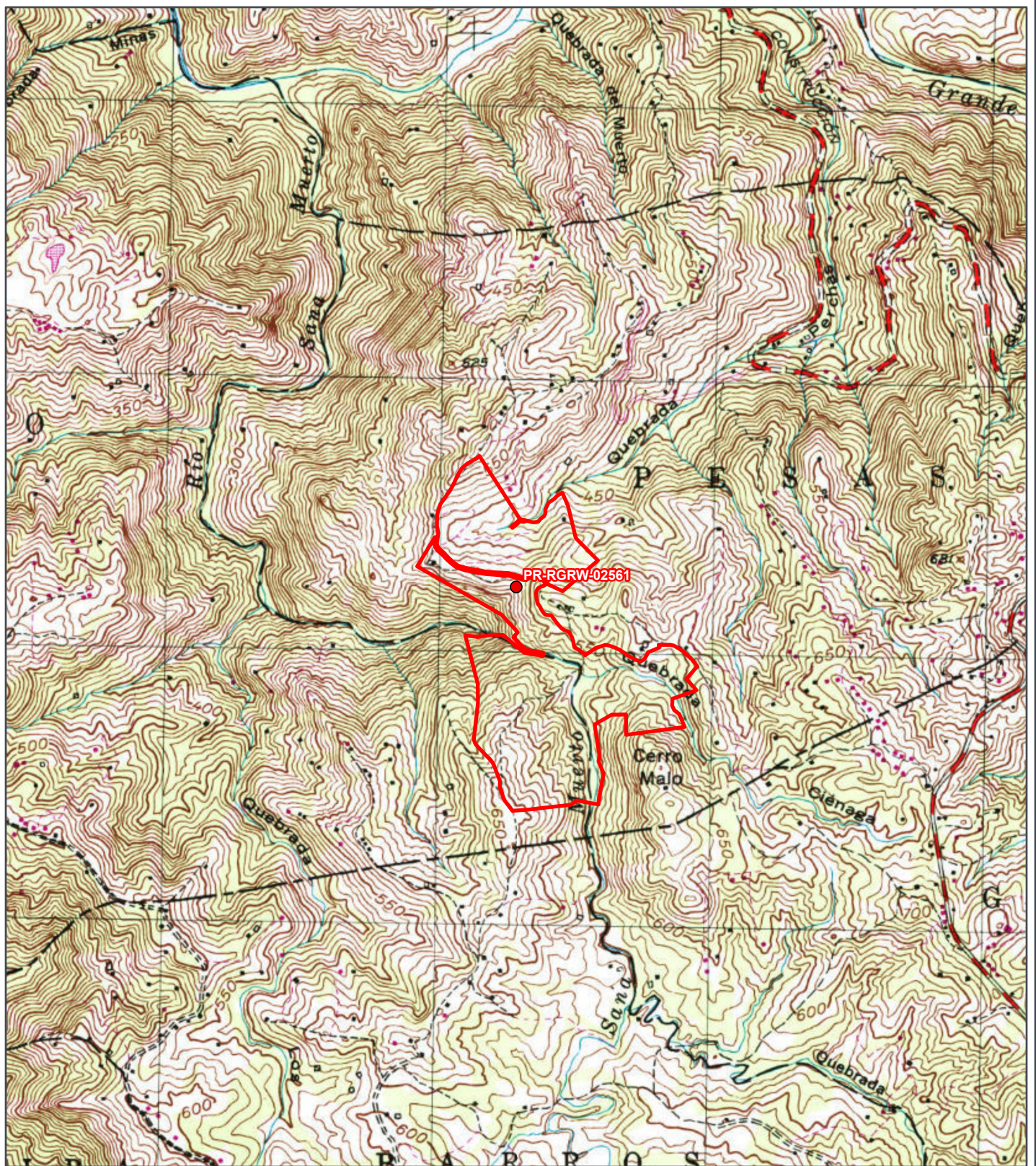
- Cornell Lab of Ornithology. 2024. All About Birds. Available at: <https://www.allaboutbirds.org/guide/>. Accessed May 2024.
- U. S. Fish and Wildlife Service (USFWS). 2011. *Puerto Rican Boa (Epicrates inornatus) 5-Year Review: Summary and Evaluation*. U.S. Fish and Wildlife Service, Southeast Region. Boquerón, Puerto Rico.
- . 2019. *Species Status Assessment Report for the Puerto Rican Harlequin Butterfly (Atlantea tulita) Version 1.5*. U.S. Fish and Wildlife Service, Southeast Region. Atlanta, Georgia.
- . 2024a. Information for Planning and Consultation System (IPaC). Available at: <http://ecos.fws.gov/ipac/>. Accessed May 2024.
- . 2024b. Critical Habitat for Threatened & Endangered Species [USFWS]. Available at: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>. Accessed June 2024.

APPENDIX A

Maps

Figure 1

USGS Topographic Map



REGROW PROGRAM

USGS Topographic Map

Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
18.271688,
-66.415708

Base Map: ESRI ArcGIS Online,
accessed June 2024
Updated: 6/19/2024
Layout: USGS Topographic Map
Aprx: 72428_ReGrowTier2Maps

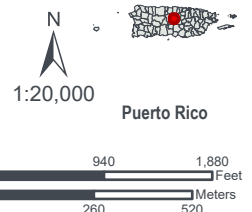
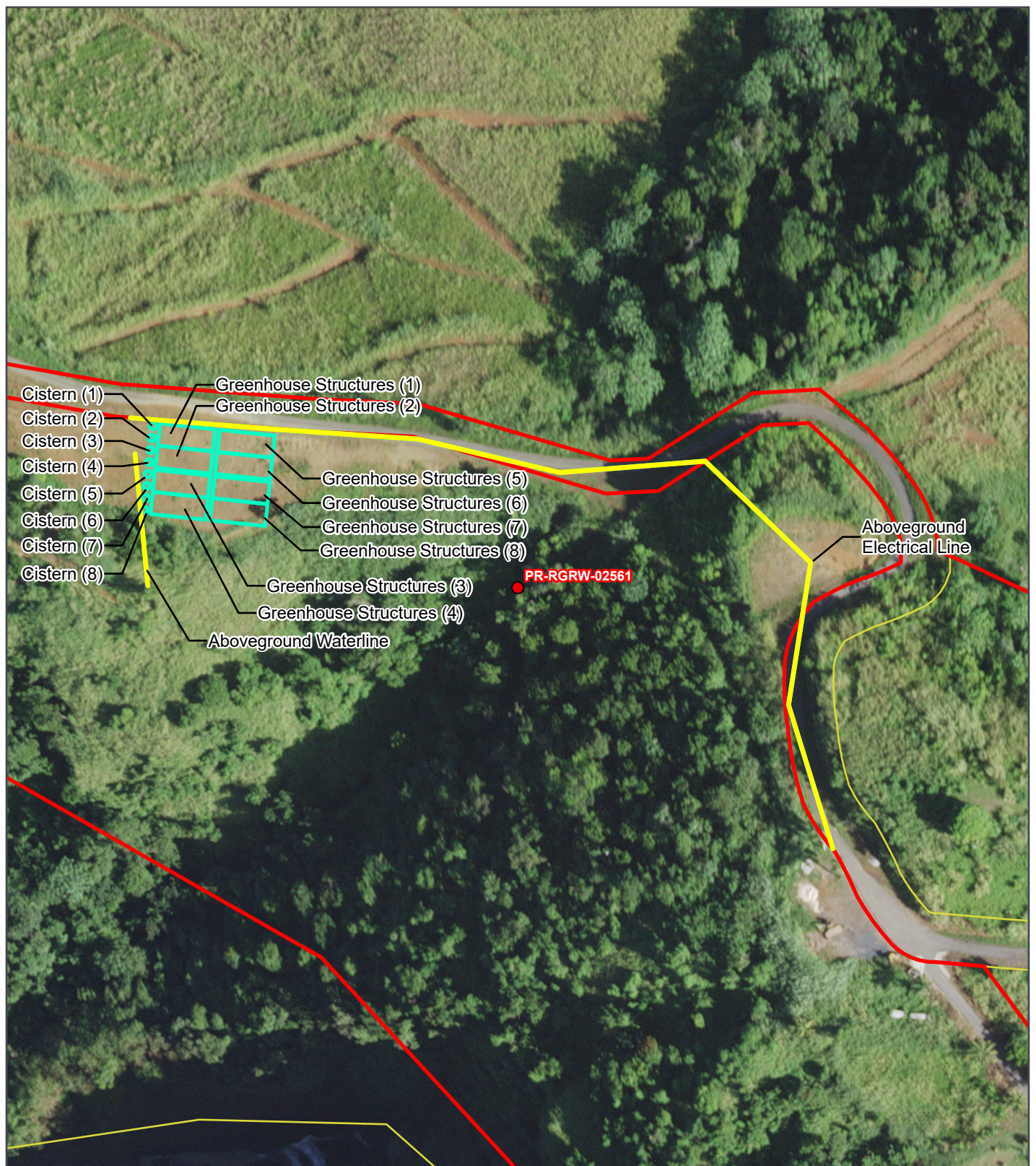


Figure 2
Site Vicinity Map



REGROW PROGRAM

Figure A-2: Site Vicinity

Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Above Ground Utilities Location

Morovis, Puerto Rico 00687

Parcel ID: 193-000-002-38

18.271688,
-66.415708

Base Map: USA NAIIP Imagery
Imagery Year: 2022
Updated: 6/26/2024

Layout: Project Footprint
Aprx: 72428_ReGrowTier2Maps3

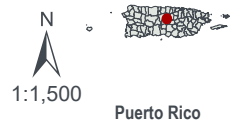
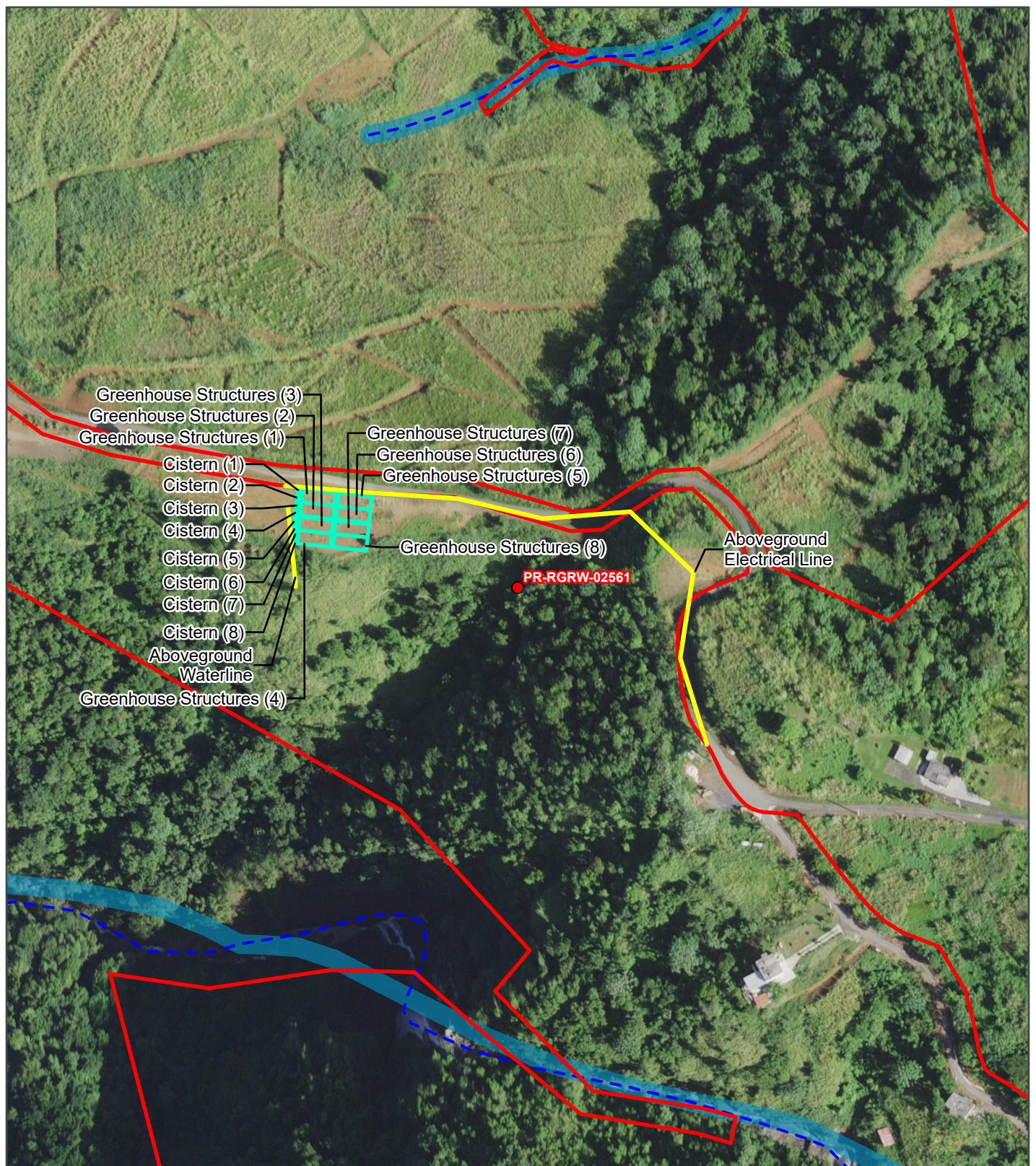


Figure 3
Wetlands Map



REGROW PROGRAM

Wetlands Protection Map

Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Above Ground Utilities Location
- NHD Stream
- Estuarine and Marine Deepwater

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

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
18.271688,
-66.415708

Data Source: <https://apps.nationalmap.gov/downloader/#/>
<https://www.fws.gov/program/national-wetlands-inventory/data-download>
Base Map: USA NAIP Imagery
Imagery Year: 2022
Updated: 6/19/2024
Layout: Wetlands Protection

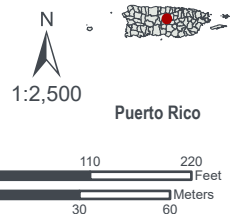


Figure 4
Critical Habitat Map



REGROW PROGRAM

Critical Habitat Map

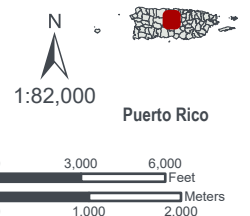
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Buffer (100-ft)
- Critical Habitat - Final
- National Wildlife Refuges

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
18.271688,
-66.415708

Data Source: https://services.arcgis.com/QVENGdaPbd4LUkLV/arcgis/rest/services/USFWS_Critical_Habitat/Base_Map: ESRI/ArcGIS Online, accessed June 2024
Updated: 6/24/2024
Layout: Critical Habitat
Aprx: 72428_ReGrowTier2Maps



APPENDIX B

Photographic Log

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708



Photo #: 01	Date: 09/21/ 2023	
Photo Direction: East		
Description: Overview of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.		

Photo #: 02	Date: 09/21/ 2023	
Photo Direction: North		
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708

Photo #: 03	Date: 09/21/2023
Photo Direction: East	
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation, the landform, and the vehicles on the main access road.	



A photograph showing a dirt road leading up a hillside. The hillside is covered in dense green vegetation and trees. A white car is parked on the road. The sky is blue with large white clouds. In the foreground, there is a dirt area with some small green plants. Two people are standing near the car on the road.

Photo #: 04	Date: 09/21/ 2023
Photo Direction: South	
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform towards the property.	



Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708

Photo #: 05	Date: 09/21/ 2023
Photo Direction: West	
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.	



A wide-angle photograph of a field with sparse green vegetation and small trees in the foreground. In the background, there are larger, denser trees and a blue sky with scattered white clouds. A person is visible standing on the right side of the field.

Photo #: 06	Date: 09/21/ 2023
Photo Direction: Southeast	
Description: Overview from the northwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform towards the main access road.	



Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708



Photo #: 07	Date: 09/21/ 2023	
Photo Direction: Southwest		
Description: Overview from the northeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform.		

Photo #: 08	Date: 09/21/ 2023	
Photo Direction: Northwest		
Description: Overview from the southeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708



Photo #: 09	Date: 09/21/2023	
Photo Direction: Northeast		
Description: Overview from the southwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.		

Photo #: 10	Date: 09/21/ 2023
Photo Direction: North	
Description: Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.	

A photograph showing a landscape with a dirt foreground, a line of tall green grass, and a hill covered in dense green vegetation under a blue sky with white clouds.

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708



Photo #: 11	Date: 09/21/ 2023	
Photo Direction: East		
Description: Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform towards the main access road.		

Photo #: 12	Date: 09/21/ 2023	
Photo Direction: South		
Description: Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708



Photo #: 13	Date: 09/21/ 2023	
Photo Direction: West		
Description: Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.		

Photo #: 14	Date: 09/21/ 2023	
Photo Direction: South		
Description: This picture overviews the location for Río Sana Muerto south of the site location.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708



Photo #: 15	Date: 09/21/ 2023	
Photo Direction: South		
Description: This picture overlooks a dirt-pushed pile on the southeast corner due to applicants cleaning and superficial scraping the area.		

Photo #: 16	Date: 09/21/ 2023	
Photo Direction: North		
Description: At the property's entrance, an electrical meter was installed, and applicants expect the electricity to be connected from that source to the project location. To better access, LUMA might be using the main access road, and all costs will be funded by the landowner.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708




Photo #: 17	Date: 09/21/ 2023	
Photo Direction: Close-Up, Southwest		
Description: Close to the property's entrance, the underground water meter box is found with multiple meters for different structures. The applicants mentioned the landowner has a potable water pipeline in the property, but that they are not sure where it is found. The applicants do have an agreement with the landowner that he is the one who is going to fund the connections and installations.		

Photo #: 18	Date: 09/21/ 2023	
Photo Direction: East		
Description: This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.271688, -66.415708

Photo #: 19	Date: 09/21/ 2023
Photo Direction: West	
Description: This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).	

A photograph showing a dirt road that curves to the right, flanked by tall green grass and some shrubs. In the background, there are several trees and a blue sky with large, white, fluffy clouds. The road appears to be a main access road for a property.

APPENDIX C

USFWS Information for Planning and Consultation



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:
Project Code: 2024-0096380
Project Name: PR-RGRW-02561

05/29/2024 12:25:02 UTC

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: 2024-0096380

Project Name: PR-RGRW-02561

Project Type: Disaster-related Grants

Project Description: Construction of eight new hydroponic greenhouses, cisterns, an above-ground electrical line, and extension of the underground water line. Two options are being considered for the underground waterline; the option 1 location would require some vegetation clearing and may require some tree removal and/or pruning. No vegetation/tree removal is required for installation of the greenhouses, cisterns, electrical line, or the option 2 water line location.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.27123385,-66.41582113333149,14z>



Counties: Morovis County, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

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

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

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

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

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

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/G5WU2ZH5XFHJLNEFPUCADMI4BQ/documents/generated/7159.pdf	Endangered

INSECTS

NAME	STATUS
Puerto Rican Harlequin Butterfly <i>Atlantea tulita</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9005 General project design guidelines: https://ipac.ecosphere.fws.gov/project/G5WU2ZH5XFHJLNEFPUCADMI4BQ/documents/generated/7168.pdf	Threatened

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

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

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

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

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

MIGRATORY BIRDS

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

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

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

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

WETLANDS

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

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

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: SWCA Environmental Consultants
Name: Susan Fischer
Address: 10245 West Little York Road
Address Line 2: Suite 600
City: Houston
State: TX
Zip: 77040
Email: susan.fischer@swca.com
Phone: 3463881157

APPENDIX D

Project Design Guidelines

General Project Design Guidelines (2 Species)

Generated May 29, 2024 12:30 PM UTC, IPaC v6.109.0-rc4

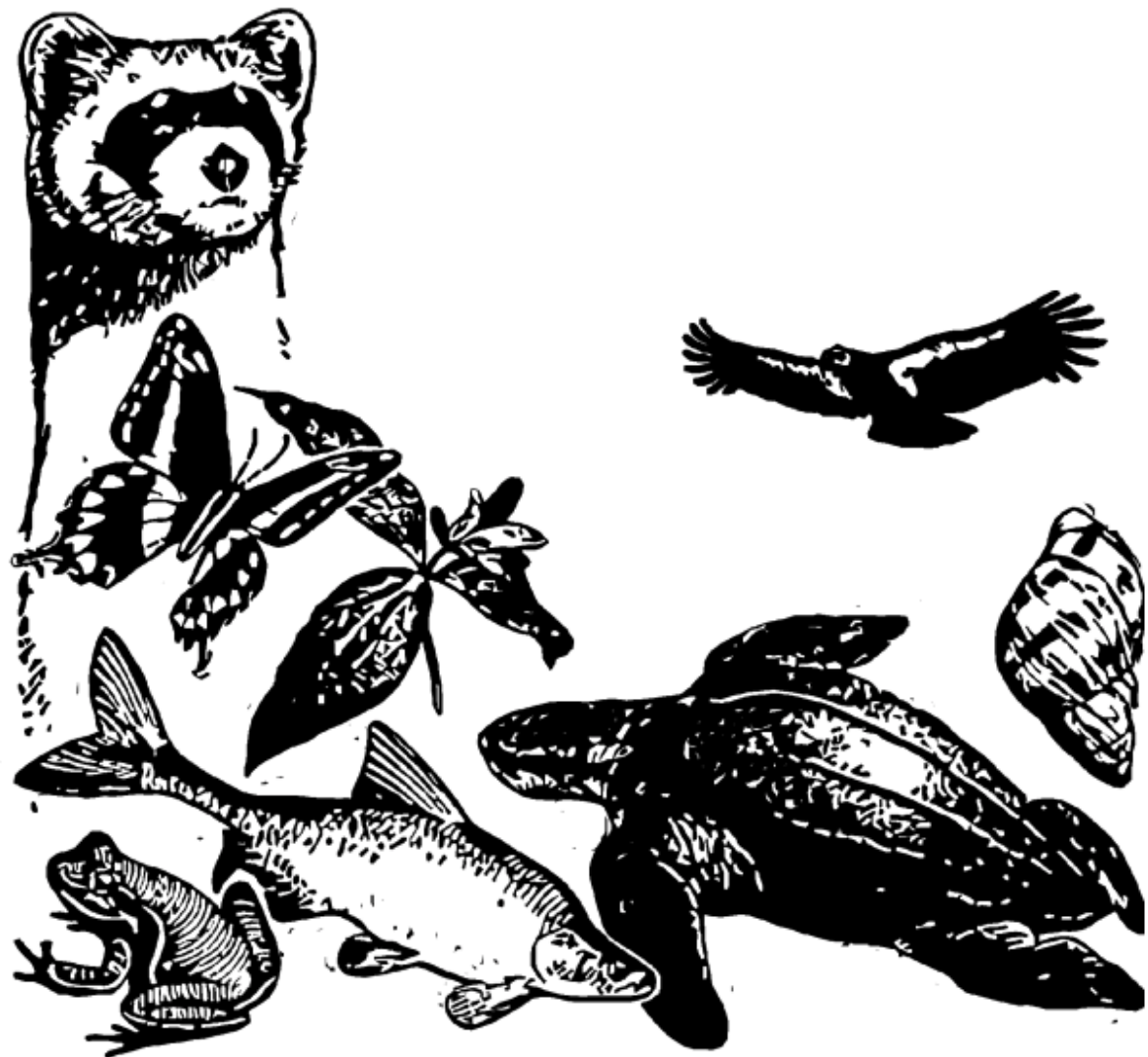


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Species Document Availability

Species with general design guidelines

Puerto Rican Boa *Chilabothrus inornatus*

Puerto Rican Harlequin Butterfly *Atlantea tulita*

General Project Design Guidelines - Puerto Rican Harlequin Butterfly and 1 more species

Published by Caribbean Ecological Services Field Office for the following species included in your project

Puerto Rican Harlequin Butterfly *Atlantea tulita*

Puerto Rican Boa *Chilabothrus inornatus*



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

Conservation Measures for the Puerto Rican harlequin butterfly (*Atlantea tulita*)

Section 7 (a)(1) of the Endangered Species Act (ESA) mandates Federal agencies to aid in the conservation of federally listed species. Section 7 (a)(2) requires the Federal 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 federally listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as approval of private activities through the issuance of Federal funding, permits, licenses, or any other actions. Any person that injures, captures, or kills a Puerto Rican harlequin butterfly, or destroy its eggs or any other of its life stage (caterpillars, chrysalis) is subject to penalties under the ESA. Thus, Federal Actions agencies must initiate consultation with the Service under Section 7 of the ESA for any action that could affect the Puerto Rican harlequin butterfly. To initiate a consultation under the Section 7 of the ESA, the Federal Action agency must submit a project package to the Service with the established minimum requirements (see below). The conservation measures included below should be incorporated into the project plans to minimize possible impacts to the Puerto Rican harlequin butterfly. Download the [project evaluations fact sheet](#) to learn more about the requirements or visit our [project evaluations webpage](#).



The Puerto Rican (PR) harlequin butterfly (*Atlantea tulita*), is a threatened species endemic to Puerto Rico, whose currently known range is limited to the Northern Karst

February 2024

physiographic region and the West-central Volcanic-serpentine physiographic region of the Island. Through this range, we have identified six areas occupied by the PR harlequin butterfly that we refer to as a populations: (1) along the coastal cliff in the municipalities of Isabela, Quebradillas, and Camuy; (2) Guajataca in the municipality of Isabela; (3) Río Abajo Commonwealth Forest between the municipalities of Arecibo and Utuado; (4) Río Encantado area along the municipalities of Arecibo, Florida and Ciales; (5) Maricao Commonwealth Forest in the municipality of Maricao; and (6) Susúa Commonwealth Forest between the municipalities of Sabana Grande and Yauco. In addition, adult PR harlequin butterflies have been anecdotally reported in other areas of Puerto Rico, including the municipalities of Aguadilla, Barceloneta, Ciales, Florida, Luquillo, Ceiba, Guánica, San Germán, Las Marias and Lares.

The PR harlequin butterfly is a medium sized butterfly with a life cycle includes four distinct anatomical stages: imago (adult), egg, larva (caterpillar, with several size phases called instars), and chrysalis. The species has a wingspan of about 5.1 to 6 centimeters (cm) (2 to 2.5 inches (in)) wide and is characterized by its orange, brownish-black and beige coloration patterns. The caterpillar (larva) is dark orange with a brownish black to black, thin sub-lateral line, over a thin line of white intermittent dots crossing the body from the head to the anal plate, and has spines with hairs on each body segment. The caterpillar is less than .476 centimeters (cm) (0.19 in) in the first instar (growth stage between molts) and about 3.3 cm (1.29 in) in the fifth instar. Both eggs and caterpillars have been found almost exclusively on the host plant prickly bush (*Oplonia spinosa*). The chrysalis (pupa from which the butterfly (adult, or imago) emerges) of the PR harlequin butterfly is black, with orange and white dashes, and yellow pimples. The size of chrysalis is around 3 cm (1.2 in). In the wild, the chrysalis is more often found attached to branches of plants located close to the host plant, but it has been observed attached to dried twigs of the host plant.

The PR harlequin butterfly is difficult to detect, and the species is easily misidentified with other common butterflies such as the monarch butterfly (*Danaus plexippus portoricensis*), Antillean crescent (*Antillea pelops*), and Gulf fritillary (*Agraulis vanilla insularis*). The PR harlequin butterfly adults seem to be more active in the morning, from 9:00 am to 12:00 pm, when they are often observed flying searching for food or patrolling their territory for mating or laying eggs. The species flies slowly and is weak and fragile; thus, it is considered a poor disperser. There is information that this butterfly can disperse up to 1,026 meters (m) (3366.1 feet (ft)), approximately 1 kilometer (km) (0.6 mile (mi)) from one breeding site to another. The species seems to have specific ecological requirements for reproduction and its dispersion.

The PR harlequin butterfly was federally listed as threatened on January 3, 2023 (87 FR 73655), due to threats related to habitat modification and loss, its small populations size, and because of analyses of projected effects on the species resulting from relevant factors like increment of urban development rate and climate changes, which may negatively influence the continued existence of the species in the foreseeable future.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the PR harlequin butterfly and its

habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional recommendations can be made besides the ones presented in this document.

1. All project construction personnel must be informed about the potential presence of the PR harlequin butterfly or its occupied host plant, prickly bush (*Oplonia spinosa*), in the project areas and the need to avoid harming the species and its occupied host plant. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act. Educational material (e.g., posters, flyers, or signs with photos or illustrations of all the life stages of the PR harlequin butterfly (i.e., eggs, caterpillar, chrysalis, and adult) as well as its host plant, should be prepared and available to all personnel for reference.
2. Before starting any project activity, including removal of vegetation and earth movement, the boundaries of the work area in the field clearly delineate to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the PR harlequin butterfly (all life stages) and the prickly bush must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the PR harlequin butterfly can be observed year-round in all its life stages; thus, oviposition (egg-laying) may occur at any time during the year.
3. If the prickly bush is present on the project site, try to avoid cutting it off, even if no eggs, caterpillars, or chrysalis are present.
4. If there is no prickly bush within the project area, and the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species.
5. Adult butterflies are often observed flying near the host plant as part of their mating behavior and laying eggs. Project-related activities must stop if the prickly bush is found in the project area and the PR harlequin butterfly is observed flying in that same area where the plan is located. A temporary 50-meter (164 feet) buffer zone of no activity or human disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.
6. Once the PR harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean_es@fws.gov after the 36-hour search is concluded.
7. If, after the initial search or after the 24 to 36-hour search, any life stage of the PR harlequin butterfly is found in the prickly bush, take the following actions:
 - Clearly mark the host plant with flagging tape.

- Establish a 10-meter (32-foot) buffer zone around the bush to protect it.
- Eggs are typically found on the prickly bush's newly grown, tender branches. Once an egg hatches, the caterpillar moves and feeds throughout the plant. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present.
- Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days.

8. For all PR harlequin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All PR harlequin butterfly sighting reports should be sent to the U.S. Fish and Wildlife Service, Caribbean Ecological Service Field Office at caribbean_es@fws.gov.

9. For questions regarding the PR harlequin butterfly, the Point of Contact is:

- José Cruz-Burgos, Threatened and Endangered Species Program Coordinator:
 - Mobile: 305-304-1386
 - Office phone: 786-244-0081
 - Office Direct Line: 939-320-3120
 - Email: jose_cruz-burgos@fws.gov

General Project Design Guidelines - Puerto Rican Harlequin Butterfly and 1 more species

Published by Caribbean Ecological Services Field Office for the following species included in your project

Puerto Rican Harlequin Butterfly *Atlantea tulita*

Puerto Rican Boa *Chilabothrus inornatus*



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 #s: (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

USFWS Consistency Letter



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:
Project code: 2024-0098083
Project Name: PR-RGRW-02561

06/25/2024 15:47:16 UTC

Subject: Consistency letter for the project named 'PR-RGRW-02561' 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 June 25, 2024, Susan Fischer 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-02561'. The project is located in Morovis County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.27140705,-66.41572863686943,14z>



The following description was provided for the project 'PR-RGRW-02561':

Construction of eight new hydroponic greenhouses, cisterns, an aboveground electrical line, and extension of the underground water line. Vegetation removal and some tree clearing is anticipated.

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

Consultation with the Service is not complete. The above effect determination(s) becomes applicable when the lead federal action agency or designated non-federal representative submits them as a request to the Service to rely on the Caribbean DKey in order to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead federal action agency or its designated non-federal representative with a request for its review, and as the agency deems appropriate, to submit for concurrence verification through the IPaC system. The lead federal action agency or designated non-federal representative should log into IPaC using their agency email account and click "Search by record locator." They will need to enter the record locator **899-144201172**

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

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

- Puerto Rican Harlequin Butterfly *Atlantea tulita* Threatened

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

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

Action Description

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

1. Name

PR-RGRW-02561

2. Description

The following description was provided for the project 'PR-RGRW-02561':

Construction of eight new hydroponic greenhouses, cisterns, an aboveground electrical line, and extension of the underground water line. Vegetation removal and some tree clearing is anticipated.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.27140705,-66.41572863686943,14z>



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.

Yes

11. Is the project area more than 1 acre?

No

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

No

13. Is the proposed project a new facility which would require earth moving, vegetation clearing, or debris removal using heavy machinery, the use of staging areas, construction of temporary access roads?

Yes

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

Automatically answered

Yes

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

Yes

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

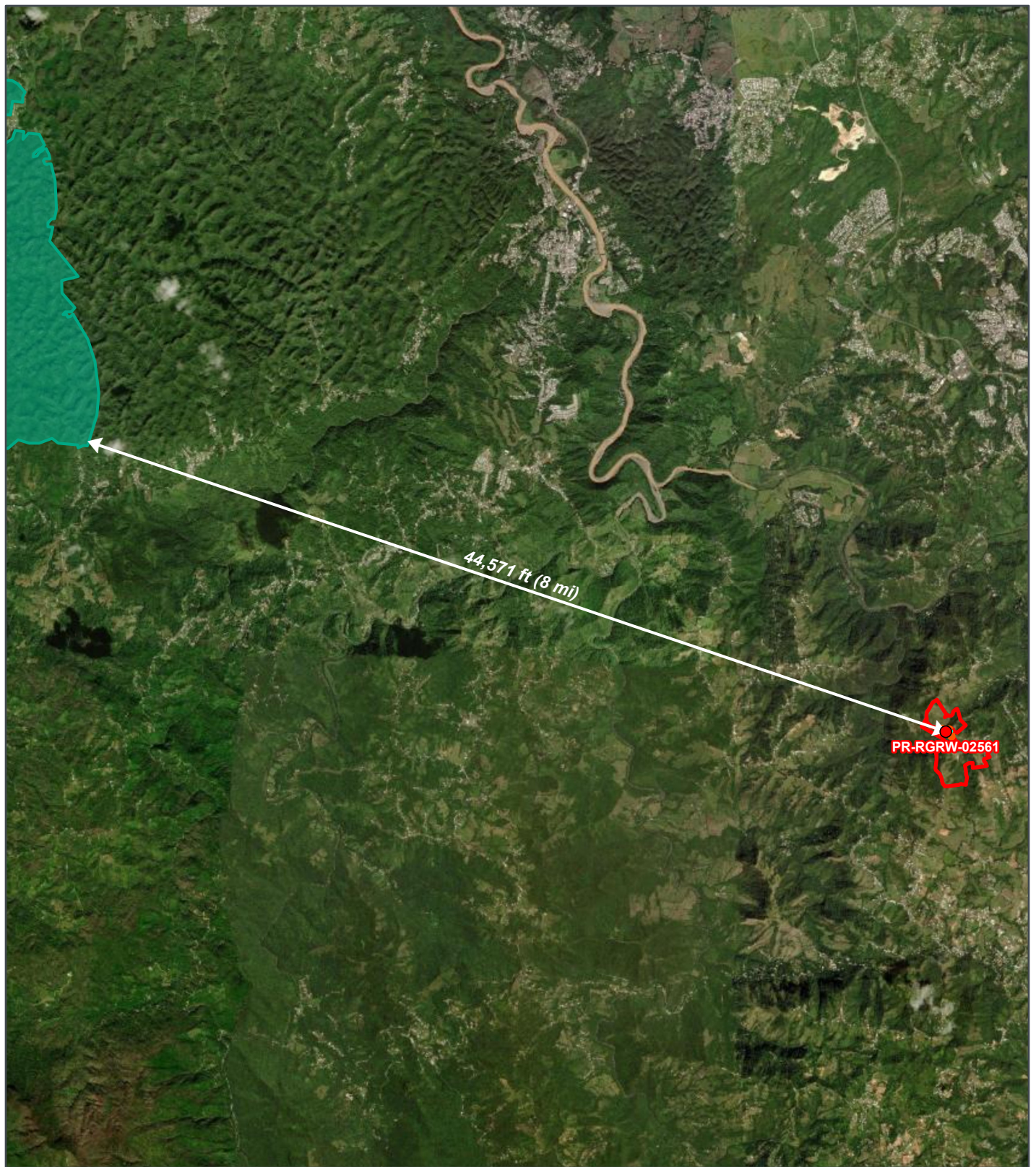
No

IPAC USER CONTACT INFORMATION

Agency: SWCA Environmental Consultants
Name: Susan Fischer
Address: 10245 West Little York Road
Address Line 2: Suite 600
City: Houston
State: TX
Zip: 77040
Email: susan.fischer@swca.com
Phone: 3463881157

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development



REGROW PROGRAM

Figure B 7-1: Critical Habitat Map

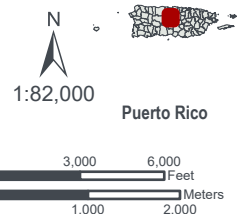
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Buffer (100-ft)
- Critical Habitat - Final
- National Wildlife Refuges

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: https://services.arcgis.com/QVENGdaPbd4LUkLV/arcgis/rest/services/USFWS_Critical_Habitat/Base_Map
Base Map: ESRI/ArcGIS Online, accessed June 2024
Updated: 6/24/2024
Layout: Critical Habitat
Aprx: 72428_ReGrowTier2Maps



Attachment 8

Explosive and Flammable Hazards Partner

Worksheet



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Explosive and Flammable Hazards (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities>

- 1. Does the proposed HUD-assisted project include a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?**

☒ No

→ Continue to Question 2.

☐ Yes

Explain:

[Click here to enter text.](#)

→ Continue to Question 5.

- 2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?**

☒ No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

☐ Yes → Continue to Question 3.

- 3. Within 1 mile of the project site, are there any current *or planned* stationary aboveground storage containers:**

- Of more than 100-gallon capacity, containing common liquid industrial fuels OR
- Of any capacity, containing hazardous liquids or gases that are not common liquid industrial fuels?

☐ No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide all documents used to make your determination.

☐ Yes → Continue to Question 4.

- 4. Is the Separation Distance from the project acceptable based on standards in the Regulation?**

Please visit HUD’s website for information on calculating Acceptable Separation Distance.

☐ Yes

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the “assessed tank.”

☐ No

→ Continue to Question 6.

Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the “assessed tank.”

5. Is the hazardous facility located at an acceptable separation distance from residences and any other facility or area where people may congregate or be present?

Please visit HUD’s website for information on calculating Acceptable Separation Distance.

☐ Yes

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

☐ No

→ Continue to Question 6.

Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

6. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to make the Separation Distance acceptable, including the timeline for implementation. If negative effects cannot be mitigated, cancel the project at this location.

Note that only licensed professional engineers should design and implement blast barriers. If a barrier will be used or the project will be modified to compensate for an unacceptable separation distance, provide approval from a licensed professional engineer.

[Click here to enter text.](#)

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project includes the purchase and installation of 8 new hydroponic greenhouses, greenhouse accessories, and submersible water pumps. The project itself is not the development of a hazardous

facility nor will the project increase residential densities. No further evaluation is required. The project is in compliance with explosive and flammable hazard requirements.

Attachment 9

**Farmlands Protection Partner Worksheet
and Prime Farmland Map**



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Farmlands Protection (CEST and EA) - PARTNER

<https://www.hudexchange.info/environmental-review/farmlands-protection>

1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?

☐ Yes → *Continue to Question 2.*

☒ No

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. Does “important farmland,” including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?

You may use the links below to determine important farmland occurs on the project site:

- Utilize USDA Natural Resources Conservation Service’s (NRCS) Web Soil Survey <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
- Check with your city or county’s planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
- Contact NRCS at the local USDA service center <http://offices.sc.egov.usda.gov/locator/app?agency=nrcs> or your NRCS state soil scientist http://soils.usda.gov/contact/state_offices/ for assistance

☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

☐ Yes → *Continue to Question 3.*

3. Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.

- Complete form [AD-1006, “Farmland Conversion Impact Rating”](#) and contact the state soil scientist before sending it to the local NRCS District Conservationist.
- Work with NRCS to minimize the impact of the project on the protected farmland. When you have finished with your analysis, return a copy of form AD-1006 to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination.

Work with the RE/HUD to determine how the project will proceed. Document the conclusion:

☐ Project will proceed with mitigation.

Explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.*

☐ Project will proceed without mitigation.

Explain why mitigation will not be made here:

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.*

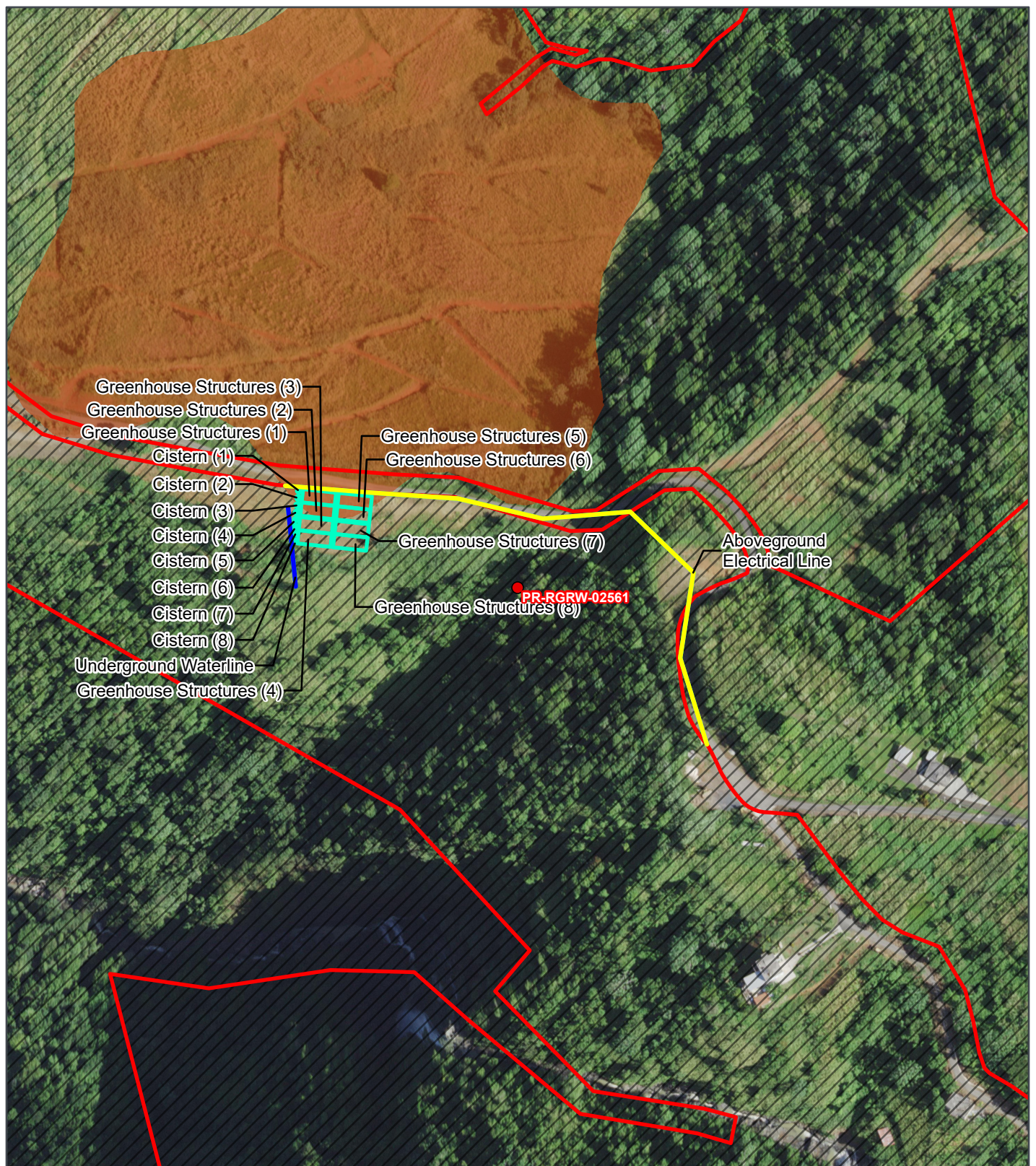
Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

This project does not include any activities that could potentially convert agricultural land to non-agricultural use. Per the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the project area crosses one mapped soil series: Caguabo-Rock outcrop complex, 20 to 60 percent slopes (CbF), Humatas clay, 20 to 40 percent slopes (HmE), Humatas clay, 40 to 60 percent slopes (HmF), and Mucara clay, 40 to 60 percent slopes (MuF). No prime farmland is within the project area; however, there is farmland of statewide importance located to the north of the project site. 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. The project is in compliance with the Farmland Protection Policy Act.



REGROW PROGRAM

Figure B 9-1: Prime Farmland Map

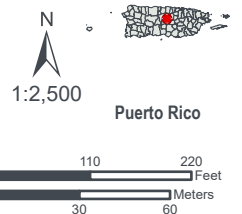
Applicant ID: PR-RGRW-02561



- Site
- Site Parcel
- Project Footprint (Option)
- Above Ground Utilities Location
- Underground Waterline
- 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
- Not prime farmland
- Not Public Information

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://websoilsurvey.nrcs.usda.gov/app/>
Base Map: USA NAIP Imagery
Imagery Year: 2022
Updated: 10/2/2024
Layout: Prime Farmland
Aprx: 72428_ReGrowTier2Maps



Attachment 10

Floodplain Management Partner Worksheet and Advisory Base Flood Elevation Map



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Floodplain Management (CEST and EA)

General Requirements	Legislation	Regulation
Executive Order 11988, Floodplain Management, requires Federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable.	Executive Order 11988 Executive Order 13690 42 USC <u>4001-4128</u> 42 USC 5154a	24 CFR 55
Reference		
https://www.hudexchange.info/environmental-review/floodplain-management		

1. Does this project meet an exemption at [24 CFR 55.12](#) from compliance with HUD’s floodplain management regulations in Part 55 or utilize the delayed compliance date for certain Office of Housing programs?

☐ Yes

Select the applicable citation at [24 CFR 55.12](#) and provide supporting documentation for the determination if applicable.

- a) ☐ HUD-assisted activities described in 24 CFR 58.34 and 58.35(b)
- b) ☐ HUD-assisted activities described in 24 CFR 50.19, except as otherwise indicated in § 50.19
- c) ☐ The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition of such floodplain and wetland property, where a permanent covenant or comparable restriction is place on the property’s continued use for flood control, wetland projection, open space, or park land, but only if:
- (1) The property is cleared of all existing buildings and walled structures; and
 - (2) The property is cleared of related improvements except those which:
 - (i) Are directly related to flood control, wetland protection, open space, or park land (including playgrounds and recreation areas);
 - (ii) Do not modify existing wetland areas or involve fill, paving, or other ground disturbance beyond minimal trails or paths; and
 - (iii) Are designed to be compatible with the beneficial floodplain or wetland function of the property.

- d) ☐ An action involving a repossession, receivership, foreclosure, or similar acquisition of property to protect or enforce HUD's financial interests under previously approved loans, grants, mortgage insurance, or other HUD assistance
- e) ☐ Policy-level actions described at 24 CFR 50.16 that do not involve site-based decisions
- f) ☐ A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland;
- g) ☐ HUD's or the responsible entity's approval of a project site, an incidental portion of which is situated in the FFRMS floodplain (not including the floodway, LiMWA, or coastal high hazard area) but only if:
 - (1) The proposed project site does not include any existing or proposed buildings or improvements that modify or occupy the FFRMS floodplain except de minimis improvements such as recreation areas and trails; and
 - (2) the proposed project will not result in any new construction in or modifications of a wetland
- h) ☐ Issuance or use of Housing Vouchers or other forms of rental subsidy where HUD, the awarding community, or the public housing agency that administers the contract awards rental subsidies that are not project-based (i.e., do not involve site-specific subsidies)
- i) ☐ Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

Exemptions do not apply due to the project activities being purchase of materials to construct eight (8) new hydroponic greenhouses and the purchase of greenhouse accessories (ground coverings, plastic sheets, saran sheets, and poly-fasteners) and submersible water pumps.

Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

☐ Yes. Office of Housing programs utilizing the January 1, 2025 compliance date. These reviews must comply with the 2013 version of the Part 55 regulations. Continue to Worksheet Summary for 2013 version to upload supporting documentation.

☒ No. Continue to Question 2.

2. Does the project include a Critical Action?

☐ Yes. Describe the Critical Action. Examples of Critical Actions include projects involving hospitals, fire and police stations, nursing homes, hazardous chemical storage, storage of valuable records, and utility plants. Continue to Question 4.

No, the project is not a Critical Action as defined in 24 CFR 55.2(b)(3)

☒ No. Continue to Question 3.

3. Determine the extent of the FFRMS floodplain and provide mapping documentation in support of that determination.

The extent of the FFRMS floodplain can be determined using a Climate Informed Science Approach (CISA), 0.2 percent flood approach (0.2 PFA), or freeboard value approach (FVA). For projects in areas without available CISA data or without FEMA Flood Insurance Rate Maps (FIRMs), Flood Insurance Studies (FISs) or Advisory Base Flood Elevations (ABFEs), use the best available information to determine flood elevation. Include documentation and an explanation of why this is the best available information for the site. Note that newly constructed and substantially improved structures must be elevated to the FFRMS floodplain regardless of the approach chosen to determine the floodplain.

Select one of the following three options:

☐ CISA for non-critical actions. If using a local tool, data, or resources, ensure that the FFRMS elevation is higher than would have been determined using the 0.2 PFA or the FVA.

☒ 0.2-PFA. Where FEMA has defined the 0.2-percent-annual-chance floodplain, the FFRMS floodplain is the area that FEMA has designated as within the 0.2-percent-annual-chance floodplain.

☐ FVA. If neither CISA nor 0.2-PFA is available, for non-critical actions, the FFRMS floodplain is the area that results from adding two feet to the base flood elevation as established by the effective FIRM or FIS or—if available—a FEMA-provided preliminary or pending FIRM or FIS or advisory base flood elevations, whether regulatory or informational in nature. However, an interim or preliminary FEMA map cannot be used if it is lower than the current FIRM or FIS.

a. Does your project occur in the FFRMS floodplain?

☐ Yes, continue to part b.

☒ No. Review for floodplain management is complete.

b. Is your project located in any of the floodplain categories below? Select all that apply. If none apply, continue to question 7.

☐ Floodway: *Continue to Question 5. Floodways.*

☐ Coastal High Hazard Area (V Zone) or Limit of Moderate Wave Action (LiMWA): *Continue to Question 6. Coastal High Hazard Areas and LiMWAs.*

4. Determine the extent of the FFRMS floodplain and provide mapping documentation in support of that determination.

The extent of the FFRMS floodplain can be determined using a Climate Informed Science Approach (CISA), or the higher of the 0.2 percent flood approach (0.2 PFA), or freeboard value approach (FVA). For projects in areas without available CISA data or without FEMA Flood Insurance Rate Maps (FIRMs), Flood Insurance Studies (FISs) or Advisory Base Flood Elevations (ABFEs), use the best available information to determine flood elevation. Note that newly constructed and substantially improved structures must be elevated to the FFRMS floodplain regardless of the approach chosen to determine the floodplain.

Utilize CISA to determine the FFRMS floodplain for critical actions

☐ CISA for Critical Actions. If using a local tool, ensure that the FFRMS elevation provided is higher than the 0.2 PFA or 3' above the base flood elevation.

OR;

Choose the higher of 0.2 PFA or FVA elevations

☐ 0.2-PFA. Where FEMA has defined the 0.2-percent-annual-chance floodplain, the FFRMS floodplain is the area that FEMA has designated as within the 0.2-percent-annual-chance floodplain.

☐ FVA. For critical actions, the FFRMS floodplain is the area that results from adding three feet to the base flood elevation as established by the effective FEMA FIRM or FIS or—if available—a FEMA-provided preliminary or pending FIRM or FIS or advisory base flood elevations, whether regulatory or informational in nature. However, an interim or preliminary FEMA map cannot be used if it is lower than the current FIRM or FIS.

a. Does your project occur in the FFRMS floodplain?

☐ Yes, continue to part b.

☐ No. Review for floodplain management is complete.

b. Is your project located in any of the floodplain categories below? Select all that apply. If none apply, continue to question 7.

☐ Floodway: *Continue to Question 5. Floodways.*

☐ Coastal High Hazard Area (V Zone) or LiMWA: *Continue to Question 6. Coastal High Hazard Areas and LiMWAs.*

5. Floodways

Do the floodway exemptions at [55.8](#) or [55.21](#) apply?

☐ Yes

The 8-Step Process is required. Document mitigation measures necessary to meet the requirements in 55.8 or 55.21. Provide a completed 8-Step Process, including the early public notice and the final notice.

Continue to Question 7. 8-Step Process.

☐ No

Federal assistance may not be used at this location. You must either choose an alternate site or cancel the project at this location.

6. Coastal High Hazard Area (V Zone) and LiMWAs

Do the exemptions at [55.8](#) or [55.21](#) apply?

☐ Yes

The 8-Step Process is required. Document mitigation measures necessary to meet the requirements in 55.8 or 55.21. Provide a completed 8-Step Process, including the early public notice and the final notice.

Continue to Question 7. 8-Step Process.

☐ No

Federal assistance may not be used at this location. You must either choose an alternate site or cancel the project at this location.

7. 8-Step Process.

Does the 8-Step Process apply? Select one of the following options:

☐ 8-Step Process is inapplicable per 55.13.

Select the applicable citation:

- ☐ (a) HUD's mortgage insurance actions and other financial assistance for the purchasing, mortgaging, or refinancing of existing one- to four-family properties in communities that are in the Regular Program of the NFIP and in good standing (i.e., not suspended from program eligibility or placed on probation under 44 CFR 59.24), where the action is not a critical action and the property is not located in a floodway, coastal high hazard area, or LiMWA;
- ☐ (b) Financial assistance for minor repairs or improvements on one- to four-family properties that do not meet the thresholds for "substantial improvement" under § 55.2(b)(12);
- ☐ (c) HUD or a recipient's actions involving the disposition of individual HUD or recipient held, one- to four-family properties;
- ☐ (d) HUD guarantees under the Loan Guarantee Recovery Fund Program (24 CFR part 573), where any new construction or rehabilitation financed by the existing loan or mortgage has been completed prior to the filing of an application under the program, and the refinancing will not allow further construction or rehabilitation, nor result in any physical impacts or changes except for routine maintenance;
- ☐ (e) The approval of financial assistance to lease units within an existing structure located within the floodplain, but only if;
 - (1) The structure is located outside the floodway or coastal high hazard area, and is in a community that is in the Regular Program of the NFIP and in good standing (i.e., not suspended from program eligibility or placed on probation under 44 CFR 59.24); and
 - (2) The project is not a critical action; and
 - (3) The entire structure is or will be fully insured or insured to the maximum extent available under the NFIP for at least the term of the lease.
- ☐ (f) Special projects for the purpose of improving efficiency of utilities or installing renewable energy that involve the repair, rehabilitation, modernization, weatherization, or improvement of existing structures or infrastructure, do not meet the thresholds for "substantial improvement" under § 55.2(b)(12), and do not include the installation of equipment below the FFRMS floodplain elevation.

Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

☐ 5-Step Process is applicable per 55.14.

Provide documentation of 5-Step Process.

Select the applicable citation:

- ☐ (a) HUD actions involving the disposition of HUD-acquired multifamily housing projects or “bulk sales” of HUD-acquired one- to four-family properties in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and in good standing (i.e., not suspended from program eligibility or placed on probation under 44 CFR 59.24).
- ☐ (b) HUD's actions under the National Housing Act (12 U.S.C. 1701) for the purchase or refinancing of existing multifamily housing projects, hospitals, nursing homes, assisted living facilities, board and care facilities, and intermediate care facilities, in communities that are in good standing under the NFIP.
- ☐ (c) HUD's or the recipient's actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing multifamily housing projects, hospitals, nursing homes, assisted living facilities, board and care facilities, intermediate care facilities, and one- to four-family properties, in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and are in good standing, provided that the number of units is not increased more than 20 percent, the action does not involve a conversion from nonresidential to residential land use, the action does not meet the thresholds for “substantial improvement” under § 55.2(b)(10), and the footprint of the structure and paved areas is not increased by more than 20 percent.
- ☐ (d) HUD's (or the recipient's) actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing nonresidential buildings and structures, in communities that are in the Regular Program of the NFIP and are in good standing, provided that the action does not meet the thresholds for “substantial improvement” under § 55.2(b)(10) and that the footprint of the structure and paved areas is not increased by more than 20 percent
- ☐ (e) HUD's or the recipient's actions under any HUD program involving the repair, rehabilitation, or replacement of existing nonstructural improvements including streets, curbs and gutters, where any increase of the total impervious surface area of the facility is de minimis. This provision does not include critical actions, levee systems, chemical storage facilities (including any tanks), wastewater facilities, or sewer lagoons.

Continue to Question 8. Mitigation.

☐ 8-Step Process applies.

Provide a completed 8-Step Process, including the early public notice and the final notice.

Continue to Question 8. Mitigation.

8. Mitigation

For the project to comply with this section, all adverse impacts must be mitigated. Explain in detail the measures that must be implemented to mitigate the impact or effect, including the timeline for implementation. Note: newly constructed and substantially improved structures within the FFRMS floodplain must be elevated to the FFRMS floodplain elevation or floodproofed, if applicable.

N/A

Which of the following if any mitigation/minimization measures have been identified for this project in the 8-Step or 5-Step Process? Select all that apply.

- ☐ Buyout and demolition or other supported clearance of floodplain structures
- ☐ Insurance purchased in excess of statutory requirement under the Flood Disaster Protection Act of 1973
- ☐ Permeable surfaces
- ☐ Natural landscape enhancements that maintain or restore natural hydrology
- ☐ Planting or restoring native plant species
- ☐ Bioswales
- ☐ Stormwater capture and reuse
- ☐ Green or vegetative roofs with drainage provisions
- ☐ Natural Resources Conservation Service conservation easements or similar easements
- ☐ Floodproofing of structures as allowable (e.g. non-residential floors)
- ☐ Elevating structures (including freeboard above the required base flood elevations)
- ☐ Levee or structural protection from flooding
- ☐ Channelizing or redefining the floodway or floodplain through a Letter of Map Revision (LOMR)

Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

Worksheet Summary

Compliance Determination

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- FIRM panel numbers
- CISA data or maps
- Information on other data or tools used or accessed
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

Include all documentation supporting your findings in your submission to HUD

See below.

Worksheet Summary for 2013 Version
Compliance Determination

Attach 'Floodplain Management Partner Worksheet' (OMB No. 2506-0177), FIRM map indicating project location, and summary of 8-step or 5-step decision making process if applicable.

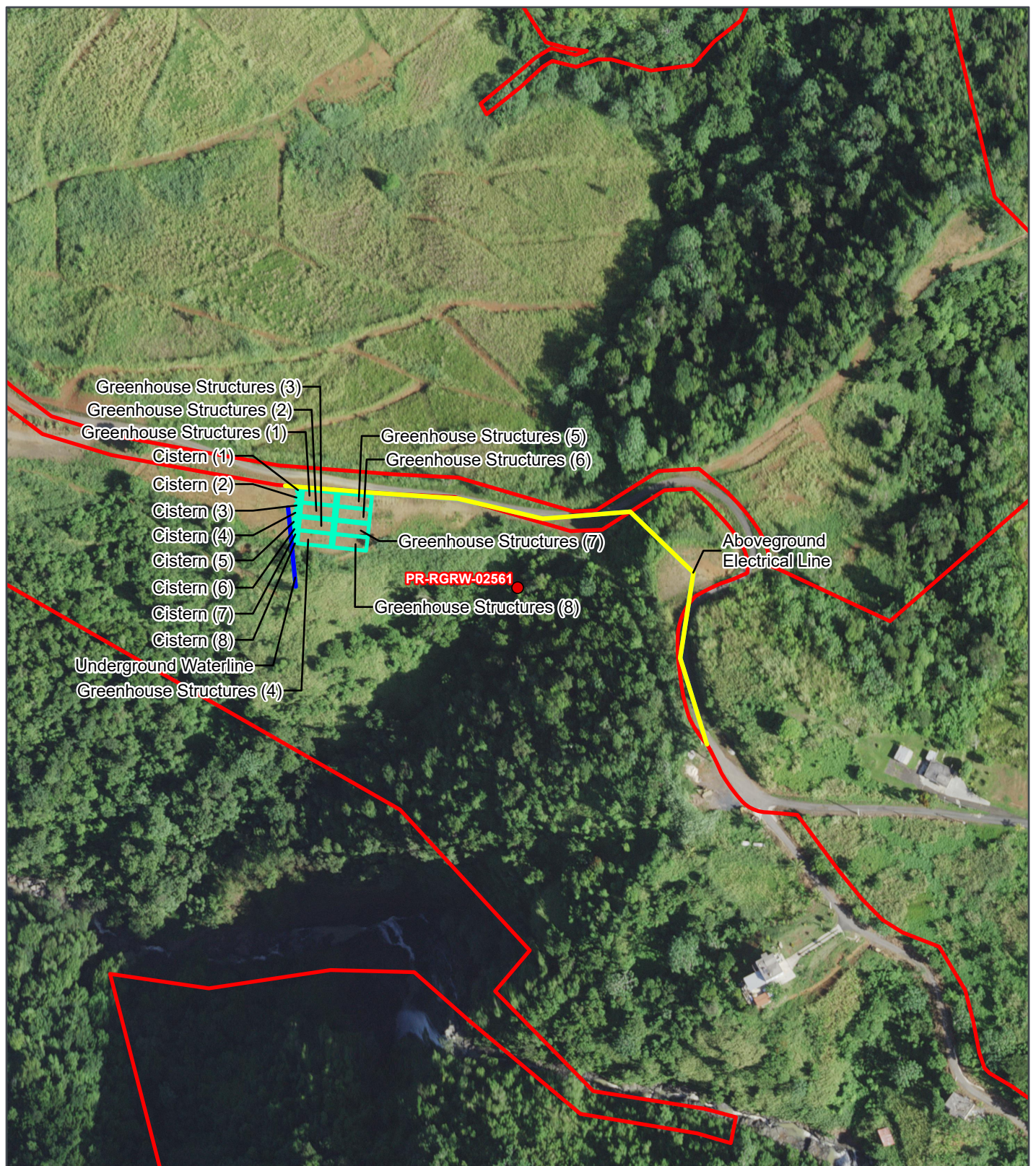
Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

Include all documentation supporting your findings in your submission to HUD

An Advisory Base Flood Elevation (ABFE) map was developed by FEMA, which shows the project site is in Flood Zone X. The project site is not located in the 100-year floodplain or ABFE special flood hazard area. The extent of the FFRMS floodplain was determined using the 0.2 percent flood approach. The project is in compliance with Executive Order 11988, as amended by Executive Order 13690 particularly section 2(a); 24 CFR Part 55. Preliminary Flood Insurance Rate Maps (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 Morovis; therefore, PFIRM information was not available for the area and therefore not considered in the review.

HUD implemented new floodplain regulations under 89 FR 30850 effective June 24, 2024, which created the Federal Flood Risk Management Standard (FFRMS). The current project comprises non-critical actions that lie outside the 0.2-percent-annual-chance (500-year flood elevation), which is the approach used for this project to comply with the FFRMS; therefore, mitigation is not required, and the project is in compliance with 24 CFR Part 55.



REGROW PROGRAM

Figure B 10-1: Advisory Base Flood Elevation For 100-Year Floodplain Map

Applicant ID: PR-RGRW-02561

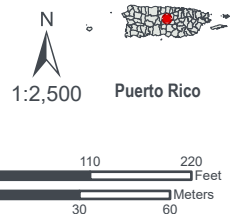
SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Underground Waterline
- Above Ground Utilities Location
- ~ Advisory Base Flood Elevation (ABFE)
- 0.2% Annual Chance Flood
- 1% Annual Chance Flood
- Zone A
- Zone A-Floodway
- Zone AE
- Coastal A Zone
- Coastal A Zone and Floodway
- Zone AE-Floodway
- Zone AO
- Zone VE
- Zone X (500-year floodplain)
- Zone/BFE Boundary

Morovis, Puerto Rico 00687

Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: https://gis.fema.gov/arcgis/rest/services/DR/PuertoRico_ABFE_1PCT/MapServer
Base Map: USA NAIP Imagery
Imagery Year: 2022
Updated: 10/2/2024
Layout: ABFE 1Pct
Aprx: 72428_ReGrowTier2Maps



Attachment 11

**Historic Preservation Partner Worksheet
and SHPO Consultation**



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Historic Preservation (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/historic-preservation>

Threshold

Is Section 106 review required for your project?

- ☐ No, because a Programmatic Agreement states that all activities included in this project are exempt. (See the [PA Database](#) to find applicable PAs.)

Either provide the PA itself or a link to it here. Mark the applicable exemptions or include the text here:

[Click here to enter text.](#)

→ *Continue to the Worksheet Summary.*

- ☐ No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].

Either provide the memo itself or a link to it here. Explain and justify the other determination here:

[Click here to enter text.](#)

→ *Continue to the Worksheet Summary.*

- ☒ Yes, because the project includes activities with potential to cause effects (direct or indirect). → *Continue to Step 1.*

The Section 106 Process

After determining the need to do a Section 106 review, HUD or the RE will initiate consultation with regulatory and other interested parties, identify and evaluate historic properties, assess effects of the project on properties listed on or eligible for the National Register of Historic Places, and resolve any adverse effects through project design modifications or mitigation.

Step 1: Initiate consultation

Step 2: Identify and evaluate historic properties

Step 3: Assess effects of the project on historic properties

Step 4: Resolve any adverse effects

Only RE or HUD staff may initiate the Section 106 consultation process. Partner entities may gather information, including from SHPO records, identify and evaluate historic properties, and make initial assessments of effects of the project on properties listed in or eligible for the National Register of Historic Place. Partners should then provide their RE or HUD with all of their analysis and documentation so that they may initiate consultation.

Step 1 - Initiate Consultation

The following parties are entitled to participate in Section 106 reviews: Advisory Council on Historic Preservation; State Historic Preservation Officers (SHPOs); federally recognized Indian tribes/Tribal Historic Preservation Officers (THPOs); Native Hawaiian Organizations (NHOs); local governments; and project grantees. The general public and individuals and organizations with a demonstrated interest in a project may participate as consulting parties at the discretion of the RE or HUD official. Participation varies with the nature and scope of a project. Refer to HUD's website for guidance on consultation, including the required timeframes for response. Consultation should begin early to enable full consideration of preservation options.

Use the [When To Consult With Tribes checklist](#) within [Notice CPD-12-006: Process for Tribal Consultation](#) to determine if the RE or HUD should invite tribes to consult on a particular project. Use the [Tribal Directory Assessment Tool \(TDAT\)](#) to identify tribes that may have an interest in the area where the project is located. Note that only HUD or the RE may initiate consultation with Tribes. Partner entities may prepare a draft letter for the RE or HUD to use to initiate consultation with tribes, but may not send the letter themselves.

List all organizations and individuals that you believe may have an interest in the project here:
SHPO, PRDOH.

→ *Continue to Step 2.*

Step 2 - Identify and Evaluate Historic Properties

Provide a preliminary definition of the Area of Potential Effect (APE), either by entering the address(es) or providing a map depicting the APE. Attach an additional page if necessary.

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

Gather information about known historic properties in the APE. Historic buildings, districts and archeological sites may have been identified in local, state, and national surveys and registers, local historic districts, municipal plans, town and county histories, and local history websites. If not already listed on the National Register of Historic Places, identified properties are then evaluated to see if they are eligible for the National Register. Refer to HUD's website for guidance on identifying and evaluating historic properties.

In the space below, list historic properties identified and evaluated in the APE.

Every historic property that may be affected by the project should be listed. For each historic property or district, include the National Register status, whether the SHPO has concurred with the finding, and whether information on the site is sensitive. Attach an additional page if necessary.

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 archaeologist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) who searched the records at the SHPO and the Instituto de Cultura Puertorriqueña which shows that there are no reported archaeological materials or significant cultural properties within a half-mile (mi) radius of the project location. No archaeological evaluations or studies of cultural resources have been conducted within the 0.5-mi review radius with no cultural resources found.

The proposed project is located in a rural, mountainous area in the central portion of the island at an elevation of 1,755 feet (ft; 535 meters [m]) above mean sea level. Per the USGS/NRCS Web Soil Survey, the project area crosses four (4) mapped soil series: CbF (Caguabo-Rock outcrop complex, 20 to 60 percent slopes); HmE (Humatas clay, 20 to 40 percent slopes); HmF (Humatas clay, 40 to 60 percent slopes); and MuF (Mucara clay, 40 to 60 percent slopes). The project area APE is in the south portion of the municipality of Morovis. The general project area is surrounded by hills and mountains with native and introduced grasses, shrubs, and trees. There are agricultural fields in the north, moderate slopes with residential neighborhood expanding in the east, steep slopes with dense forested vegetation in the south, and moderate to steep slopes in the west. The closest freshwater source is Río Sana Muerto, located 0.10 mi (0.16 kilometers [km]) south of the project area. The north coast is approximately 15 mi (24 km) from the project area.

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/listed Traditional Urban Center or Historic District. No Section 106 evaluations have occurred within 0.5 mi of the project area.

The surrounding area is rural and mountainous. Current Google Earth Pro imagery shows a few major roads near the application parcel and scattered development nearby. Imagery from Google Earth Pro shows that the project parcel was undeveloped prior to 2006, when one building, presumably owner's home, was built. Another building was added to the property ca. 2012. Both structures are situated southeast of the property, 1,000 feet and 1,700 feet away from the project location, respectively. The earliest available aerial imagery is from 1977, accessed through Earth Explorer (<https://earthexplorer.usgs.gov/>). It shows similar development patterns in the region, with a few scattered developments north and south of the parcel and no development in the APE. Thus, it is determined that no historicage properties will be affected by the proposed project.

Provide the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination.

Was a survey of historic buildings and/or archeological sites done as part of the project?

If the APE contains previously unsurveyed buildings or structures over 50 years old, or there is a likely presence of previously unsurveyed archeological sites, a survey may be necessary. For Archeological surveys, refer to HP Fact Sheet #6, [Guidance on Archeological Investigations in HUD Projects](#).

☐ Yes → Provide survey(s) and report(s) and continue to Step 3.

Additional notes:

[Click here to enter text.](#)

☐ No → *Continue to Step 3.*

Step 3 - Assess Effects of the Project on Historic Properties

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. ([36 CFR 800.5](#)) Consider direct and indirect effects as applicable as per HUD guidance.

Choose one of the findings below to recommend to the RE or HUD.

Please note: this is a recommendation only. It is **not** the official finding, which will be made by the RE or HUD, but only your suggestion as a Partner entity.

☒ No Historic Properties Affected

Document reason for finding:

☒ No historic properties present.

☐ Historic properties present, but project will have no effect upon them.

☐ No Adverse Effect

Document reason for finding and provide any comments below.

Comments may include recommendations for mitigation, monitoring, a plan for unanticipated discoveries, etc.

[Click here to enter text.](#)

☐ Adverse Effect

Document reason for finding:

Copy and paste applicable Criteria into text box with summary and justification.

Criteria of Adverse Effect: [36 CFR 800.5](#)]

[Click here to enter text.](#)

Provide any comments below:

Comments may include recommendations for avoidance, minimization, and/or mitigation.

[Click here to enter text.](#)

Remember to provide all documentation that justifies your National Register Status determination and recommendations along with this worksheet.



GOVERNMENT OF PUERTO RICO

STATE HISTORIC PRESERVATION OFFICE

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

Monday, November 18, 2024

Lauren B Poche

269 Avenida Ponce de León, San Juan, PR, 00917

SHPO-CF-10-22-24-03 **PR-RGRW-02561** (Morovis), Más Fresco Que Fresco L.L.C

Dear Ms. Poche,

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

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

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

Sincerely,

Carlos A. Rubio Cancela

State Historic Preservation Officer

CARC/GMO/MB



Cuartel de Ballajá (Tercer Piso), Calle Norzagaray, Esq. Beneficencia, Viejo San Juan, PR 00901 | PO Box 9023935, San Juan, PR 00902-3935



GOVERNMENT OF PUERTO RICO
DEPARTMENT OF HOUSING

April 30, 2024

Arch. Carlos A. Rubio Cancela

Executive Director

Puerto Rico State Historic Preservation Office

Cuartel de Ballajá, Third Floor

San Juan, Puerto Rico 00901

Re: Authorization to Submit Documents for Consultation

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 review services, among others, that will support the objectives of the agenda for both CDBG-DR and CDBG -MIT Programs.

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,

Aldo A. Rivera Vázquez, PE

Director

Division of Environmental Permitting and Compliance

Office of Disaster Recovery

October 22, 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-02561 – Más Fresco Que Fresco L.L.C – Barrio Perchas Carretera 155 km 1.5, Morovis, Puerto Rico – *No Historic Properties Affected***

Dear Architect Rubio Cancela,

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, HORNE is providing information for your review and requesting your concurrence regarding the above-referenced projects on behalf of the Puerto Rico Department of Housing (PRDOH). On February 9, 2018, an allocation of Community Development Block Grant - Disaster Recovery (CDBG-DR) funds were 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, HORNE is submitting documentation for activities proposed by Más Fresco Que Fresco L.L.C. located at Barrio Perchas Carretera, 155 km 1.5, in the municipality of Morovis. The undertaking for this project includes the purchase of eight (8) new hydroponic greenhouses and the purchase of associated equipment, including greenhouse accessories and submersible water pumps. The greenhouses and cisterns will be located on the northern portion of the project property, where the ground is bare and relatively flat. No trees or vegetation are located within the project footprint. Substantial grading, tree removal, and pruning activities are not required. Each greenhouse will be 1,000 square feet (sq ft) in size (50 feet [ft] by 20 ft) and 12 ft in height for a total area of 8,000 sq ft of the project site. The greenhouses will be secured to the ground using a total of approximately 96 posts attached to concrete footers with a maximum depth of 2 ft. The floor of the greenhouses will be covered with greenhouse cloth to prevent mud and undergrowth vegetation inside the structures. Other greenhouse accessories will include 9,600 sq ft of impermeable plastic used to cover the structures, an 8,800-sq ft shade cover, and poly fasteners to secure the shade cover when needed.

The project also includes the installation of eight (8) 25-sq ft cisterns (5 ft by 5 ft) to hold water for the hydroponic system. The cisterns will be about the western side of the proposed greenhouses for an additional project footprint area of 200 sq ft and will be placed directly on the ground with no additional ground-disturbing activities. The project includes the purchase of 20 submersible water pumps that will be used to supply water from the cisterns to the hydroponics system. No ground disturbance is required for the submersible pumps.

There are existing water and electrical connections located at the entrance of the property, approximately 850 ft west of the proposed location of the greenhouses. Electricity is provided to the property by LUMA and GENERA, and water is supplied to the property by Autoridad de Acueductos y Alcantarillados (AAA) / Puerto Rico Aqueducts and Sewers Authority (PRASA).

The project includes the installation of an above-ground electrical line from the existing electrical connection located at the entrance of the property to extend electricity to the project site, which will not require any ground disturbance.

The project will require an underground extension of the landowner's southern water line. The new water line will extend approximately 115 to 135 ft from either the northern or northeastern end of the existing southern water line to the proposed location of the greenhouses. The water line extension will be installed up to 3 ft underground. The area of disturbance will be recovered with soil removed initially for installation of the water line to allow for revegetation and continued use of the property, including the access driveway and other internal pathways. The Applicant will fund the water and electrical connections, which are not included in the Applicant's intended use of grant funds.

The project will have ground disturbance for the installation of the footings for the new greenhouses and the installation of the water pipeline. No tree clearing or vegetation pruning is required for the construction of the greenhouses or cisterns. Based on the submitted documentation, the Program requests a concurrence that a finding of no historic properties affected is appropriate for this proposed project.

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


Kindest regards,




Lauren Bair Poche, M.A.

Architectural Historian, EHP Senior Manager
LBP/EJR/JCO

Attachments

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC		
Case ID: PR-RGRW-02561		City: Morovis, P.R.

Project Location: Barrio Perchas Carretera 155 km 1.5, Morovis, Puerto Rico 00687	
Project Coordinates: (as provided by applicant during field visit) Greenhouse Structures (1): 18.271688, -66.415708 Greenhouse Structures (2): 18.271634, -66.415714 Greenhouse Structures (3): 18.271573, -66.415721 Greenhouse Structures (4): 18.271519, -66.415727 Greenhouse Structures (8): 18.271503, -66.415572 Greenhouse Structures (7): 18.271558, -66.415566 Greenhouse Structures (6): 18.271618, -66.415559 Greenhouse Structures (5): 18.271673, -66.415553 Cistern (1): 18.271716, -66.415795 Cistern (2): 18.271687, -66.415798 Cistern (3): 18.271657, -66.415801 Cistern (4): 18.271627, -66.415804 Cistern (5): 18.271598, -66.415808 Cistern (6): 18.271568, -66.415811 Cistern (7): 18.271538, -66.415814 Cistern (8): 18.271508, -66.415818 Below Ground Waterline: 18.271484, -66.415825 Aboveground Electrical Line: 18.271620, -66.414483	
TPID (Número de Catastro): 193-000-002-38	
Type of Undertaking: <input type="checkbox"/> Substantial Repair/Improvements <input checked="" type="checkbox"/> New Construction	
Construction Date (AH est.): 2006	Property Size (acres): 139.67 acres total Greenhouse Structures (1): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (2): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (3): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (4): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (8): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (7): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (6): 0.023 acre (1,000 sq. ft.) Greenhouse Structures (5): 0.023 acre (1,000 sq. ft.) Cistern (1): 0.001 acre (28 sq. ft.) Cistern (2): 0.001 acre (28 sq. ft.) Cistern (3): 0.001 acre (28 sq. ft.) Cistern (4): 0.001 acre (28 sq. ft.) Cistern (5): 0.001 acre (28 sq. ft.) Cistern (6): 0.001 acre (28 sq. ft.) Cistern (7): 0.001 acre (28 sq. ft.) Cistern (8): 0.001 acre (28 sq. ft.) Below Ground Waterline: 0.003 acre (120 sq. ft.) Aboveground Electrical Line: 0.021 acre (921 sq. ft.)

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC		
Case ID: PR-RGRW-02561	City: Morovis, P.R.	

SOI-Qualified Architect/Architectural Historian: Julia Russ, MURP and Ella McIntire, M.A.
Date Reviewed: June 26, 2024
SOI-Qualified Archaeologist: Delise Torres Ortiz, M.A.
Date Reviewed: May 22, 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 project includes the purchase of materials to construct eight (8) new hydroponic greenhouses and the purchase of associated equipment, including greenhouse accessories and submersible water pumps. The greenhouses and cisterns will be located in the northern portion of the project property where the ground is bare and relatively flat. No trees or vegetation are located within the project footprint. Substantial grading activities are not required.

Each greenhouse will be 1,000 square feet (sq ft) in size (50 feet [ft] by 20 ft) and 12 ft in height for a total area of 8,000 sq ft of the project site. The greenhouses will be secured to the ground using a total of approximately 96 posts attached to concrete footers with a maximum depth of 2 ft. The floor of the greenhouses will be covered with greenhouse cloth to prevent mud and undergrowth vegetation inside the structures. Other greenhouse accessories will include 9,600 sq ft of impermeable plastic used to cover the structures, an 8,800-sq ft shade cover, and poly fasteners to secure the shade cover when needed.

The project also includes the installation of eight (8) 25-sq ft cisterns (5 ft by 5 ft) to hold water for the hydroponic system. The cisterns will be about the western side of the proposed greenhouses for an additional project footprint area of 200 sq ft and will be placed directly on the ground with no additional ground-disturbing activities. The project includes the purchase of 20 submersible water pumps that will be used to supply water from the cisterns to the hydroponics system. No ground disturbance is required for the submersible pumps.

There is an existing water connection located at the entrance of the property, approximately 850 feet west of the proposed location of the greenhouses. In addition, a new electrical connection will be installed in close proximity to the existing water connection. Electricity is provided to the property by LUMA and GENERA and water is

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC	
Case ID: PR-RGRW-02561	City: Morovis, P.R.

provided to the property by Autoridad De Acueductos Y Alcantarillados (AAA) / Puerto Rico Aqueducts and Sewers Authority (PRASA).

The project includes the installation of an above-ground electrical line from the proposed electrical connection located at the entrance of the property along the existing access road to extend electricity to the project site. The electric line extension will include the installation of approximately 8 to 9 electric poles with anchors installed up to 8 ft below ground approximately 130 feet apart. The proposed electric poles will be 25 to 35 ft in height and would be constructed of wood. The final location of the electric poles will be determined by the energy provider at the time of installation. Vegetation pruning and some tree removal is expected.

The project will require an underground extension of the landowner's southern water line. This water line extension will extend approximately 115 to 135 ft from either the northern or northeastern end of the existing southern water line to the proposed location of the greenhouses.


The water line extension will be installed up to 3 ft underground. The area of disturbance will be recovered with soil originally removed for installation of the water line extension to allow for revegetation and continued use of the property, including the access driveway and other internal pathways. The water and electrical connections would be funded by the Applicant's own funds and are not included in the Applicant's intended use of grant funds.

The project will have ground disturbance for the installation of the footings for the new greenhouses and installation of the water pipeline. No tree clearing or vegetation pruning is required for construction of the greenhouses or cisterns; however, some tree removal and vegetation pruning is expected for installation of the proposed above-ground electric line. The applicant is leasing the property.

Area of Potential Effects

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

Identification of Historic Properties - Archaeology

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM REGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC		
Case ID: PR-RGRW-02561	City: Morovis, P.R.	


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 archaeologist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) who searched the records at the SHPO and the Instituto de Cultura Puertorriqueña which shows that there are no reported archaeological materials or significant cultural properties within a half-mile (mi) radius of the project location. No archaeological evaluations or studies of cultural resources have been conducted within the 0.5-mi review radius with no cultural resources found.

The proposed project is located in a rural, mountainous area in the central portion of the island at an elevation of 1,755 feet (ft; 535 meters [m]) above mean sea level. Per the USGS/NRCS Web Soil Survey, the project area crosses four (4) mapped soil series: CbF (Caguabo-Rock outcrop complex, 20 to 60 percent slopes); HmE (Humatas clay, 20 to 40 percent slopes); HmF (Humatas clay, 40 to 60 percent slopes); and MuF (Mucara clay, 40 to 60 percent slopes). The project area APE is in the south portion of the municipality of Morovis. The general project area is surrounded by hills and mountains with native and introduced grasses, shrubs, and trees. There are agricultural fields in the north, moderate slopes with residential neighborhood expanding in the east, steep slopes with dense forested vegetation in the south, and moderate to steep slopes in the west. The closest freshwater source is Río Sana Muerto, located 0.10 mi (0.16 kilometers [km]) south of the project area. The north coast is approximately 15 mi (24 km) from the project area.


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/listed Traditional Urban Center or Historic District. No Section 106 evaluations have occurred within 0.5 mi of the project area.

The surrounding area is rural and mountainous. Current Google Earth Pro imagery shows a few major roads near the application parcel and scattered development nearby. Imagery from Google Earth Pro shows that the project parcel was undeveloped prior to 2006, when one building, presumably owner's home, was built. Another building was added to the property ca. 2012. Both structures are situated southeast of the property, 1,000 feet and 1,700 feet away from the project location, respectively. The earliest available aerial imagery is from 1977, accessed through Earth Explorer (<https://earthexplorer.usgs.gov/>). It shows

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC	
Case ID: PR-RGRW-02561	City: Morovis, P.R.

similar development patterns in the region, with a few scattered developments north and south of the parcel and no development in the APE. Thus, it is determined that no historic-age properties will be affected by the proposed project.


PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC	
Case ID: PR-RGRW-02561	City: Morovis, P.R.

Determination

The following historic properties have been identified within the APE:

- Direct Effect:
 - None
- Indirect Effect:
 - None

Based on the results of our historic property identification efforts, the Program has determined that project actions will not affect historic properties that compose the Area of Potential Effect. The project area is not within or adjacent to the boundaries of a National Register of Historic Places (NRHP)-eligible or listed historic district or Traditional Urban Center. There are no reported archaeological materials or significant cultural properties within a half-mile radius of the proposed project location. No known archaeological sites or NRHP listed/eligible historic properties are within or adjacent to the property or the parcel in which the Area of Potential Effect of case **PR-RGRW-02561** is located. The closest freshwater body is approximately 0.10 mi (0.16 km) south of the project area. The size of the proposed project activities is very small (0.2142 acres or 9,331 sq ft) and construction of private roads, residential structures, and agricultural practices have impacted the surrounding terrain. Therefore, no historic properties will be affected by the proposed project activities.

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC		
Case ID: PR-RGRW-02561		City: Morovis, P.R.

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

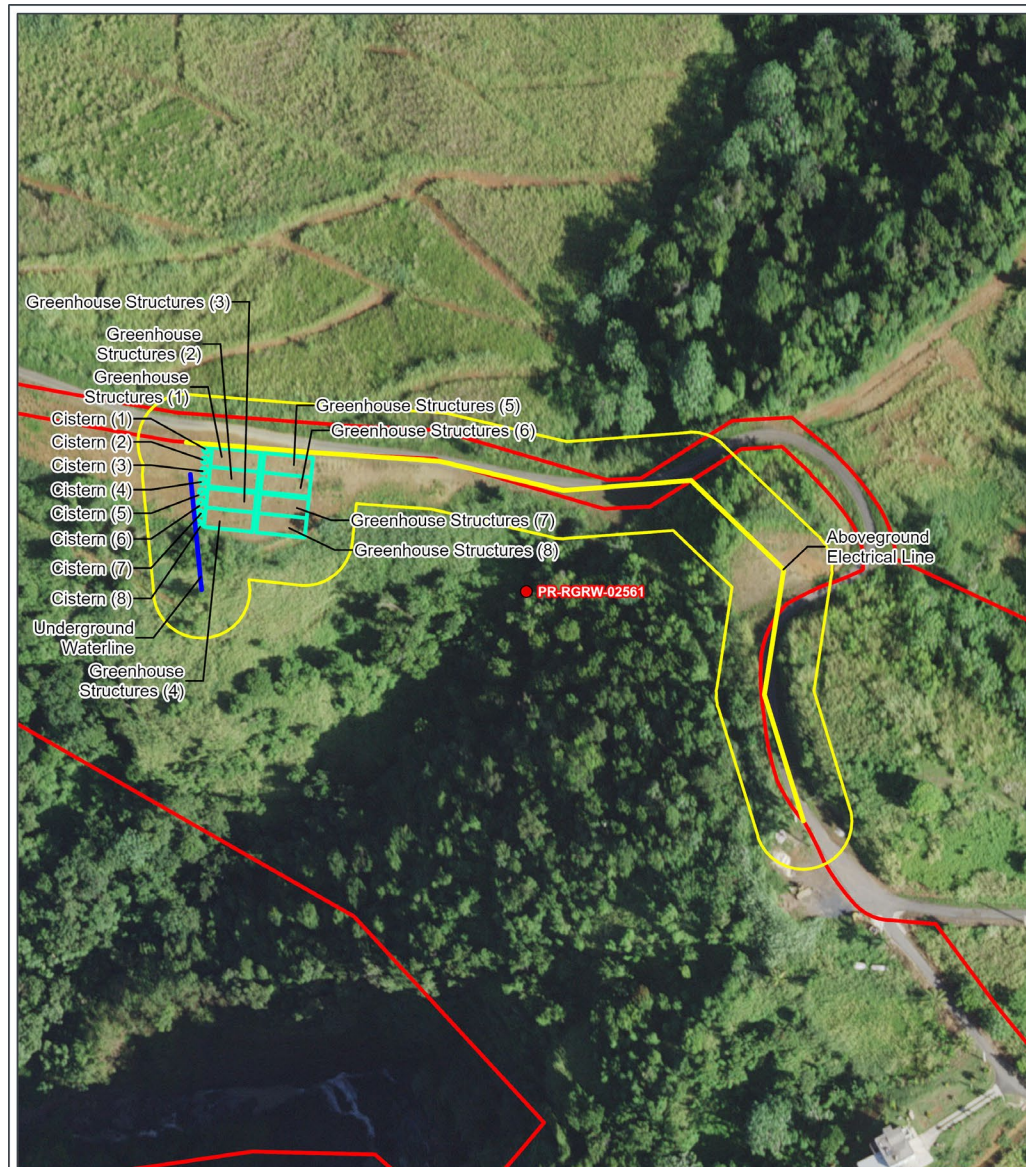
The Puerto Rico Department of Housing requests that the Puerto Rico SHPO concur that the following determination is appropriate for the undertaking (Choose One):

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

This Section is to be Completed by SHPO Staff Only

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

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



REGROW PROGRAM

**Project Location
Area of Potential
Effects (APE) Map**

Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

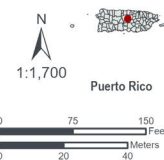
- Site
- Site Parcel
- Project Footprint (Option)
- Underground Waterline
- Above Ground Utilities Location
- APE (Buffer (15-meters))

Morovis, Puerto Rico 00687

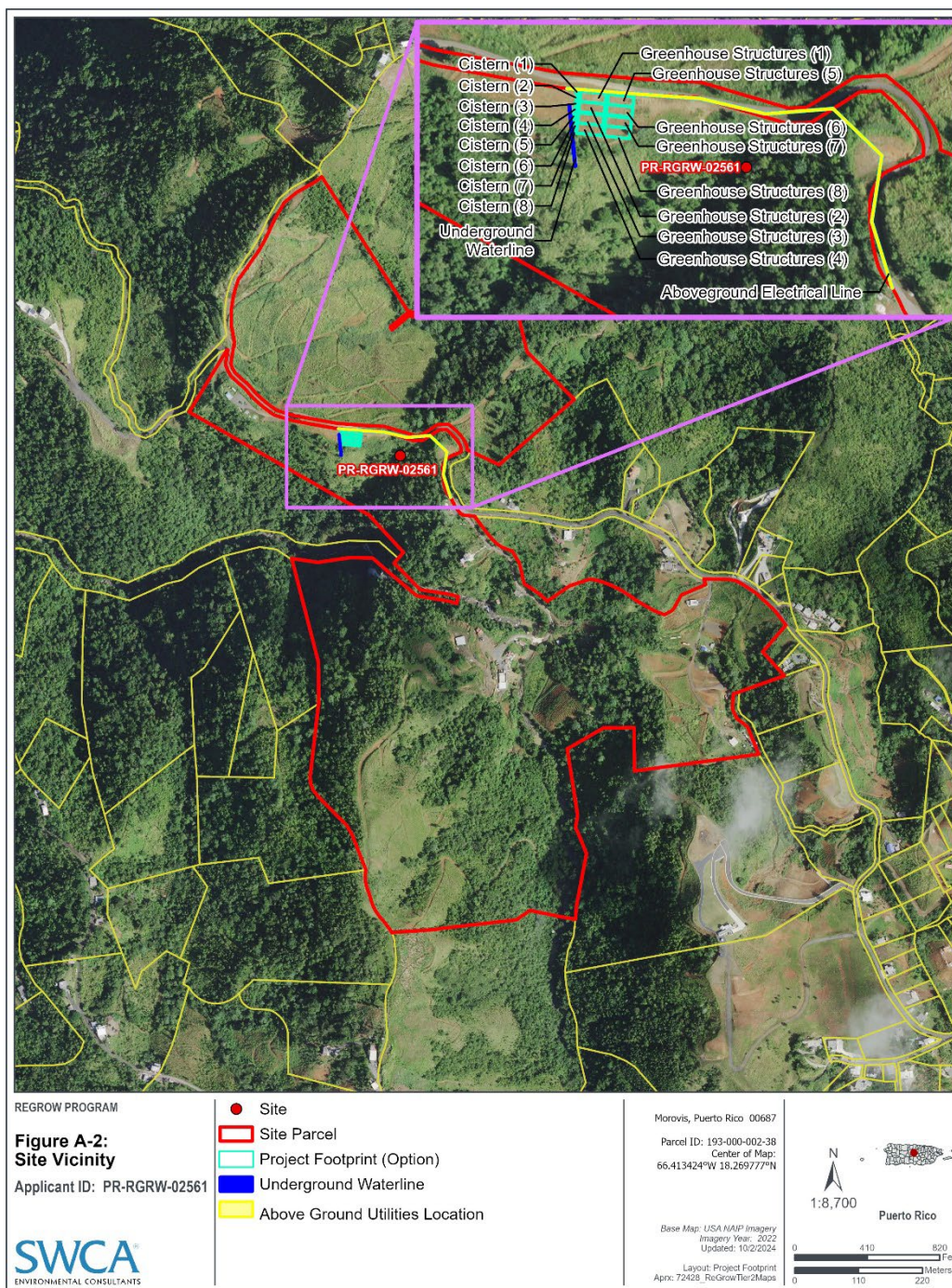
Parcel ID: 193-000-002-38
Center of Map:
66.414847°W 18.271315°N

Base Map: USA NAIP Imagery
Imagery Year: 2022

Updated: 10/2/2024
Layout: APE
Aprx: 72428_ReGrowTier2Maps



Project (Parcel) Location - Aerial Map

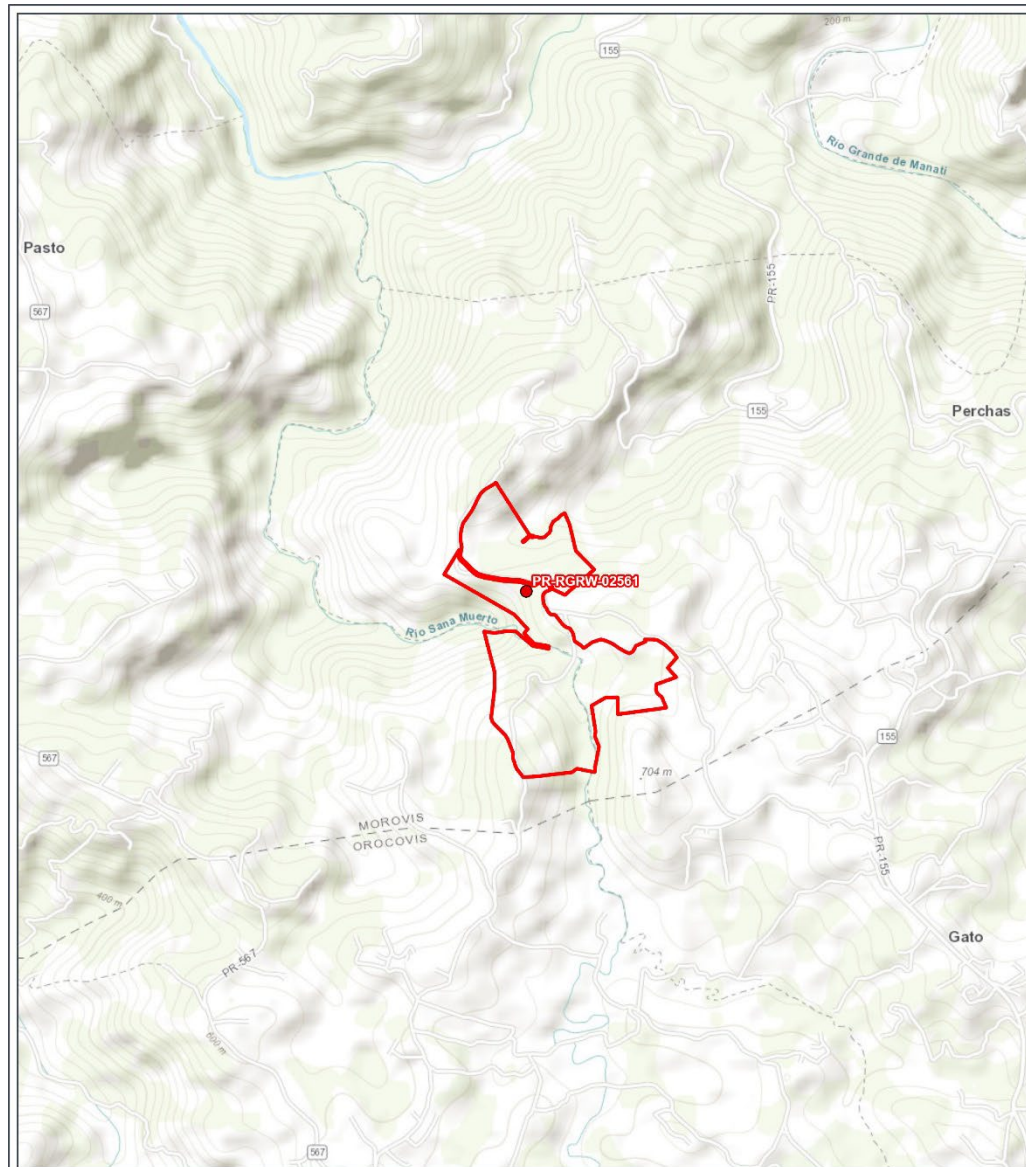


Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Project (Parcel) Location - USGS Topographic Map



REGROW PROGRAM

**Figure A-1:
Site Location**

Applicant ID: PR-RGRW-02561

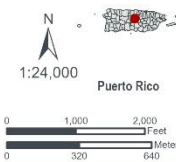
SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel

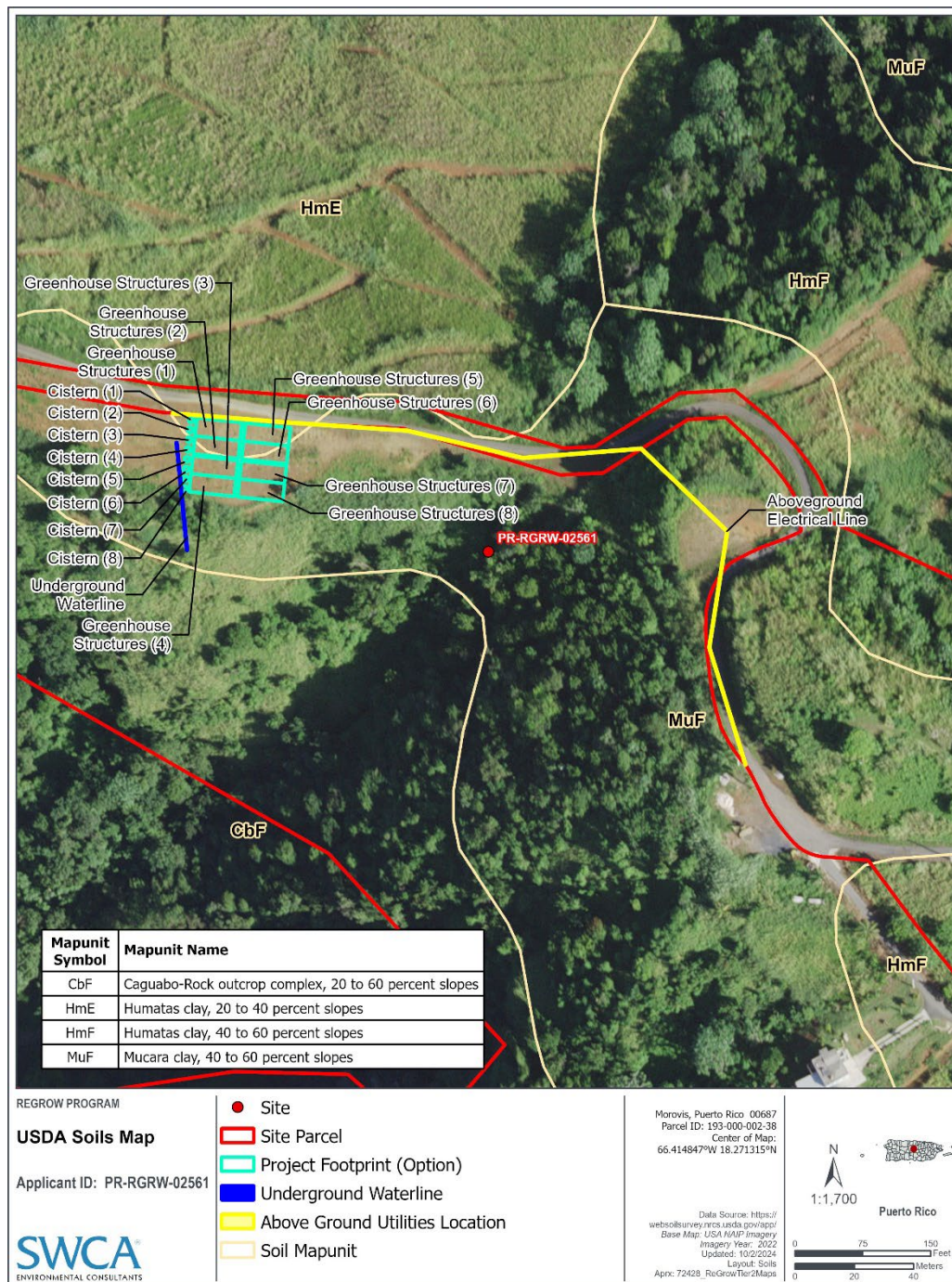
Morovis, Puerto Rico 00687

Parcel ID: 193-000-002-38
Center of Map:
66.414847°W 18.271315°N

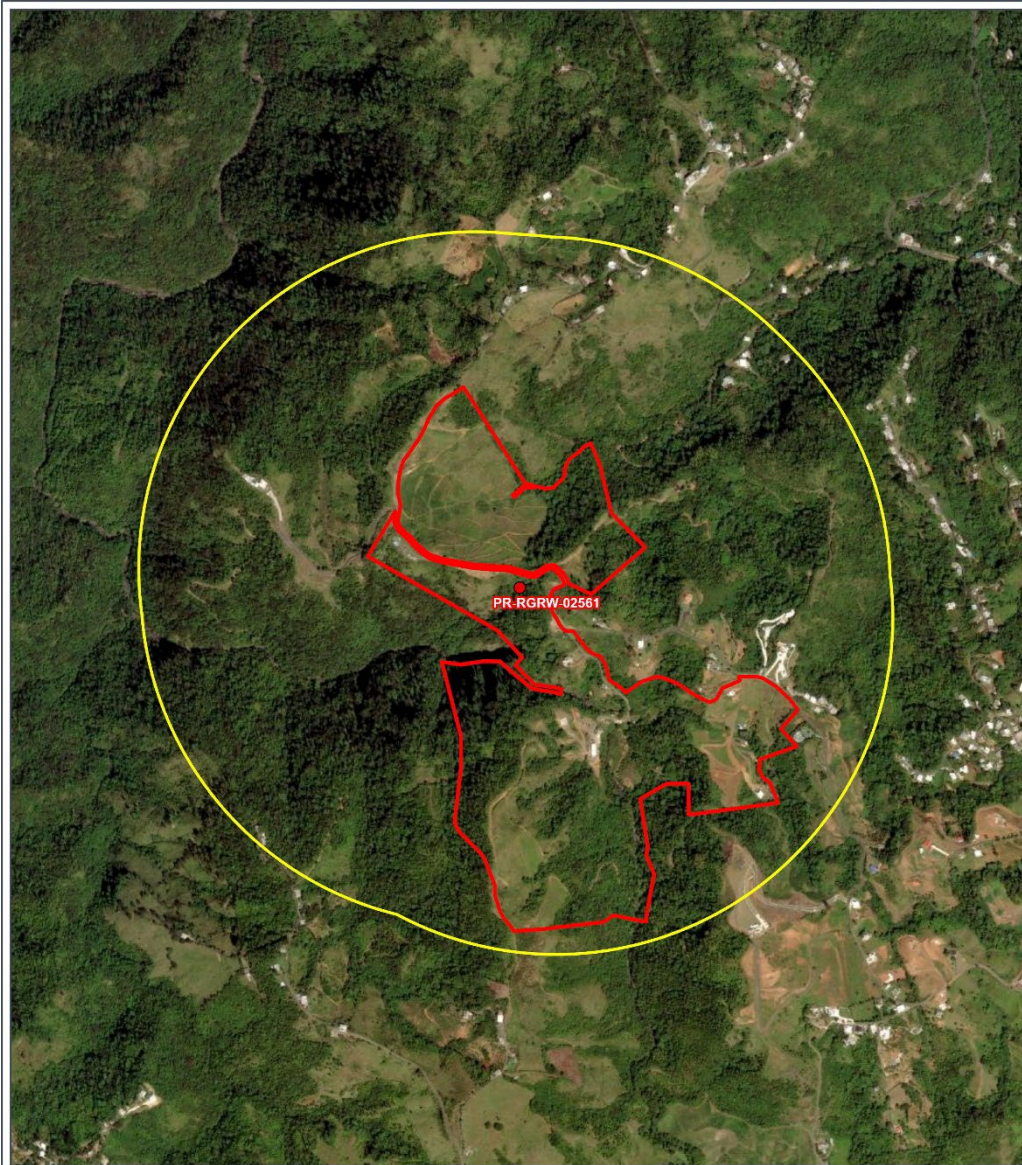
Base Map: ESRI ArcGIS Online,
accessed June 2024
Updated: 6/19/2024
Layout: Site Location
Aprx: 72428_ReGrowTier2Maps



Project (Parcel) Location – Soils Map



Project (Parcel) Location with Previous Investigations - Aerial Map



REGROW PROGRAM

Previous Investigation Map

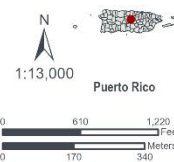
Applicant ID: PR-RGRW-02561



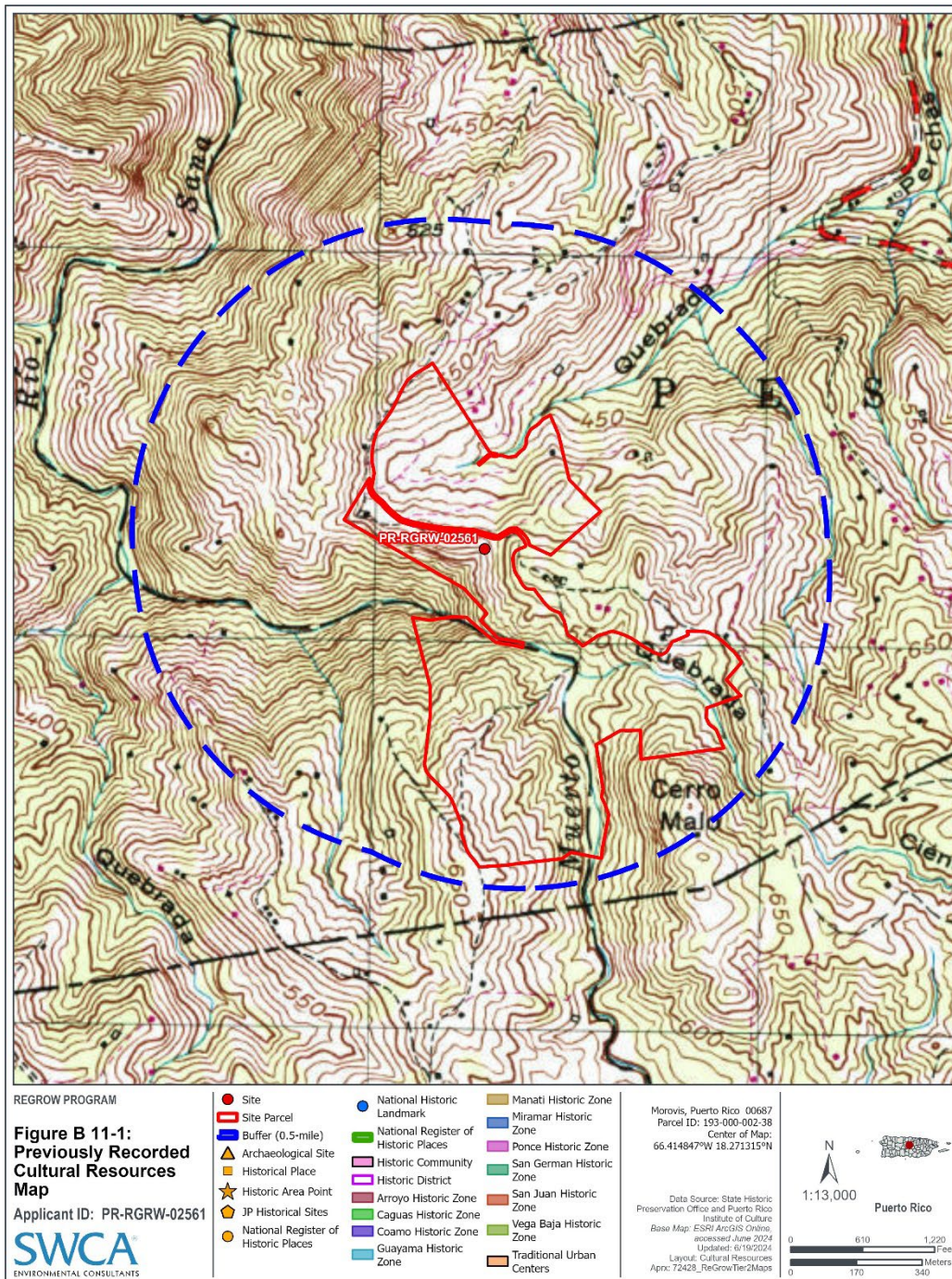
- Site
- Site Parcel
- Project Footprint (Option)
- Buffer (0.5-mile)
- Previously Recorded Survey
- MIPR Arqueología
- Traditional Urban Centers

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
Center of Map:
66.414847°W 18.271315°N

Data Source: State Historic
Preservation Office and Puerto Rico
Institute of Culture
Base Map: ESRI ArcGIS Online,
accessed June 2024
Updated: 6/19/2024
Layout: Previous Investigation
Aprx: 72428_ReGrowTier2Maps



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

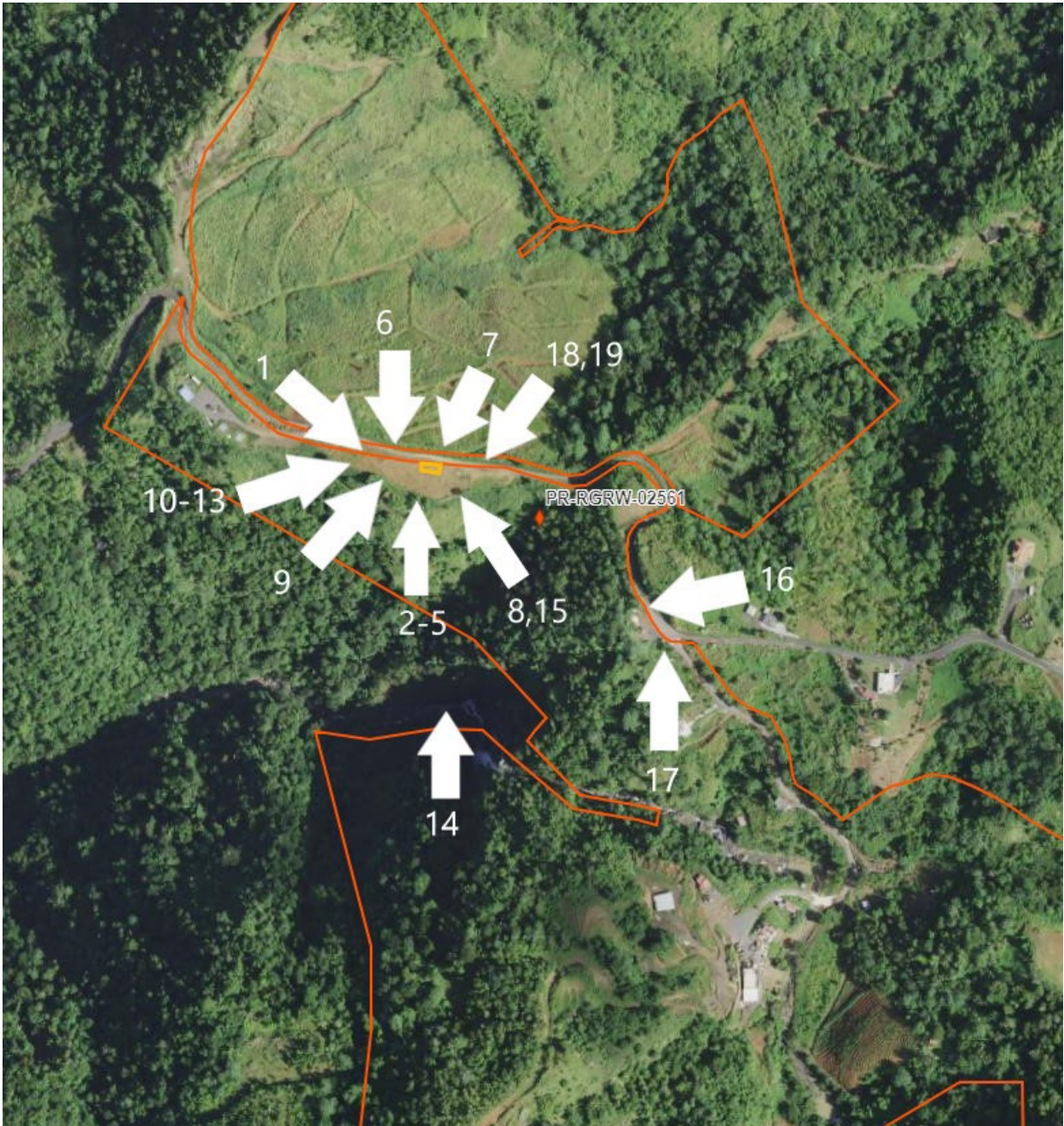


Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photograph Key



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.



Photo #: 01	Date: 09/21/2023	
Photo Direction: East		
Description: <p>Overview of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.</p>		

Photo #: 02	Date: 09/21/2023	
Photo Direction: North		
Description: <p>Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.</p>		

Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

03

Date:

09/21/2023

Photo Direction:

East

Description:

Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation, the landform, and the vehicles on the main access road.



Photo #:

04

Date:

09/21/2023

Photo Direction:

South

Description:

Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the property.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

05

Date:

09/21/2023

Photo Direction:

West

Description:

Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.



Photo #:

06

Date:

09/21/2023

Photo Direction:

Southeast

Description:

Overview from the northwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

07

Date:

09/21/2023

Photo Direction:

Southwest

Description:

Overview from the northeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.



Photo #:

08

Date:

09/21/2023

Photo Direction:

Northwest

Description:

Overview from the southeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

09

Date:

09/21/2023

Photo Direction:

Northeast

Description:

Overview from the southwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.



Photo #:

10

Date:

09/21/2023

Photo Direction:

North

Description:

Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

11

Date:

09/21/2023

Photo Direction:

East

Description:

Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform towards the main access road.



Photo #:

12

Date:

09/21/2023

Photo Direction:

South

Description:

Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

13

Date:

09/21/2023

Photo Direction:

West

Description:

Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.



Photo #:

14

Date:

09/21/2023

Photo Direction:

South

Description:

This picture overviews the location for Río Sana Muerto south of the site location.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

15

Date:

09/21/2023

Photo Direction:

South

Description:

This picture overlooks a dirt-pushed pile on the southeast corner due to applicants cleaning and superficial scraping the area.



Photo #:

16

Date:

09/21/2023

Photo Direction:

North

Description:

At the property's entrance, an electrical meter was installed, and applicants expect the electricity to be connected from that source to the project location. To better access, LUMA might be using the main access road, and all costs will be funded by the landowner.



Applicant: Más Fresco Que Fresco LLC

Case ID: **PR-RGRW-02561**

City: Morovis, P.R.

Photo #:

17

Date:

09/21/2023

Photo Direction:

Close-up, Southwest

Description:

Underground water meter box with multiple meters for different structures. The applicants mentioned the landowner has a potable water pipeline in the property. The applicants have an agreement that the landlord is going to fund the connections and installations.



Photo #:

18

Date:

09/21/2023

Photo Direction:

East

Description:

This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).




PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM ReGROW PUERTO RICO PROGRAM Section 106 NHPA Effect Determination		 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Applicant: Más Fresco Que Fresco LLC		
Case ID: PR-RGRW-02561		City: Morovis, P.R.

Photo #: 01	Date: 09/21/2023
Photo Direction: West	
Description: This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).	



Attachment 12

**Sole Source Aquifer Worksheet and
Map**



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Sole Source Aquifers (CEST and EA) - PARTNER

<https://www.hudexchange.info/environmental-review/sole-source-aquifers>

1. Is the project located on a sole source aquifer (SSA)¹?

☒ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination, such as a map of your project or jurisdiction in relation to the nearest SSA.*

☐ Yes → *Continue to Question 2.*

2. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

☐ Yes → *The review is in compliance with this section. Continue to the Worksheet Summary below.*

☐ No → *Continue to Question 3.*

3. Does your region have a memorandum of understanding (MOU) or other working agreement with EPA for HUD projects impacting a sole source aquifer?

Contact your Field or Regional Environmental Officer or visit the HUD webpage at the link above to determine if an MOU or agreement exists in your area.

☐ Yes → *Continue to Question 4.*

☐ No → *Continue to Question 5.*

4. Does your MOU or working agreement exclude your project from further review?

☐ Yes → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination and document where your project fits within the MOU or agreement.*

☐ No → *Continue to Question 5.*

5. Will the proposed project contaminate the aquifer and create a significant hazard to public health?

Consult with your Regional EPA Office. Your consultation request should include detailed information about your proposed project and its relationship to the aquifer and associated streamflow source area.

¹ A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

EPA will also want to know about water, storm water and waste water at the proposed project. Follow your MOU or working agreement or contact your Regional EPA office for specific information you may need to provide. EPA may request additional information if impacts to the aquifer are questionable after this information is submitted for review.

- ☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide your correspondence with the EPA and all documents used to make your determination.*
- ☐ Yes → *The RE/HUD will work with EPA to develop mitigation measures. If mitigation measures are approved, attach correspondence with EPA and include the mitigation measures in your environmental review documents and project contracts. If EPA determines that the project continues to pose a significant risk to the aquifer, federal financial assistance must be denied. Continue to Question 6.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

According to the USEPA's Source Water Protection, Sole Source Aquifer Protection Program, there are no sole source aquifers in Puerto Rico. No further evaluation is required. The project is in compliance with the Safe Drinking Water Act.



REGROW PROGRAM

Figure 12-1: Sole Source Aquifers Map

Applicant ID: PR-RGRW-02561

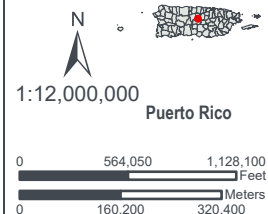
SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Sole Source Aquifers

***There are no Sole Source Aquifers in Puerto Rico.**

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/SoleSourceAquifers/FeatureServer>
Base Map: ESRI/ArcGIS Online, accessed May 2024
Updated: 5/17/2024
Layout: Sole Source Aquifers
Aprx: 72428_ReGrowTier2Maps



Attachment 13

**Wetlands Protection Partner Worksheet
and Map**



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Wetlands (CEST and EA) – Partner

<https://www.hudexchange.info/environmental-review/wetlands-protection>

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building’s footprint, or ground disturbance?

The term "new construction" includes draining, dredging, channelizing, filling, diking, impounding, and related activities and construction of any any structures or facilities.

☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

☐ Yes → *Continue to Question 2.*

2. Will the new construction or other ground disturbance impact a wetland as defined in E.O. 11990?

☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map or any other relevant documentation to explain your determination.*

☐ Yes → *Work with HUD or the RE to assist with the 8-Step Process.* *Continue to Question 3.*

3. Does Section 55.12 state that the 8-Step Process is not required?

☐ No, the 8-Step Process applies.

This project will require mitigation and may require elevating structure or structures. See the link to the HUD Exchange above for information on HUD’s elevation requirements.

→ *Work with the RE/HUD to assist with the 8-Step Process. Continue to Worksheet Summary.*

☐ 5-Step Process is applicable per 55.12(a).

Provide the applicable citation at 24 CFR 55.12(a) here.

[Click here to enter text.](#)

→ *Work with the RE/HUD to assist with the 5-Step Process. This project may require mitigation or alternations. Continue to Worksheet Summary.*

☐ 8-Step Process is inapplicable per 55.12(b).

Provide the applicable citation at 24 CFR 55.12(b) here.

[Click here to enter text.](#)

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to Worksheet Summary.

☐ 8-Step Process is inapplicable per 55.12(c).

Provide the applicable citation at 24 CFR 55.12(c) here.

[Click here to enter text.](#)

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to Worksheet Summary.

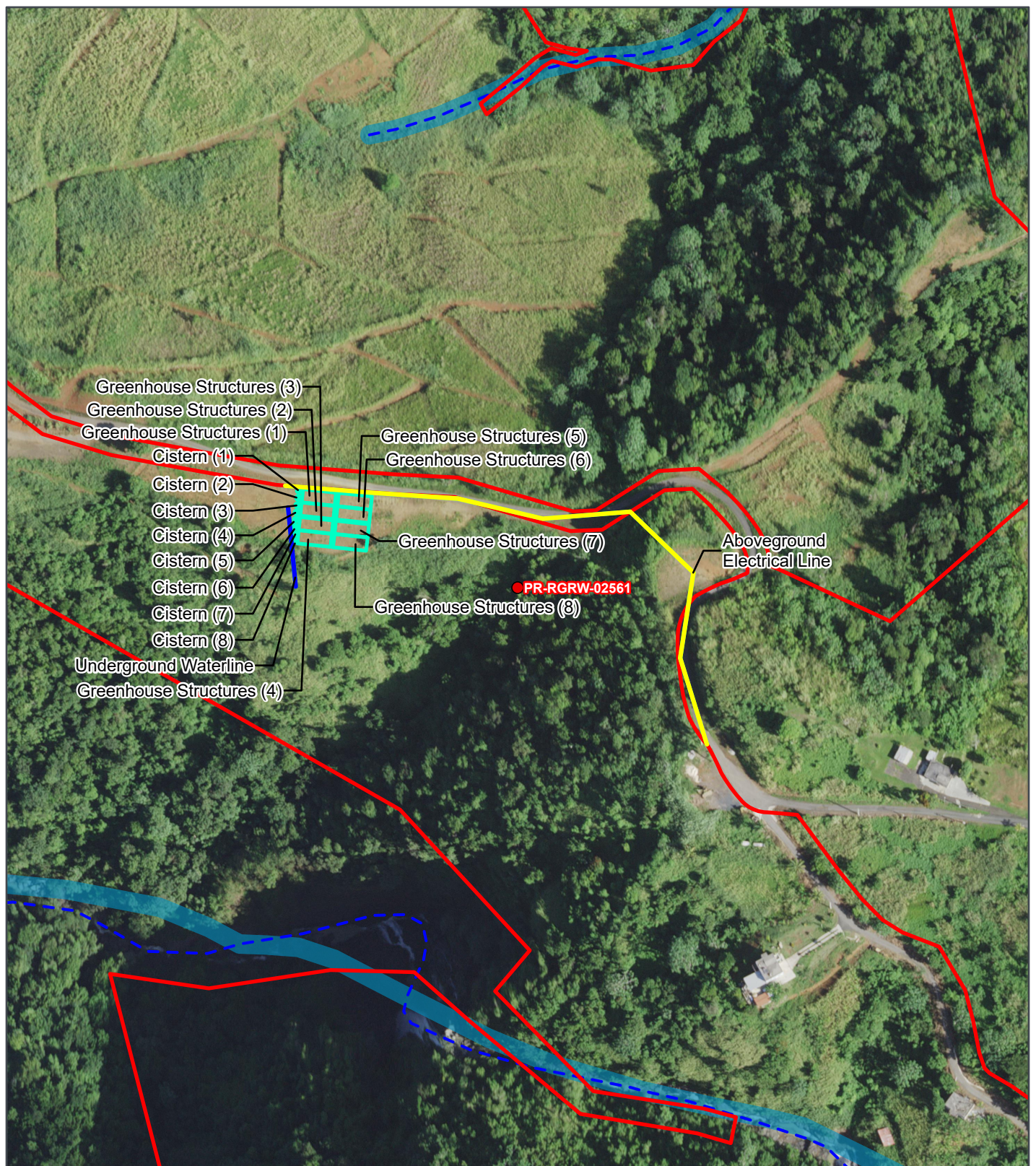
Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project site was reviewed for wetlands using the U.S. Fish and Wildlife Service (USFWS) Wetland Inventory Mapper and a visual confirmation during the field site inspection. No wetlands were determined to be present on site. No further evaluation is required. The project is in compliance with Executive Order 11990.



REGROW PROGRAM

Figure B 13-1: Wetlands Protection Map

Applicant ID: PR-RGRW-02561

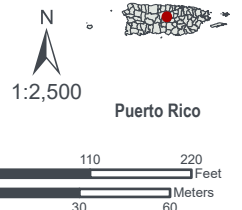
SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- Site Parcel
- Project Footprint (Option)
- Underground Waterline
- Above Ground Utilities Location
- NHD Stream
- Estuarine and Marine Deepwater

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

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: <https://apps.nationalmap.gov/downloader/#/>
<https://www.fws.gov/program/national-wetlands-inventory/data-download>
Base Map: USA NAIP Imagery
Imagery Year: 2022
Updated: 10/2/2024
Layout: Wetlands Protection



Attachment 14

Wild and Scenic Rivers Partner Worksheet and Wild and Scenic Rivers Map

Wild and Scenic Rivers (CEST and EA) – PARTNER

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

General requirements	Legislation	Regulation
The Wild and Scenic Rivers Act provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS) from the effects of construction or development.	The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c))	36 CFR Part 297
References		
https://www.hudexchange.info/environmental-review/wild-and-scenic-rivers		

1. Is your project within proximity of a NWSRS river as defined below?

Wild & Scenic Rivers: These rivers or river segments have been designated by Congress or by states (with the concurrence of the Secretary of the Interior) as wild, scenic, or recreational

Study Rivers: These rivers or river segments are being studied as a potential component of the Wild & Scenic River system.

Nationwide Rivers Inventory (NRI): The National Park Service has compiled and maintains the NRI, a register of river segments that potentially qualify as national wild, scenic, or recreational river areas

☐ No

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide documentation used to make your determination, such as a map identifying the project site and its surrounding area or a list of rivers in your region in the Screen Summary at the conclusion of this screen.*

☐ Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.

→ *Continue to Question 2.*

2. Could the project do *any* of the following?

- Have a direct and adverse effect within Wild and Scenic River Boundaries,
- Invade the area or unreasonably diminish the river outside Wild and Scenic River Boundaries, or
- Have an adverse effect on the natural, cultural, and/or recreational values of a NRI segment.

Consultation with the appropriate federal/state/local/tribal Managing Agency(s) is required, pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect on a Wild & Scenic River or a Study River and, if so, to determine the appropriate avoidance or mitigation measures.

Note: Concurrence may be assumed if the Managing Agency does not respond within 30 days; however, you are still obligated to avoid or mitigate adverse effects on the rivers identified in the NWSRS

- ☐ No, the Managing Agency has concurred that the proposed project will not alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.*

- ☐ Yes, the Managing Agency was consulted and the proposed project may alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.

→ *The RE/HUD must work with the Managing Agency to identify mitigation measures to mitigate the impact or effect of the project on the river.*

Worksheet Summary

Compliance Determination

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

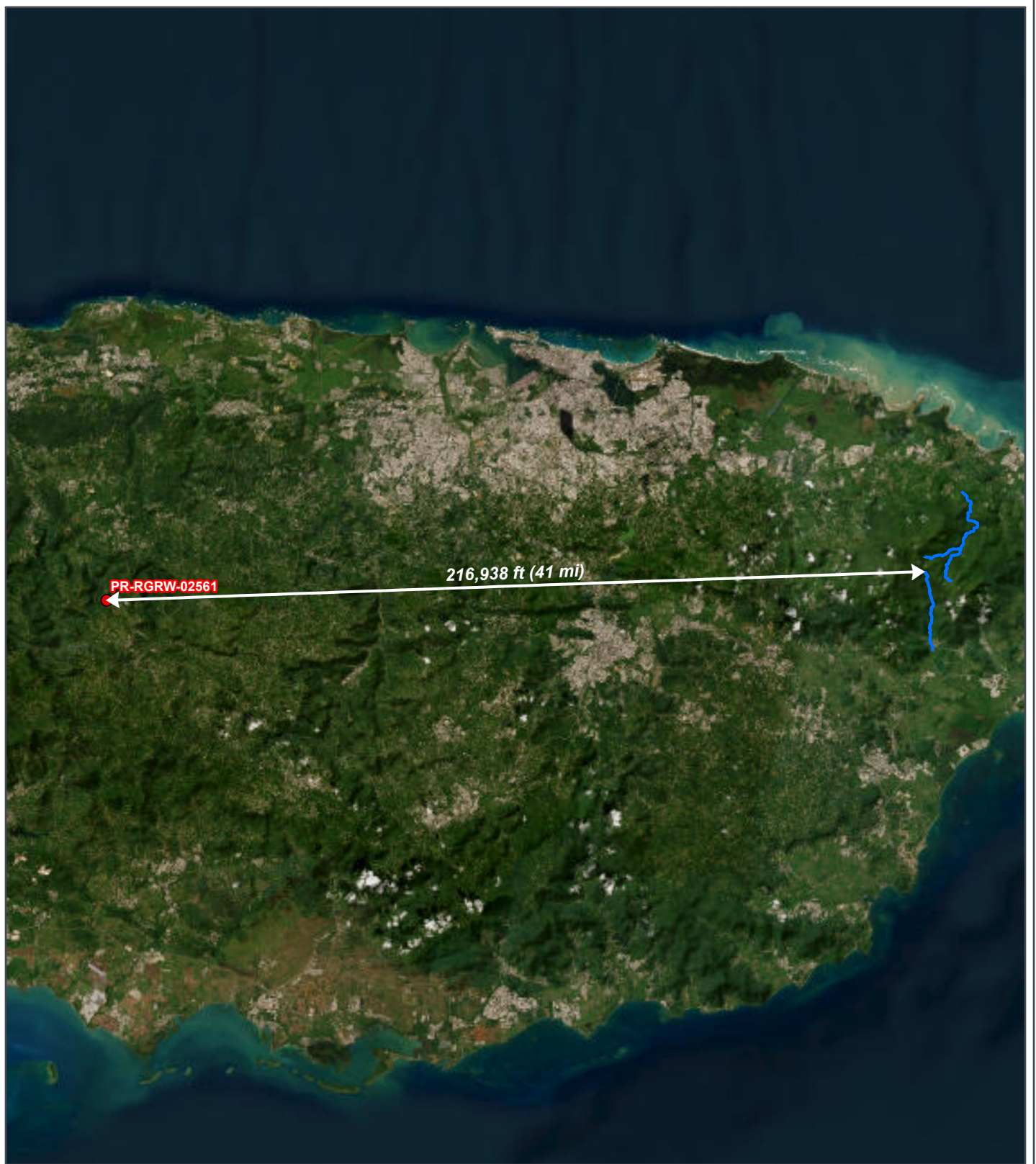
- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

A review of the USFWS National Wild and Scenic River mapper identified no Wild and Scenic Rivers or National Rivers Inventory (NRI) rivers present in Morovis Municipio. The closest Wild and Scenic River segment is located 216,938 ft (41 miles) east of the project site. No further evaluation is required. The project is in compliance with the Wild and Scenic Rivers Act.

Are formal compliance steps or mitigation required?

☐ Yes

☒ No



REGROW PROGRAM

Figure B 14-1: National Wild and Scenic River Map

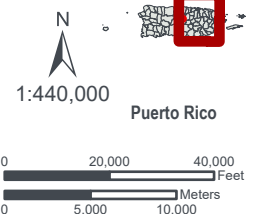
Applicant ID: PR-RGRW-02561

SWCA
ENVIRONMENTAL CONSULTANTS

- Site
- National Wild and Scenic River

Morovis, Puerto Rico 00687
Parcel ID: 193-000-002-38
66.414847°W 18.271315°N

Data Source: https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_WildScenicRiverSegments_01/mapserver
Base Map: ESRI ArcGIS Online, accessed May 2024
Updated: 5/17/2024



Attachment 15
Environmental Justice Partner Worksheet
and EJScreen Report



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Environmental Justice (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/environmental-justice>

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. Were any adverse environmental impacts identified in any other compliance review portion of this project’s total environmental review?

☐ Yes → *Continue to Question 2.*

☒ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?

☐ Yes

Explain:

[Click here to enter text.](#)

→ *The RE/HUD must work with the affected low-income or minority community to decide what mitigation actions, if any, will be taken. Provide any supporting documentation.*

☐ No

Explain:

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The ReGrow Program intends to alleviate negative economic impacts to, and strengthen, the agricultural industry in Puerto Rico. The project's direct and indirect impacts are limited to a small area on a single land parcel. The project will benefit the farm owner by improving agricultural use and production. The project would not facilitate development that would negatively affect human health or result in disproportionate adverse environmental impacts to low-income or minority populations. The project is in compliance with Executive Order 12898.



EJScreen Community Report

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

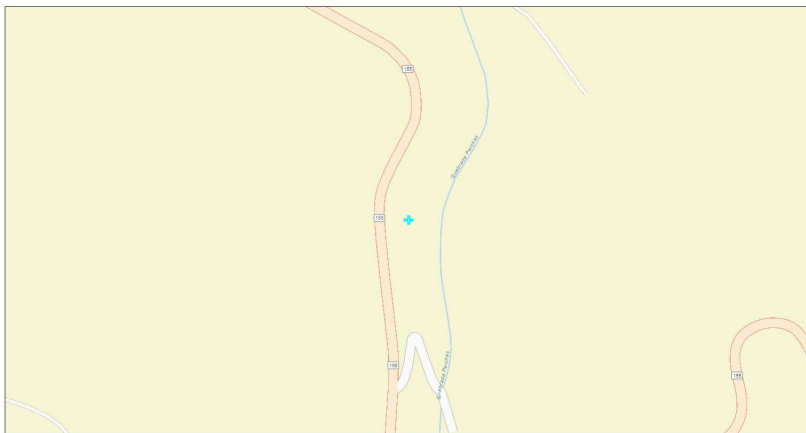
Morovis Municipio, PR

1 mile Ring Centered at 18.284855,-66.404414

Population: 861

Area in square miles: 3.14

A3 Landscape

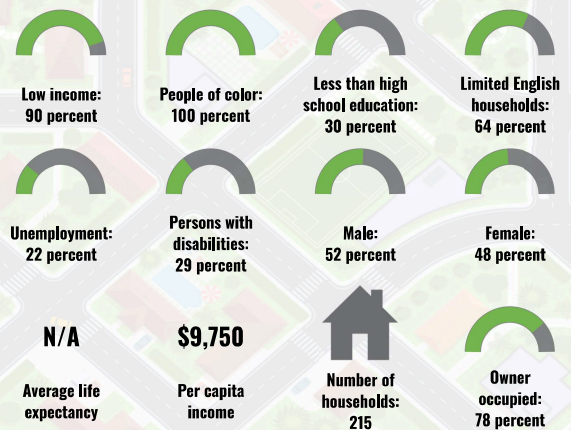


June 24, 2024
PR-RGRW-02561

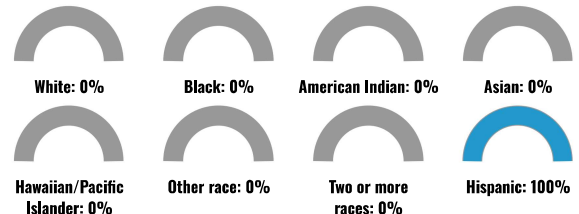
1:2,257
0 0.03 0.06 0.09 0.12 0.15 0.17 mi
0 0.04 0.08 0.12 0.16 km

EPA Community Maps Contributors: EPA, SanDisk, Garmin, Photogram, OpenStreetMap, Mapbox, METRAGIS, USGS, NPS, US Census Bureau, USFWS

COMMUNITY INFORMATION



BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
No language data available.	

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

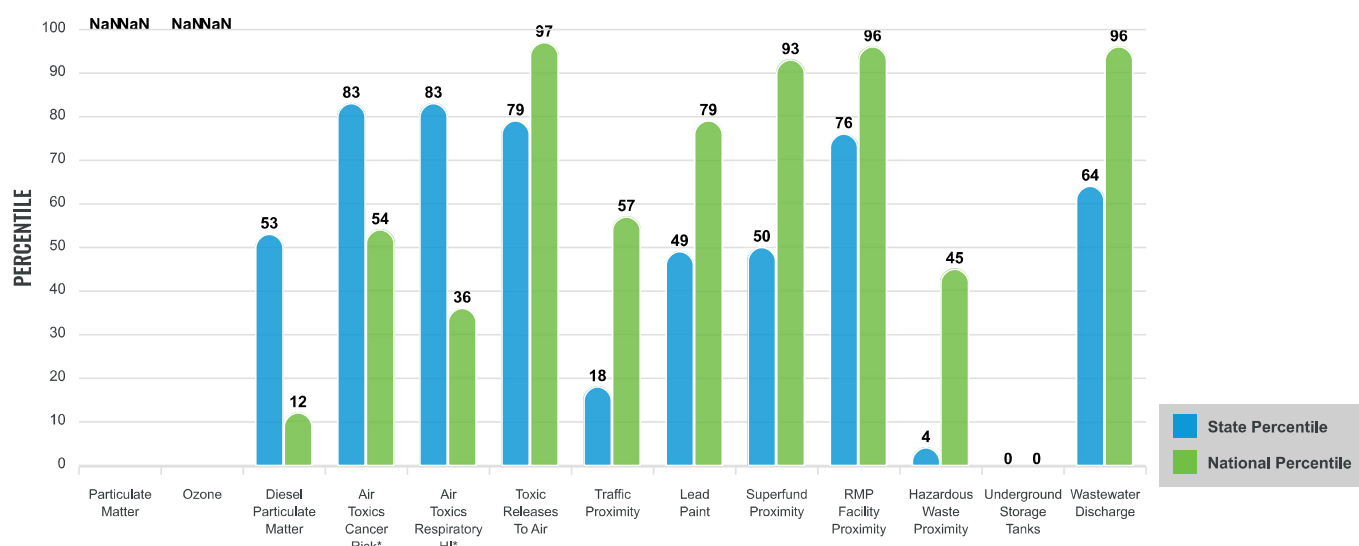
Environmental Justice & Supplemental Indexes

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

EJ INDEXES

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

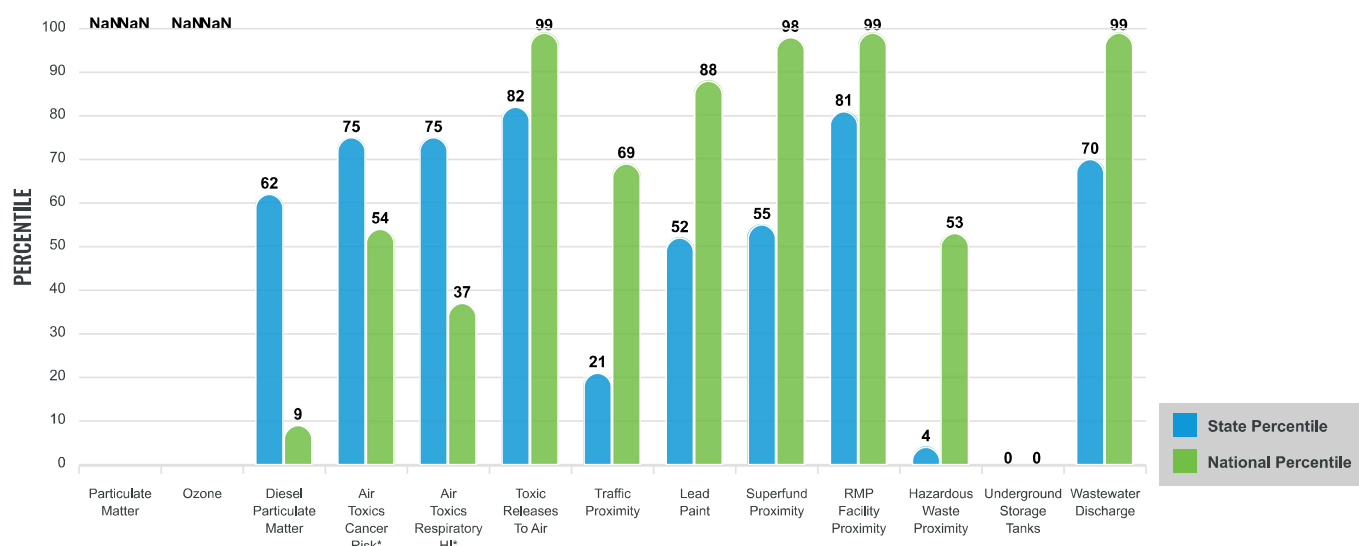
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

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

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



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

Report for 1 mile Ring Centered at 18.284855,-66.404414

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 ($\mu\text{g}/\text{m}^3$)	0.035	0.0667	46	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	1,500	4,300	71	4,600	67
Traffic Proximity (daily traffic count/distance to road)	12	180	15	210	18
Lead Paint (% Pre-1960 Housing)	0.077	0.16	44	0.3	31
Superfund Proximity (site count/km distance)	0.075	0.15	46	0.13	57
RMP Facility Proximity (facility count/km distance)	0.33	0.47	66	0.43	69
Hazardous Waste Proximity (facility count/km distance)	0.059	0.76	3	1.9	11
Underground Storage Tanks (count/km ²)	0	1.7	0	3.9	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0074	2.3	56	22	65
SOCIOECONOMIC INDICATORS					
Demographic Index	95%	83%	82	35%	99
Supplemental Demographic Index	52%	43%	72	14%	99
People of Color	100%	96%	31	39%	98
Low Income	90%	70%	82	31%	99
Unemployment Rate	22%	15%	74	6%	96
Limited English Speaking Households	65%	67%	37	5%	99
Less Than High School Education	30%	21%	75	12%	92
Under Age 5	5%	4%	71	6%	51
Over Age 64	16%	22%	26	17%	52
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	0
Air Pollution	0
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	0
Hospitals	0
Places of Worship	0

Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

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

Report for 1 mile Ring Centered at 18.284855,-66.404414

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	25%	21.6%	68	13.4%	95

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	17%	32%	22	14%	68
Lack of Health Insurance	6%	7%	41	9%	41
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 Centered at 18.284855,-66.404414

Appendix C

Environmental Site Inspection Report



ENVIRONMENTAL FIELD ASSESSMENT FORM
ReGrow

Applicant Name: Más Fresco Que Fresco LLC	Program ID: PR-RGRW-02561
Project Coordinates: 18.265047, -66.408008	Parcel ID: 193-000-003-74-000
Parcel Address: Bo. Perchas Carr 155 Km 1.5	Municipio: Morovis, PR
Zip Code: 00687	

Inspector Name: Delise Torres-Ortiz	Inspection Date: September 21 st , 2023
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General Site Conditions

Was property accessible by vehicle?	Yes	Comment:
Access issues?	Yes	Comment: Locked gate.
Are water wells present?	No	Comment:
Are creeks or ponds present?	Yes	Comment: Rio Sana Muerto
Are any potential wetlands on-site or visible on adjacent parcel?	No	Comment:

Parcel Conditions

Note – for Any Yes answers specify type, contents and location

Do any of the proposed project work areas show evidence of site preparation?	Yes	Comment: The area looks clean, and it has a dirt pushed pile of the cleaning at the southeast corner.
Are commercial or industrial hazardous facilities at parcel or within visual sight?	No	Comment:
Are there signs of underground storage tanks?	No	Comment:
Are above-ground tanks >10 gallons present? If Yes, also state condition.	No	Comment:
Are 55-gallon drums present? If Yes, also state condition.	No	Comment:



ENVIRONMENTAL FIELD ASSESSMENT FORM

ReGrow

Are abandoned vehicles or electrical equipment present?	No	Comment:
Is other potential environmentally hazardous debris on the parcel?	No	Comment:
Is there non-environmentally hazardous debris on the parcel?	No	Comment:
Are any leaks, soil stains, or stressed vegetation present associated with any of the above or separately?	No	Comment:
Are there any pungent, foul or noxious odors?	No	Comment:
Are there any potentially hazardous trees that could fall?	No	Comment:
Are any bird nests visible?	No	Comment:
Are there any animal burrows visible?	No	Comment:
Are there any buildings in direct visual sight of the project locations?	No	Comment:

Additional Needs Analysis

Based on the above findings, does additional information need to be obtained from the applicant to determine whether an environmental hazard is present?	No	Comment:
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X I verify that I have physically visited this property and that the findings outlined above are accurate.

Delise Torres Ortiz
{Delise Torres Ortiz}
{September 21st, 2023}



ENVIRONMENTAL FIELD ASSESSMENT FORM

ReGrow

Following pages are used for:

Location Map with parcel boundaries and building point (Aerial base with streets labelled)

Photos taken during inspection, with Date / Type / Direction associated with the photo

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Frame #	View	Description
01	E	Overview of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform.
02	N	Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform towards the main access road.
03	E	Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation, the landform, and the vehicles on the main access road.
04	S	Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform towards the property.
05	W	Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform.
06	SE	Overview from the northwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform towards the main access road.
07	SW	Overview from the northeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform.
08	NW	Overview from the southeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform.
09	NE	Overview from the southwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area’s vegetation and the landform towards the main access road.
10	N	Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area’s vegetation and the landform.
11	E	Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

		above-ground pipes and the picture shows the area's vegetation and the landform towards the main access road.
12	S	Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.
13	W	Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.
14	S	This picture overviews the location for Río Sana Muerto south of the site location.
15	S	This picture overlooks a dirt-pushed pile on the southeast corner due to applicants cleaning and superficial scraping the area.
16	N	At the property's entrance, an electrical meter was installed, and applicants expect the electricity to be connected from that source to the project location. To better access, LUMA might be using the main access road, and all costs will be funded by the landowner.
17	CLOSE-UP, SW	Close to the property's entrance, the underground water meter box is found with multiple meters for different structures. The applicants mentioned the landowner has a potable water pipeline in the property, but that they are not sure where it is found. The applicants do have an agreement with the landowner that he is the one who is going to fund the connections and installations.
18	E	This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).
19	W	This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo #: 01	Date: 09/21/ 2023
Photo Direction: East	
Description: Overview of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.	





Photo #: 02	Date: 09/21/ 2023	
Photo Direction: North		
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo #: 03	Date: 09/21/2023
Photo Direction: East	
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation, the landform, and the vehicles on the main access road.	



A landscape photograph showing a dirt road in the foreground with small green plants. In the background, there is a hill covered in dense green vegetation under a blue sky with white clouds. A white car is parked on the road, and a person is visible near the hill.

Photo #: 04	Date: 09/21/ 2023	
Photo Direction: South		
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the property.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo #: 05	Date: 09/21/ 2023
Photo Direction: West	
Description: Overview from the center of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.	





Photo #: 06	Date: 09/21/ 2023	
Photo Direction: Southeast		
Description: Overview from the northwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008



Photo #: 07	Date: 09/21/ 2023	
Photo Direction: Southwest		
Description: Overview from the northeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.		

Photo #: 08	Date: 09/21/ 2023	
Photo Direction: Northwest		
Description: Overview from the southeast corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform.		

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008



Photo #: 09	Date: 09/21/2023	
Photo Direction: Northeast		
Description: Overview from the southwest corner of the project location for eight (8) greenhouses – hydroponics 50x20x12ft with a ground cloth covered and eight (8) square cisterns with their base. The picture shows the area's vegetation and the landform towards the main access road.		

Photo #: 10	Date: 09/21/ 2023
Photo Direction: North	
Description: Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.	

A landscape photograph showing a dirt field in the foreground, a grassy hill in the middle ground, and a blue sky with white clouds in the background. The foreground is a flat, reddish-brown dirt area with some sparse green weeds. The middle ground features a rolling green hill covered in grass and some small trees. The background is a bright blue sky filled with large, fluffy white clouds.

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo	Date:
#:	09/21/
11	2023
Photo Direction:	
East	
Description:	
Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform towards the main access road.	



A landscape photograph showing a dirt road leading up a hill covered in dense green vegetation under a cloudy sky. A small white car is visible on the road. The foreground is a flat, reddish-brown dirt area with sparse green weeds. The middle ground shows a dirt road winding up a hillside. A white car is parked on the road. The hillside is covered in lush green vegetation, including trees and shrubs. The sky is filled with large, white, fluffy clouds.

Photo #: 12	Date: 09/21/ 2023
Photo Direction: South	
Description: Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.	

A landscape photograph showing a dirt road leading up a hill covered in dense green vegetation under a cloudy sky. A small white car is visible on the road. The foreground is a dry, reddish-brown dirt area with sparse green plants. The middle ground is filled with tall, green grasses and shrubs. In the background, a hill rises, covered in dense green trees and vegetation. The sky is blue with large, white, fluffy clouds.

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo #: 13	Date: 09/21/ 2023
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Photo Direction:
West

Description:
Overview from the center of the project location for the eight (8) square cisterns 5x5ft with their installed bases that will be connected to the greenhouses with above-ground pipes and the picture shows the area's vegetation and the landform.



Photo #: 14	Date: 09/21/ 2023
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Photo Direction:
South

Description:
This picture overviews the location for Río Sana Muerto south of the site location.



Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo #: 15	Date: 09/21/ 2023
Photo Direction: South	
Description: This picture overlooks a dirt-pushed pile on the southeast corner due to applicants cleaning and superficial scraping the area.	



Photo #: 16	Date: 09/21/ 2023
Photo Direction: North	
Description: At the property's entrance, an electrical meter was installed, and applicants expect the electricity to be connected from that source to the project location. To better access, LUMA might be using the main access road, and all costs will be funded by the landowner.	



Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008


Photo #: 17	Date: 09/21/ 2023	
Photo Direction: Close-Up, Southwest		
Description: Close to the property's entrance, the underground water meter box is found with multiple meters for different structures. The applicants mentioned the landowner has a potable water pipeline in the property, but that they are not sure where it is found. The applicants do have an agreement with the landowner that he is the one who is going to fund the connections and installations.		

Photo #: 18	Date: 09/21/ 2023
Photo Direction: East	
Description: This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).	



Project #: PR-RGRW-02561	Photographer: Delise Torres Ortiz
Location Address: Bo. Perchas Carr 155 Km 1.5, Morovis, PR 00687	Coordinates: 18.265047, -66.408008

Photo #: 19	Date: 09/21/ 2023
Photo Direction: West	
Description: This picture is an overview of the main access road of the property which can be used to install the electricity (aerial) and the water pipeline (underground), but it will be decided by LUMA and PRASA (respectively).	

A photograph showing a dirt road that curves through a field of tall, green grass. In the background, there are several trees and a blue sky filled with large, white, fluffy clouds. The road appears to be a main access road for the property.