AMBIENTA INC.
Environmental Consultants

November 21, 2023

Edwin E. Muñiz
Field Supervisor
U.S. Fish and Wildlife Service Caribbean Ecological Services Field Office
P.O. Box 491 Boquerón, P.R. 00622

INFORMAL CONSULTATION: SECTION 7-ENDANGERED SPECIES ACT
PROJECT: SALINAS SOLAR PV PHOTOVOLTAIC PROJECT
MUNICIPALITIES OF SALINAS AND GUAYAMA, PR

Esteem Mr. Muñiz:

Clean Flexible Energy, LLC, an affiliated entity of AES in Puerto Rico, is under contract with LUMA Energy, which has an agreement to work with the Puerto Rico Electric Power Authority (PREPA) in managing Puerto Rico's electric power system. Clean Flexible Energy, LLC proposes the construction of a 120 MWn solar photovoltaic system and a 100 MW-4Hr battery system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). CFE is currently working with PREPA on a potential expansion of the battery capacity of 150 MW in addition to what was signed in the ESSA. The negotiation should be concluded in 2023.

A Federal financing loan from the U.S. Department of Energy (DOE) Loan Program Office (LPO) is being considered to establish this privately own project which support the objectives of the "Puerto Rico Public Energy Policy Law" (Law No. 17 of April 11, 2019). **Attachment A** of this memorandum contains the LPO *non-federal designation letter*, delegating to Clean Flexible Energy, LLC the ESA-Section 7 consultation process.

The Project will be established within lots of land owned by Agriart, LLC, with a total approximate footprint area of 661 cuerdas, located highway PR-706, km 2.3, in the Aguirre and Jobos Wards, in the Municipalities of Salinas and Guayama, P.R. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), within a property located to the northwest of the Project, owned by CIRO GROUP with an approximate occupation area of 20 cuerdas to connect the proposed photovoltaic solar system to a new electric substation.

The construction of this project is in line with the objectives of Law No. 17 of April 11, 2019, since in addition to providing an alternative energy source, also contributes to improving the quality of the environment using renewable energy sources, reducing the burning of fossil fuels and greenhouse gas emissions, representing a better use of natural resources for benefit of the environment, public health, and the economy.

Since the Project will likely receive federal financial assistance, it will need to comply with US Code 16 U.S.C. 1536: *Interagency Assistance*, and Code of Federal Regulations 50 CFR Part 402: *Interagency Cooperation-Endangered Species Act of 1073, as amended*, for which this ESA-Section 7 informal consultation process is being initiated with the US Fish and Wildlife Service (USFWS).

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

For this Endangered Species ACT (ESA) Section 7 informal consultation process a Draft-Biological Assessment (BA) was prepared to evaluate and determine the Project effects over ESA Listed Species. **Attachment B** of this memorandum contains the Draft-BA report prepared for the Project, which includes supporting documentation such as the USFWS *Information for Planning and Consultation Online* (IPaC), Project specific Wetland Jurisdictional Determination and Delineation Studies, Flora and Fauna Studies and Natural Habitat Certifications from the Puerto Rico Department of Natural and Environmental Resources (DRNA).

Based on the desktop review of existing literature from the IPaC, and other federal and commonwealth consulted references, there are no USFWS or DRNA critical habitats designated at the proposed Project areas. The IPaC Report indicates the potential occurrence of the listed species Puerto Rican Boa (*Chilabothrus inornatus*) and the Yellow-shouldered Blackbird (*Agelaius xanthomus*) within the project vicinity. The presence of the Puerto Rican Boa was not confirmed during the execution of any of studies performed for the Project. In addition, the IPaC reports that there are no migratory birds of conservation concern expected to occur within the Action Area. Based on the National Wetland inventory maps, the IPaC reports the presence of wetlands. During the Project planning stages, wetland jurisdictional determination and delineation studies were performed in order to properly plan the Project design and to avoid impacts over streams and wetlands. The Project has been designed to avoid any impacts to aquatic resources.

During the flora and fauna assessment of the Project's interconnexion line, two (2) specimens of the endemic and federally and commonwealth endangered bird species, Yellow-shouldered Blackbird (*Agelaius xanthomus*), which were documented with a flock of the Puerto Rican Grackle (*Quiscalus niger*) building nest within abandoned structures that use to be part of the former agriculture operation located outside of the Action Area. In addition, during the evaluation of the interconnexion line, a specimen of the Yellow-shouldered Blackbird (*Agelaius xanthomus*) was observed flying over the portion of the line that crosses road PR-706, in the vicinity of km 2.3, outside the Project area. This species was not observed in any other location of the Action Area. The seldom sightings of the Yellow-shouldered Blackbird can be considered as aleatory and to occur sporadically. Based on the species' behavior and since its typical suitable habitat does not occur within the Action Area, limited sightings of the species can occur.

Based on historic aerial photograph interpretation, reference literature and field observations, the lands where the Project will be developed have been extensively impacted in the past for intensive agriculture. Vegetative communities of the Action Area are mostly dominated by the species: *Megathyrsus maximus* (Guinea grass), *Achyranthes aspera* (prickly chaff flower), *Sida acuta* (common wireweed) *Solanum torvum* (turkey berry) *Albizia procera* (white siris) *Prosopis juliflora* (mesquite), *Pithecellobium dulce* (Manila tamarind), *Guazuma ulmifolia*, and (West Indian elm), *Leucaena leucocephala* (white leadtree).

Based on the performed studies, habitat type and prepared Draft-BA, it is likely to seldomly and sporadically encounter Puerto Rican Boas and Puerto Rican Yellow-shouldered Blackbirds within Project areas. All these assumptions are based on the habitat observed and on the species' behaviors. Considering the potential occurrence of these species, a series of best management practices (BMPs) and conservation measures will be implemented for the project. These BMPs and conservation measures includes the implementation of a conservation protocol, included in the Draft BA (see **Attachment B**), BMPs associated to the implementation of the Project's *Stormwater Pollution Prevention Plan*, and complying with the non-discretionary *Reasonable and Prudent Measures*, the *Terms and Conditions*, *Monitoring and Reporting Requirements* and *Conservation Measures* included in the USFWS Programmatic Biological Opinion (PBO) issued in July 2023 for the Puerto Rican Boa. **Attachment C** of this memorandum contains a detailed description of the project and additional project-related information.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

Based on the above-mentioned assumptions, and on the proposed conservation measures, these are the anticipated effects of the Action over ESA Listed Species:

- **Puerto Rican Boa**: Based on the species behavior, Project location, and on the fact that structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession with almost no developed understory and immature canopy, and which also show limited evidence of suitable habitat (habitat structure and prey availability) for this species, it has been determined that the proposed action ***"may affect, but not likely to adversely affect"*** the species *Chilabothrus inornatus*. This effect is mostly related to seldom incidental encounters during the construction phase of the proposed action. Based on the species behavior, the proposed action may affect this species through injury or death caused by mechanized works, construction and boas hidden on engine vehicle compartment. Consequences include potential loss of individuals; however, those can be considered not likely to adversely affect this species' existence. Capture and relocation of boas is an effective nonlethal mechanism of removing individuals out of harm's way, however it is considered as an incidental take, given this fact, the relocation of any encountered specimens will be coordinated with the corresponding agencies and no boas are proposed to be relocated by project personnel.
- **Yellow-shouldered Blackbird (YSB):** Based on the species behavior and distribution range, Project location, on the fact that the structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession and which do not have the typical suitable habitat for this species, on the fact that this species flies and can have a very wide range mobility along natural areas, it has been determined that the proposed action will have ***"no effect"*** over the species *Agelaius xanthomus*. This effect is mostly related to seldom occurrence of the species during the construction and operation phases of the proposed action and with a higher probability during matting and nesting season.

In addition, one (1) specimen of the endemic non-federally listed species, but commonwealth endangered reptile species southern garden lizard (*Ctenonotus poncensis*), was documented within forested areas associates to the northern hills. This species was reported by previous environmental studies performed for the former agriculture operation (DOW-Mycogen Seeds) to occur within forested corridors and streams of the Project vicinity.

All the portions of lands classified by the DRNA under the natural habitat classification Category 4, *natural habitat of ecological value*, which includes delineated wetlands, streams and forested corridors will be avoided and were set apart of the Action Area. No impacts will occur within those lands.

We respectfully request your concurrence with the presented effect analysis based on the above narrative and supporting documentation. We will appreciate your comments and prompt response to this determination.

Sincerely,

Walter E. Soler-Figueroa
President

ATTACHMENTS

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

ATTACHMENT A: DOE- LOAN PROGRAM OFFICE NON-FEDERAL DESIGNATION LETTER

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

Department of Energy
Washington, DC 20585

September 25, 2023

Edwin Muniz
Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491
Boquerón, PR 00622

SUBJECT: Consultations Under Section 7 of the Endangered Species Act for Puerto Rico Projects Applying for Financing Under the U.S. Department of Energy's (DOE's) Clean Energy Financing Program under Title XVII of the Energy Policy Act

Dear Mr. Muniz:

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment in the United States and U.S. territories.

The Puerto Rico Electric Power Authority (PREPA) is currently executing a Procurement Plan to replace its fossil fuel generation assets with renewable energy and battery storage systems in stages and on a set schedule to meet the territory's renewable energy policy targets. The Procurement Plan consists of a series of consecutive Requests for Proposals (RFP) issued in tranches, where each tranche seeks to procure a specific capacity target. PREPA has executed several agreements for eligible technologies under Tranche 1 of the Procurement Plan. DOE has determined that that solar photo-voltaic (PV) and battery energy storage systems projects previously contracted under Tranche 1 will be replacing "energy infrastructure" (as defined in Section 1706 of Title XVII) that has ceased operations in Puerto Rico, and therefore are eligible to apply for a loan guarantee from LPO under Title XVII. Accordingly, project developers that have executed agreements with PREPA may apply for financing under Title XVII.[1]

LPO's decision to issue a federal loan guarantee in response to an application is a major federal action subject to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq*.), as well as associated regulatory agency consultations. As part of DOE's environmental review process for each project, LPO will comply with the requirements of Section 7 of the Endangered Species Act (16 U.S.C. 1531 *et seq*.). The ESA regulations at 50 Code of Federal Regulations [CFR] Section 402.08 allow federal agencies to designate a non-federal representative to initiate the consultation process or prepare a biological assessment pursuant to ESA Section 7. Under these regulations, ultimate responsibility for

[1] https://www.energy.gov/lpo/articles/notice-applicants-lpo-determination-eligibility-puerto-rico-projects-applying-under.

compliance with the ESA resides with the federal action agency. LPO is designating Tranche 1 applicants as a non-federal representatives under 50 CFR Section 402.08, which provides that the non-federal representative can "conduct informal consultation or prepare a biological assessment." Anticipated roles and responsibilities for LPO and Tranche 1 Applicants are identified below.

No Effect Determination: LPO and/or Tranche 1 applicants may make a "no effect" determination on threatened or endangered species or their critical habitat if LPO and/or Tranche 1 applicants determines the Service did not identify any listed or proposed species or designated or proposed critical habitat within the project's action area; the Service may have identified listed or proposed species or designated or proposed critical habitat in the project area, but the project's field surveys and/or existing information demonstrate that there are no species found and no suitable habitat or designated or proposed critical habitat within the project's action area; suitable habitat may be identified, however, there is no reasonable evidence of the presence of listed or proposed species in the project's action area; the type and scope of the project is such that it would have no effect on listed species or their critical habitat; or the action meets the criteria of the USFWS Caribbean Ecological Services Field Office Blanket Clearance Letter for federally funded projects. DOE is encouraging Tranche 1 applicants to request technical assistance from the Service if they determine that additional information relevant to the project's effect on listed or proposed species or habitat within the project area is needed prior to reaching a "no effect" determination. All "no effect" determinations will be documented in DOE's environmental reviews prepared pursuant to NEPA.

Biological Assessment: DOE and/or Tranche 1 applicants may prepare a biological assessment. If a biological assessment is prepared by the designated non-federal representative, DOE will furnish guidance and supervision and independently review and evaluate the scope, contents, and findings of effect prior to submittal to the United States Fish and Wildlife Service (Service). All species listed and proposed for listing under the ESA, designated and proposed critical habitat that may be present in the action area, and the evaluation of potential effects of the project on such species and habitat will be included in any biological assessment prepared pursuant to the proposed project. If the biological assessment concludes that the action is "not likely to adversely affect" federally listed species and/or critical habitat, and the Service concurs, the informal consultation process ends. Any consultation documentation between Tranche 1 applicants and the Service will be included in DOE's environmental review prepared pursuant to NEPA.

50 CFR Section 402 does not provide for designation of formal consultation to a non-federal representative. If, at any time, a determination of "may affect, likely to adversely affect" is reached, DOE will request initiation of formal consultation. Should there be subsequent changes in the scope or design of the project funded under Title XVII, discovery of the presence of a previously unknown listed species or critical habitat, or the listing of new species, DOE will request re-initiation of formal consultation.

If you or your staff have questions concerning this project or DOE's NEPA process, please contact me at 301-525-5944, or via email at LPO_Environmental@hq.doe.gov.

Sincerely,

Todd Stribley
NEPA Compliance Officer
Loan Programs Office

ATTACHMENT B: DRAFT-BIOLOGICAL ASSESSMENT

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

D R A F T - BIOLOGICAL ASSESSMENT
ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

SALINAS SOLAR PV PROJECT

AGUIRRE AND JOBOS WARDS
SALINAS AND GUAYAMA, PR

SUBMITTED TO:

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

PREPARED ON BEHALF OF:

CLEAN FLEXIBLE ENERGY, LLC

aes Puerto Rico

PREPARED BY:

AMBIENTA INC.
Environmental Consultants

OCTOBER 2023

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AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

1.0 INTRODUCTION

Clean Flexible Energy, LLC, an affiliated entity of AES in Puerto Rico, is under contract with LUMA Energy, which has an agreement to work with the Puerto Rico Electric Power Authority (PREPA) in managing Puerto Rico's electric power system. Clean Flexible Energy, LLC proposes the construction of a 120 MWn solar photovoltaic system and a 100 MW-4Hr battery system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). CFE is currently working with PREPA on a potential expansion of the battery capacity of 150 MW in addition to what was signed in the ESSA. The negotiation should be concluded in 2023.The Project will be established within lots of land owned by Agriart, LLC, with a total approximate area of 1,029 cuerdas[1], located highway PR-706, km 2.3, in the Aguirre and Jobos Wards, in the Municipalities of Salinas and Guayama, P.R. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), within a property located to the northwest of the Project, owned by CIRO GROUP with an approximate occupation area of 20 cuerdas to connect the proposed photovoltaic solar system to a new electric substation. The construction of this project is in line with the objectives of Law No. 17 of April 11, 2019, since in addition to providing an alternative energy source, also contributes to improving the quality of the environment using renewable energy sources, reducing the burning of fossil fuels and greenhouse gas emissions, representing a better use of natural resources for benefit of the environment, public health, and the economy.

A Federal financing loan from the U.S. Department of Energy is being considered to establish this privately own project which support the objectives of the "Puerto Rico Public Energy Policy Law" (Law No. 17 of April 11, 2019). This law was created to establish the public energy policy of Puerto Rico, to create the parameters that will guide a resilient energy system, reliable and robust, with fair and reasonable rates for all classes of consumers, make it possible for the user of the energy service to produce and participate in energy generation, facilitate the interconnection of generation and microgrids, and disaggregate and transform the system electric in an open one. Article 1.11 (f) of said law provides that to facilitate the development of renewable energy projects and comply with the Renewable Energy Portfolio established in Law No. 82-2010, as amended, all permits, consultations, variations, endorsements, certifications, concessions and/or authorizations for renewable energy projects, including, but not limited to, the procedures related to compliance with Law 416-2004, as amended, known as the Law on Environmental Public Policy, must be processed by the Permit Management Office and other concerned agencies following the expedited procedures for states of emergency established under Law 76-2000, as amended, and the administrative orders and regulations applicable to these cases of the concerned agencies.

[1] In Puerto Rico, a "cuerda" is a traditional unit of land area nearly equivalent to 0.971 acre (3,930.39 m^2).

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Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

This Biological Assessment (BA) has been prepared as part of a consultation process with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act (ESA), and in accordance with legal requirements set forth in Section 7 of the ESA (16 U.S.C. 1536; see also 50 CFR Part 402). This BA defines and evaluates the potential effects of Jobos PV Project over ESA-Listed Species in the Project area, herein after the Action Area.

Based on the desktop review of existing literature from the US Fish and Wildlife Service (USFWS) *Information for Planning and Consultation Online* (IPaC), and other consulted references, there are no USFWS or DRNA critical habitats designated at the proposed Project areas. The IPaC Report indicates the potential occurrence of the listed species Puerto Rican Boa (*Chilabothrus inornatus*) and the Yellow-shouldered Blackbird (*Agelaius xanthomus*) within the project vicinity. **Appendix A** includes the IPaC report for the project area.

In addition, the IPaC reports that there are no migratory birds of conservation concern expected to occur within the Action Area. Also, the IPaC reports the presence of the Antillean Manatee (*Trichechus mantus*), this report most likely is a glitch on the IPaC platform.

Based on the National Wetland Inventory (NWI) Maps, the IPaC reports the presence of wetlands classified as freshwater emergent wetlands (PEM1/SS3A, PEM1A PEM1C and PEM1/F03C), freshwater forested/shrub wetlands (PF03A), freshwater pond excavated (PUBHx) and riverine intermittent streams (RSUBFx and R4SBC). Based on the Project's wetland delineation studies most of the wetland areas shown in the NWI Maps are agricultural lands that do not the three wetland criteria; however, some wetland areas and ephemeral and intermittent streams were found to be under the jurisdiction of Section 404 of the Clean Water Act. **Appendix B** includes the wetland jurisdictional determination and delineation studies performed for the Project. The Project has been designed to avoid any impacts to aquatic resources.

As part of the PR Commonwealth environmental permit process and compliance for the Project, a series of Flora and Fauna Studies and Natural Habitat Classification Reports were performed and submitted to the PR Department of Natural and Environmental Resources (DRNA, by its Spanish Acronym). **Appendix C** includes the DRNA Natural Habitat Certifications and flora and fauna studies. These studies where prepared in Project phases as: Salinas A, which correspond to the lands located to westernmost side of the Project; Salinas B, which correspond to the lands located to easternmost side of the project; and Salinas LT for the electric interconnexion with correspond to the lands to the northwestern of the Project. The DRNA cases are as follows:

AMBIENTA INC.
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HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

- Salinas A (case number O-SE-CCH01-SJ-01881-19052021): Natural Habitat Classification Category 4, *natural habitat of ecological value* for portion of lands occupied by wetlands and forested corridors within the northern portion; and Natural Habitat Classification Category 6, *habitat with low potential to become essential, of high value or of ecological value* for the rest of the parcels. These lands have been extensively impacted in the past and used for agriculture. The Category 4 designation was based on the sighting of one (1) specimen of the endemic non-federally listed species, but commonwealth endangered reptile species southern garden lizard (*Ctenonotus poncensis*). This species was observed within forested areas associated to the northern hills, outside of the Action Area. This species was reported by previous environmental studies performed for the former agriculture operation (DOW-Mycogen Seeds) to occur within forested corridors and streams of the Project vicinity.

- Salinas B (case number O-SE-CCH01-SJ-01947-04082021): Natural Habitat Classification Category 4, *natural habitat of ecological value* for portion of lands occupied by wetlands and forested corridors within the northwestern portion and associated to Quebrada Amorós; and Natural Habitat Classification Category 6, *habitat with low potential to become essential, of high value or of ecological value* for the rest of the parcels. These lands have been extensively impacted in the past and used for agriculture. The Category 4 designation was based on the sighting of two (2) specimens of the endemic and federally and commonwealth endangered bird species, Yellow-shouldered Blackbird (*Agelaius xanthomus*), which were documented with a flock of the Puerto Rican Grackle (*Quiscalus niger*) building nest within abandoned structures that use to be part of the former agriculture operation and outside of the Action Area.

- Salinas LT (case number O-SE-CCH01-SJ-02668-06092023): This case is currently under evaluation by the DRNA, however, based on the performed flora and fauna study and observed vegetative communities, it was classified by the biologist who performed the study as Natural Habitat Classification 5, *habitat with high potential to become essential, of high value or of ecological*. During the evaluation of the interconnexion line, a specimen of the Yellow-shouldered Blackbird (*Agelaius xanthomus*) was observed flying over the portion of the line that crosses road PR-706, in the vicinity of km 2.3.

The seldom sightings of the Yellow-shouldered Blackbird can be considered as aleatory and to occur sporadically. Based on the species' behavior and since its typical suitable habitat does not occur within the Action Area, limited sightings of the species can occur.

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HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

2.0 PROJECT DESCRIPTION

Clean Flexible Energy, LLC proposes the construction of a 120 MWn solar photovoltaic system and a 100 MW-4Hr battery system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). CFE is currently working with PREPA on a potential expansion of the battery capacity of 150 MW in addition to what was signed in the ESSA. The negotiation should be concluded in 2023.The Project will be established within lots of land owned by Agriart, LLC, with a total approximate area of 1,029 cuerdas[1], located highway PR-706, km 2.3, in the Aguirre and Jobos Wards, in the Municipalities of Salinas and Guayama, P.R. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), within a property located to the northwest of the Project, owned by CIRO GROUP with an approximate occupation area of 20 cuerdas to connect the proposed photovoltaic solar system to a new electric substation. **Figure 1** includes the location map of the project area.

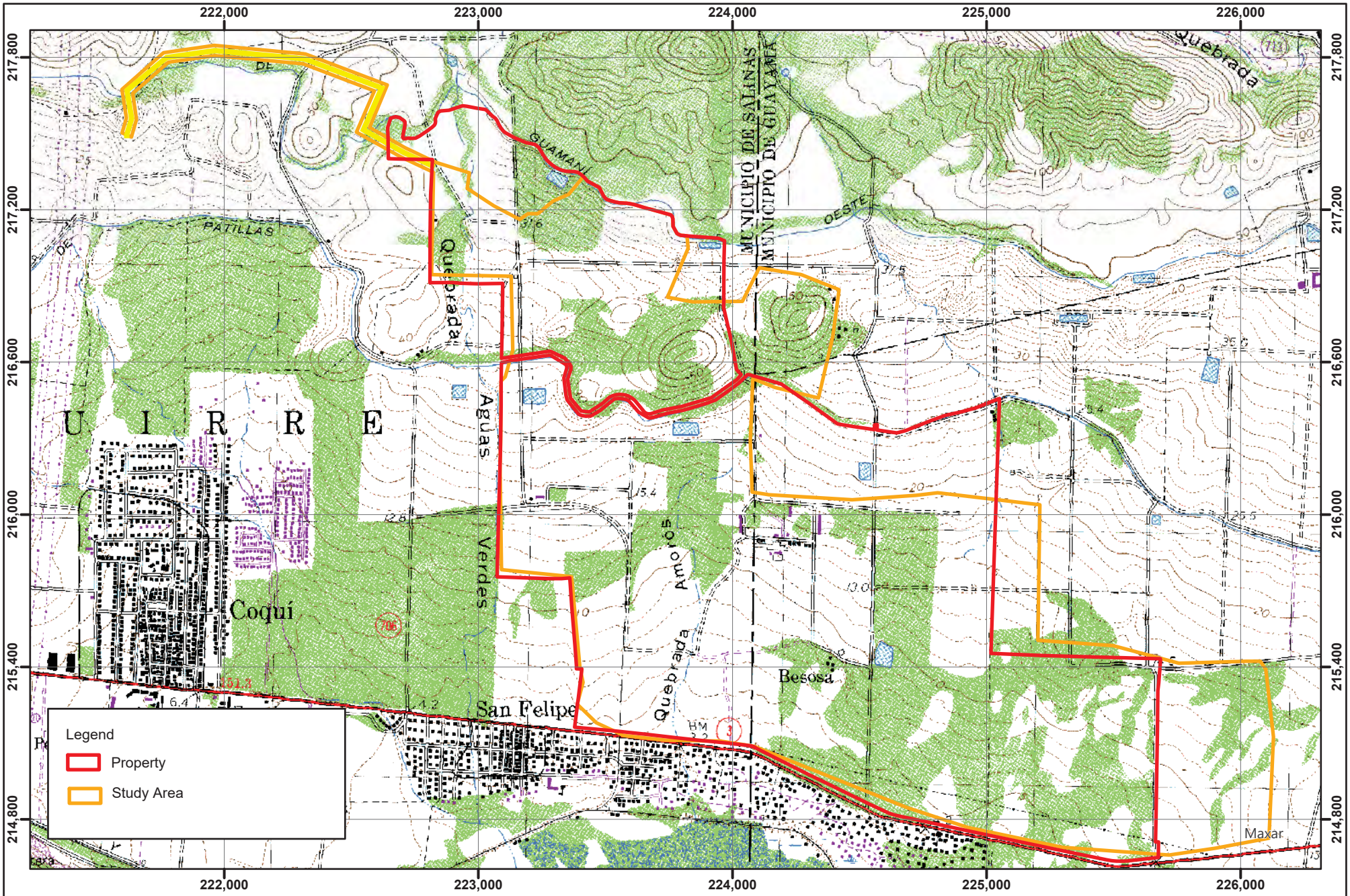
The Project will occupy approximately 641 cuerdas of the Agriart, LLC properties, avoiding impacts to forested corridors and wetland areas and following DRNA recommendations, and 20 cuerdas of the interconnexion lines, for a total impact area of 661 cuerdas. **Appendix D** includes the Project layout over the aerial image.

The Project will consist of the following:

- Photovoltaic panels installed on ground-mounted support structures.
- Inverter equipment, batteries, and transformers.
- Improvements in the electrical infrastructure and the existing stormwater system.
- Interconnection line with an approximate length of 3,227 meters inside the solar property until it crosses PR-706, and extending 1,500 meters the connection point, with a maximum ROW of 40 meters wide.
- Substation, transformer and all the necessary equipment for the proper functioning of the substation.
- Internal roads necessary for the operation and maintenance of the system.
- Administrative office.

The main access to the property is via State Road PR-706, km 2.3. The lands where the Project is proposed are accessible to potable infrastructure, sanitation, telecommunications, and electricity. The Project will benefit the generation of electricity from a renewable source to meet PREPA's energy needs. These lands have been extensively impacted in the past by agricultural activities.

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TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:20,000

640 320 0 640 Meters



Figure 1: Location Map

Salinas Solar PV - Salinas, PR

N W E S

Date: 8/22/2023

PMG AND ASSOCIATES

Document Path: M:\29409-AES-Salinas-PV\GIS\PRO\29409_AES_SALINAS-PV.aprx

3.0 ACTION AREA

The Project is located at the Aguirre and Jobos Ward, in the Municipalities of Salinas and Guayama, P.R. These lands have been extensively impacted in the past by agriculture activities.

The Action Area, which consists of lands owned by Agriart, LLC for the Project and by CIRO GROUP for the interconnexion line, is located at highway PR-706, km 2.3, in the Aguirre and Jobos Wards, in the Municipalities of Salinas and Guayama, P.R.

The Project will occupy approximately 641 cuerdas of the Agriart, LLC properties, avoiding impacts to forested corridors and wetland areas and following DRNA recommendations, and 20 cuerdas of the interconnexion lines, for a total impact area of 661 cuerdas. **Figure 2** shows the aerial image of the Project area and **Appendix D** shows the Action Area (impacts) over the aerial image. The Action Area and direct impacts can be described as follows:

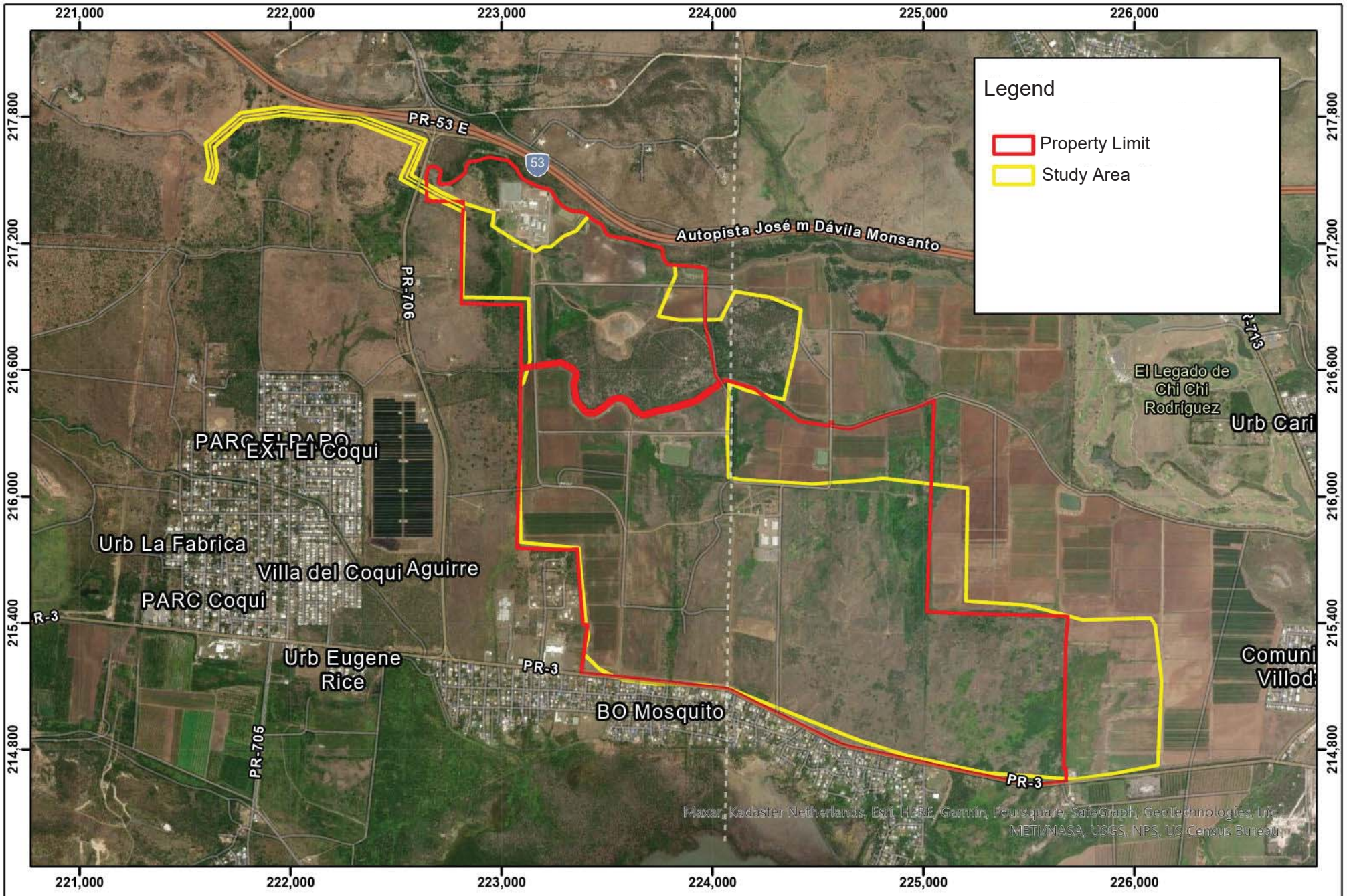
- Agriart, LLC Lots: approximate combined area of 641 cuerdas.
- Interconnection line and ROW (CIRO GROUP Lots): 20 cuerdas.

According to the Holdrige life zone system, the Action Area is in a life zone classified as *dry forest*. The average daily temperature ranges from 85.8°F to 91.4°F. The average annual rainfall fluctuates from 600mm to 1,000mm and is most frequent during the months of September to November. Evaporation exceeds precipitation. The average relative humidity is 80%. The winds usually blow from the east.

The Action Area topography is mostly flat and consists of formerly managed lands used in the past for agriculture; some areas have scrub-shrub vegetation and others scattered partially forested areas. The vegetation of the area has been subject to intense human activity and anthropogenic impacts, including logging and agriculture. The ceasing of these activities has allowed the partial regeneration of the vegetation in some areas; however, most areas seem to be in very early stages of secondary succession dominated by grasses.

Vegetative communities of the Action Area are mostly dominated by the species: *Megathyrsus maximus* (Guinea grass), *Achyranthes aspera* (prickly chaff flower), *Sida acuta* (common wireweed) *Solanum torvum* (turkey berry) *Albizia procera* (white siris) *Prosopis juliflora* (mesquite), *Pithecellobium dulce* (Manila tamarind), *Guazuma ulmifolia*, and (West Indian elm), *Leucaena leucocephala* (white leadtree).

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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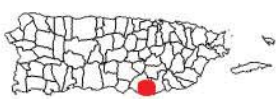


Figure 2: Aerial photo (2021)

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Date: 8/22/2023

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4.0 LISTED SPECIES AND CRITICAL HABITAT CONSIDERED

The primary evaluated literature for the preparation of this BA consisted of information available in the US Fish and Wildlife Service (USFWS) *Information for Planning and Consultation Online* (IPaC), on information from the Natural Heritage Office of the Department of Natural and Environmental Resources (DRNA, by its Spanish Acronym) of Puerto Rico, and on information from the Environmental Sensitivity Index (ESI) Atlas from the National Oceanic and Atmospheric Administration (NOAA). In addition, previous studies conducted for the Project were an essential component for this BA.

Based on the desktop review of existing literature, there are no USFWS or DRNA critical habitats designated at the proposed Project areas. The USFWS IPaC Report indicates the potential occurrence of the listed species Puerto Rican Boa (*Chilabothrus inornatus*) and the Yellow-shouldered Blackbird (*Agelaius xanthomus*) within the Project vicinity. However, the IPaC reports the Puerto Rican Boa within all locations of Puerto Rico main Island, even within completely developed urban areas. The presence of the Puerto Rican Boa was not confirmed during the execution of any of flora and fauna studies performed for the Project. **Appendix C** includes the DRNA natural habitat classification letters and flora and fauna studies performed for the Project.

During the Project's bio-surveys and flora and fauna assessments, two (2) specimens of the endemic and federally and commonwealth endangered bird species *Agelaius xanthomus* (Yellow-shouldered Blackbird-YSB), were documented with a flock of the Puerto Rican Grackle (*Quiscalus niger*) building nests within an abandoned structure that use to be part of the former agriculture operation. In addition, during the evaluation of the interconnexion line, a specimen of the YSB was observed flying over the portion of the line that crosses road PR-706, in the vicinity of km 2.3, outside the Project area. The YSB is designated as an endangered species at both, federal and state level. This sighting is considered random and transitory, when the Icterids tend to group together just before the reproductive season. This species was not observed at any other location of the Action Area. **Table 1** includes the listed species reported for the Action Area and the ESA status.

TABLE 1: ESA LISTED SPECIES STATUS AND CRITICAL HABITAT.

SPECIES	ESA DESIGNATION	PRESENT IN ACTION AREA	DESIGNATED CRITICAL HABITAT
Chilabothrus inornatus	Endangered	**NO**	**NO**
Agelaius xanthomus	Endangered	YES	**NO**

Based on the species behavior, Project location, and on the fact that structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession with almost no forested areas, and which also show limited evidence of suitable habitat (habitat structure and prey availability) for this species, it has been determined that the proposed action ***"may affect, but not likely to adversely affect"*** the species *Chilabothrus inornatus*.

This effect is mostly related to seldom incidental encounters during the construction phase of the proposed action. Based on the species behavior, the proposed action may affect this species through injury or death caused by mechanized works, construction and boas hidden on engine vehicle compartment. Consequences include potential loss of individuals; however, those can be considered not likely to adversely affect this species' existence. Capture and relocation of boas is an effective nonlethal mechanism of removing individuals out of harm's way, however it is considered as an incidental take, given this fact, the relocation of any encountered specimens will be coordinated with the corresponding agencies and no boas are proposed to be relocated by Project personnel.

On June 2022, the USFWS issued a Programmatic Biological Opinion (PBO) for the Puerto Rican Boa, which was amended by the agency in July 2023. The PBO contains an *Incidental Take Statement* (ITS) for this species. Based on the presented effect analysis and on the ITS, and to be exempt from ESA Section 7 consultation process, Clean Flexible Energy, LLC will undertake the non-discretionary *Reasonable and Prudent Measures*, the *Terms and Conditions, Monitoring and Reporting Requirements* and *Conservation Measures* included in the PBO. In addition, Clean Flexible Energy, LLC will require the contractor to adhere to such measures and requirements included as part of the ITS through enforceable terms that will be added to the contract. **For this species we request the USFWS concurrence.**

Yellow-shouldered Blackbird (YSB)

The Yellow-shouldered Blackbird (*Agelaius xanthomus*) is designated under the ESA as an *Endangered* species; it is also designated as an *Endangered* species under the Puerto Rico Wildlife Act 241 and its DRNA Regulation 6766. The YSB is an endemic non migratory species that was once common at lower elevations throughout Puerto Rico, but now is mainly concentrated in the mangrove zone of southwestern Puerto Rico although it has also been reported in suburbs, towns, coastal scrubs, and savannas. Its varied diet is composed of arthropods, nectar, fruit, and seeds, usually obtained in trees and shrubs, also grains and human foods taken at ground level. It is the primary host of a brood parasite, the Shiny Cowbird (*Molothrus bonariensis*).

Ambienta Inc.
Environmental Consultants
HC2 Box 14029 Aguas Buenas, PR 00703
Tel. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

Adult individuals measure 8″ on average. Body feathers of adults (both male and female) are blackish neutral gray and in the sunlight have a faint bluish green reflection the shoulder patches a have a golden yellow color. The humeral patch is usually edged with a narrow white margin, and in adults under-wing humeral feathers are tinged with orange.

During the flora and fauna study performed for the Project (Ambienta Inc. 2021 and 2023, see **Appendix C**) two seldom incidents of the presence of the YSB were documented within the Action Area vicinity and outside of the Project area. **Figure 3** includes the location where the species was observed.

Based on the bio-surveys and flora and fauna studies (see **Appendix C**) conducted by AMBIENTA INC. for the Project site the following is concluded:

1) There is no suitable habitat within the Action Area, however, the species can be encountered sporadically and aleatory during foraging activities, mostly during the breeding season when it tends to join flocks of other Icterid species.

2) The species was observed within the proposed Action Area and its vicinity, specifically at an abandoned building with specimens of *Quiscalus niger* (Greater Antillean Grackle), and crossing the interconnexion line, at State Road PR-706, in the vicinity of km 2.3.

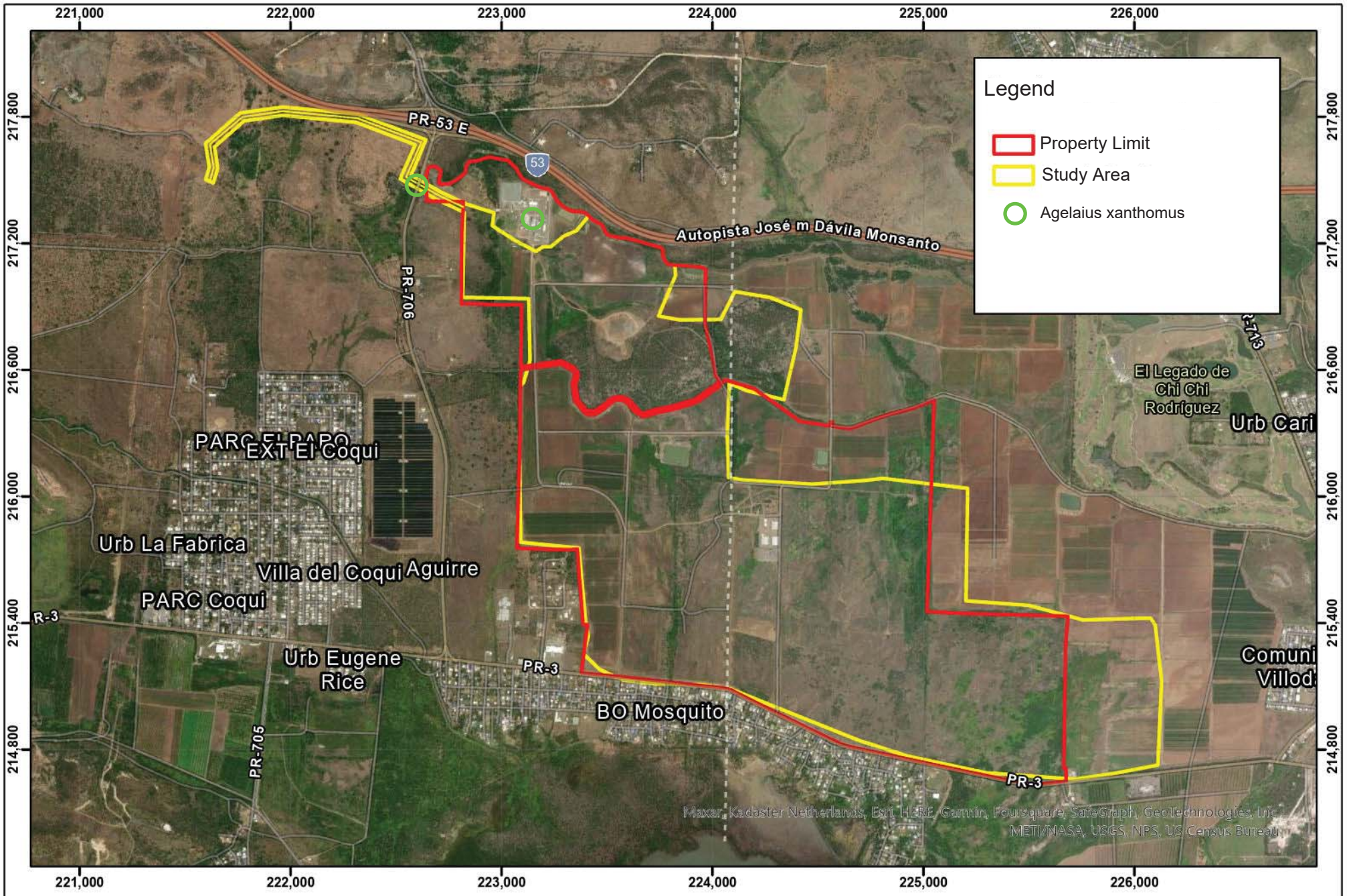
Based on the species behavior and distribution range, Project location, on the fact that the structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession and which do not have the typical suitable habitat for this species, on the fact that this species flies and can have a very wide range mobility along natural areas, it has been determined that the proposed action will have ***"no effect"*** over the species *Agelaius xanthomus*. This effect is mostly related to seldom occurrence of the species during the construction and operation phases of the proposed action and with a higher probability during matting and nesting season. **For this species we request the USFWS concurrence.**

Table 2 includes the Project's Effect Summary over ESA Listed Species and request for agencies determination.

TABLE 2: PROJECT'S EFFECT SUMMARY OVER ESA LISTED SPECIES.

SPECIES	PROJECT EFFECT	REQUEST TO AGENCIES
Chilabothrus inornatus	***"may affect, but not likely to adversely affect"***	**Concurrence**
Agelaius xanthomus	***"no effect"***	**Concurrence**

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com



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Figure 3: Agelaius xanthomus sightings

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N W E S

Date: 8/22/2023

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6.0 CONSERVATION MEASURES

All the portions of lands classified by the DRNA under the natural habitat classification Category 4, *natural habitat of ecological value*, which includes delineated wetlands, streams and forested corridors will be avoided and were set apart of the Action Area. No impacts will occur within those lands to avoid impacts over such habitats, as recommended by the DRNA.

Based on the performed effect analysis a series of conservation measures should be taken before, during and after the construction of the Project by the implementation of a conservation protocol. Such protocol will include specific measures for each species and best management practices (BMPs) for vegetation clearing and erosion and sedimentation control, among other conservation measures. Clean Flexible Energy LLC will hire an environmental consulting firm that will provide a Biologist to instruct Project's personnel to implement the species conservation protocol strategies during the Project's clearing and grubbing phase to monitor the potential presence of ESA Listed Species.

***Chilabothrus inornatus* (Puerto Rican Boa):**

The species has an island-wide distribution and at present it is more abundant than decades ago. It 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. Considered mostly nocturnal, *C. inornatus* remains less active, concealed or basking under the sun during the day. This BA has determined that the Project ***"may affect, but not likely adversely affect"*** this species. Clean Flexible Energy, LLC will undertake the non-discretionary *Reasonable and Prudent Measures*, the *Terms and Conditions*, *Monitoring and Reporting Requirements* and *Conservation Measures* included as part of the USFWS PBO, as amended. In addition, Clean Flexible Energy, LLC will require the contractor to adhere to such measures and requirements included as part of the PBO through enforceable terms that will be added to the contract.

***Agelaius xanthomus* (Yellow-shouldered Blackbird):**

This species is mainly concentrated in the mangrove zone of southwestern Puerto Rico such as the Aguirre State Forest located south of the Action Area. This could result in the occasional sighting of the *Agelaius xanthomus* flying over the Action Area from its resting place to his feeding grounds. The documented sighting is considered random and transitory, and the probability of these sightings will increase during mating season. This BA has determined that the Project would have ***"no effect"***, over his species.

AMBIENTA INC. *Environmental Consultants*
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

Conservation Protocol:

The following conservation measures will be implemented:

- A pre-construction training program should be prepared and implemented to inform and instruct all management personnel about the conservation measures and protocols, and about the need to avoid harming listed species.
- Inform all Project personnel about the potential presence of the listed species and inform them about the conservation protocol. An educational poster or sign with photos and illustration of the species should be displayed at the Project site.
- Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the Project area, the buffer zones, and areas to be excluded and protected should be clearly marked in the Project plan and in the field.
- Before clearing and grubbing activities, visual encounter surveys should be conducted every morning at working areas to detect the presence of any of the listed species prior to work commencement; designated personnel who participated in the pre-constructions training program should be delegated with these tasks.
- If a Puerto Rican Boa is encountered within the working areas, it should be left alone without harm until it goes away by itself; however, if a boa is encountered within any machinery cavity (e.g., engine, radiator, etc.) and relocation is needed, it should not be captured by Project workers, the designated Project personnel shall call the DRNA to manage the specimen.
- If YSB nesting is detected, construction activities or any human-induced disturbance within a 200-meter perimeter of the closest nest must be avoided and the construction activities may commence once fledglings have abandoned their nests.
- A before-and-after photographic record of the Project and working areas should be established for all working areas, such a record shall include more details for locations where any listed species is detected.
- In addition, a record of all listed species detections, including date, time, location, and approximate number of individuals should be performed and submitted to USFWS and DRNA.
- Proper erosion and sedimentation control measures and best management practices must be implemented in all areas required by the Project's Stormwater Pollution Prevention Plan.

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

7.0 CONCLUSION

After completing the desktop review, based on the flora and fauna studies performed for the Project and based on the habitat present at the Action Area and proposed scope of work, it is concluded that the listed species *Chilabothrus inornatus* and *Agelaius xanthomus* could be encountered in the Action Area and/or its vicinity. Given this fact, a series of Best Management Practices (BMPs), conservation and protection measures should be taken to avoid and minimize impacts over those species. The performed Project's effect analysis reveals these findings over the ESA Listed Species present at the Action Area:

A) The proposed action ***"may affect, but not likely to adversely affect"*** the species *Chilabothrus inornatus* (Puerto Rican Boa). In addition, there are no designated critical habitats for these species within or close to the Action Area. As part of the construction activities, personnel from the Project will be trained and delegated to perform daily inspection and monitoring of all working areas, including but not limited to staging areas, access roads and machinery. Concurrence with this effect is herein requested. The proposed conservation actions for this species are expected to achieve the avoidance and minimization of specimens "take" or impact. Concurrence with this effect is herein requested.

B) The proposed action may have ***"no effect"*** over the species *Agelaius xanthomus* (Yellow-shouldered Blackbird). There are no designated critical habitats for these species within or close to the Action Area. As part of the clearing and grubbing activities, personnel from the Project will be trained and delegated to perform daily inspection and monitoring of all working areas, including but not limited to staging areas and access roads. The proposed conservation actions for this species are expected to achieve the avoidance of any specimens "take" or impact. Concurrence with this effect is herein requested.

In addition, the IPaC reports that there are no migratory birds of conservation concern expected to occur within the Action Area. Based on the National Wetland inventory maps, the IPaC reports the presence of wetlands. During the Project planning stages, wetland jurisdictional determination and delineation studies were performed to properly plan the Project design and to avoid impacts over streams and wetlands. All the portions of lands classified by the DRNA under the natural habitat classification Category 4, *natural habitat of ecological value*, which includes delineated wetlands, streams and forested corridors will be avoided and were set apart of the Action Area. No impacts will occur within those lands to avoid impacts over such habitats, as recommended by the DRNA.

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

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AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

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Ambienta Inc.
Environmental Consultants
HC2 Box 14029 Aguas Buenas, PR 00703
Tel. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

APPENDICES

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

APPENDIX A: USFWS IPAC REPORT

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Guayama and Salinas counties, Puerto Rico



Local office

Caribbean Ecological Services Field Office

(787) 834-1600
(787) 851-7440
CARIBBEAN_ES@FWS.GOV

MAILING ADDRESS
Post Office Box 491
Boqueron, PR 00622-0491

PHYSICAL ADDRESS
Office Park I
State Road #2 Km 156.5, Suite 303}
Mayaguez, PR 00680

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. 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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
West Indian Manatee Trichechus manatus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4469	Threatened Marine mammal

Birds

NAME	STATUS
Yellow-shouldered Blackbird Agelaius xanthomus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7383	Endangered

Reptiles

NAME	STATUS
Puerto Rican Boa Chilabothrus inornatus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6628	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

NOT FOR CONSULTATION

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The data in this location indicates there are no migratory birds of conservation concern expected to occur in this area.

There may be migratory birds in your project area, but we don���t have any survey data available to provide further direction. For additional information, please refer to the links above for recommendations to minimize impacts to migratory birds or contact your local FWS office.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

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Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Marine mammals

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take (to harass, hunt, capture, kill, or attempt to harass, hunt, capture or kill) of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The Endangered Species Act (ESA) of 1973.
2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. 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.

The following marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

West Indian Manatee *Trichechus manatus*
https://ecos.fws.gov/ecp/species/4469

Facilities

National Wildlife Refuge lands

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 at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND
- PEM1/SS3A
- PEM1A
- PEM1C
- PEM1/FO3C

FRESHWATER FORESTED/SHRUB WETLAND
- PFO3A

FRESHWATER POND
- PUBHx

RIVERINE
- R5UBFx
- R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX B: WETLAND JURISDICTIONAL DETERMINATION AND DELINEATION STUDIES

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

WETLAND JURISDICTIONAL DETERMINATION AND DELINEATION STUDY

AES SALINAS

PHOTOVOLTAIC SOLAR SYSTEM PROJECT

SLINAS, PUERTO RICO

PREPARED FOR:

PMG & ASSOCIATES, INC.

PREPARED BY:

AMBIENTA INC.

ENVIRONMENTAL CONSULTANTS

HC2 Box 14029 Aguas Buenas, PR 00703

Tel. (787) 510-7031 / (787) 732-0907

ambientainc@gmail.com

APRIL 2021

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AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-6137 / ambientainc@gmail.com

EXECUTIVE SUMMARY

Clean Flexible Energy, LLC proposes the construction of a Photovoltaic Solar System (the Project) to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The Project will be established within a parcel of land of approximately 454 acres (1,831,829 square meters), between the Aguirre and Jobos wards of the Municipalities of Salinas and Guayama, Puerto Rico.

AMBIENTA INC. was contracted to conduct a wetland jurisdictional determination study within the 454-acre parcel (the Study Area). This document represents the *Wetland Jurisdictional Determination and Delineation Study* (JD) for the AES Salinas Photovoltaic Solar Project.

The methodology used for this study followed the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean Supplement, 2011). First, a preliminary screening process of existing literature and geographic information layers was performed to determine the potential jurisdictional wetlands at the Project site. Later, to specifically identify the potential wetland areas inside the Project limits included under the jurisdiction of Section 404 of the Clean Water Act or under the jurisdiction of Section 10 of the Rivers and Harbors Act regulated by the U.S. Army Corps of Engineers (USACE), a detailed screening analysis was performed using Geographic Information System (GIS) tools, global positioning system (GPS) equipment, data collected at the field by wetland specialists, environmental scientists, biologists and environmental technicians and interpretation of the latest regulations. The field reconnaissance and assessment were conducted during the month of April 2021.

The Study Area was recently occupied by the former R & D Parent Seed Facility, DOW Agro Sciences/Mycogen Seeds of Puerto Rico Corporation facilities. A northern plot within the Study Area was observed recently tilled, but must areas are unmanaged. Abandonment of agriculture activities and other anthropogenic factors have influenced the actual condition of the Study Area.

The National Wetlands Inventory (NWI) Maps from the USFWS classify area as wetlands within the Study Area. Based on Cowardin Classification System (1979), the NWI Maps classification is as follows: PFO3A (Palustrine, forested, broad-leaved evergreen, temporarily flooded), PUBHx (Palustrine, unconsolidated bottom, permanently flooded and excavated), R4SBC (Riverine, intermittent, streambed, seasonally flooded) and R5UBFx (Riverine, unknown perennial, unconsolidated bottom, semipermanently flooded and excavated). These areas are associated to streams (creeks) and to manmade irrigation systems used as part of the agricultural activities.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

Wetlands and upland areas were found within the Study Area. Upland areas are mostly dominated by the species: *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU) and *Achyranthes aspera* (UPL); while wetland areas are dominated by the species *Urochloa mutica* (FACW) and *Urochloa arrecta* (FAC). All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS).

Final wetland delineation was performed using a combination of the three wetland criteria within the present vegetative community, selected sampling points, GPS measurements and vegetative cover observed at the site, and lidar topography overlaid over the aerial image.

Considering the degraded state of the habitat, regarding exotic vegetation, ecological functions and values of the aquatic resources within the Study Area seems to be limited. Very dry conditions were observed during site reconnaissance, including the stream (creeks) areas and the irrigation ponds, both completely dry. Some of their possible functions are: surface water storage, groundwater recharge, element transformation and cycling, dissolved substances retention and removal, and inorganic sediments accumulation. These functions serve somehow in reducing the impact from floodwaters, increasing sediment deposition, maintaining water quality, and replenishing the water supply. Limited wildlife use function and values were observed.

The wetlands found within the Study Area are located adjacent to the Aguas Verdes Creek and Amorós Creek, at the northwestern side and southeastern side of the Study Area, respectively. These areas could be considered non-jurisdictional and excluded from Clean Water Act (CWA) Section 404 regulation based on the recent U.S. Environmental Protection Agency (EPA) regulations which states that land that may have been wetlands and was converted to agricultural land prior to 1985 and that was active for agricultural use in the past 5 years is not under the jurisdiction of Section 404 of the Clean Water Act and based on Paragraph (b) (6) of the Water Protection Rule (Navigable Waters Protection Rule). Even thou the wetland area adjacent to the Amorós Creek currently could be considered non-jurisdictional, it was previously classified as jurisdictional during the permitting process for the development of the R & D Parent Seed Facility, DOW Agro Sciences/Mycogen Seeds of Puerto Rico Corporation facilities and included within a conservation easement where wetland mitigation actions took place. Other areas associated to hills located to northern portion of the Study Area where also included as part of the conservation easement. These areas should be excluded from any future project development.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

INTRODUCTION

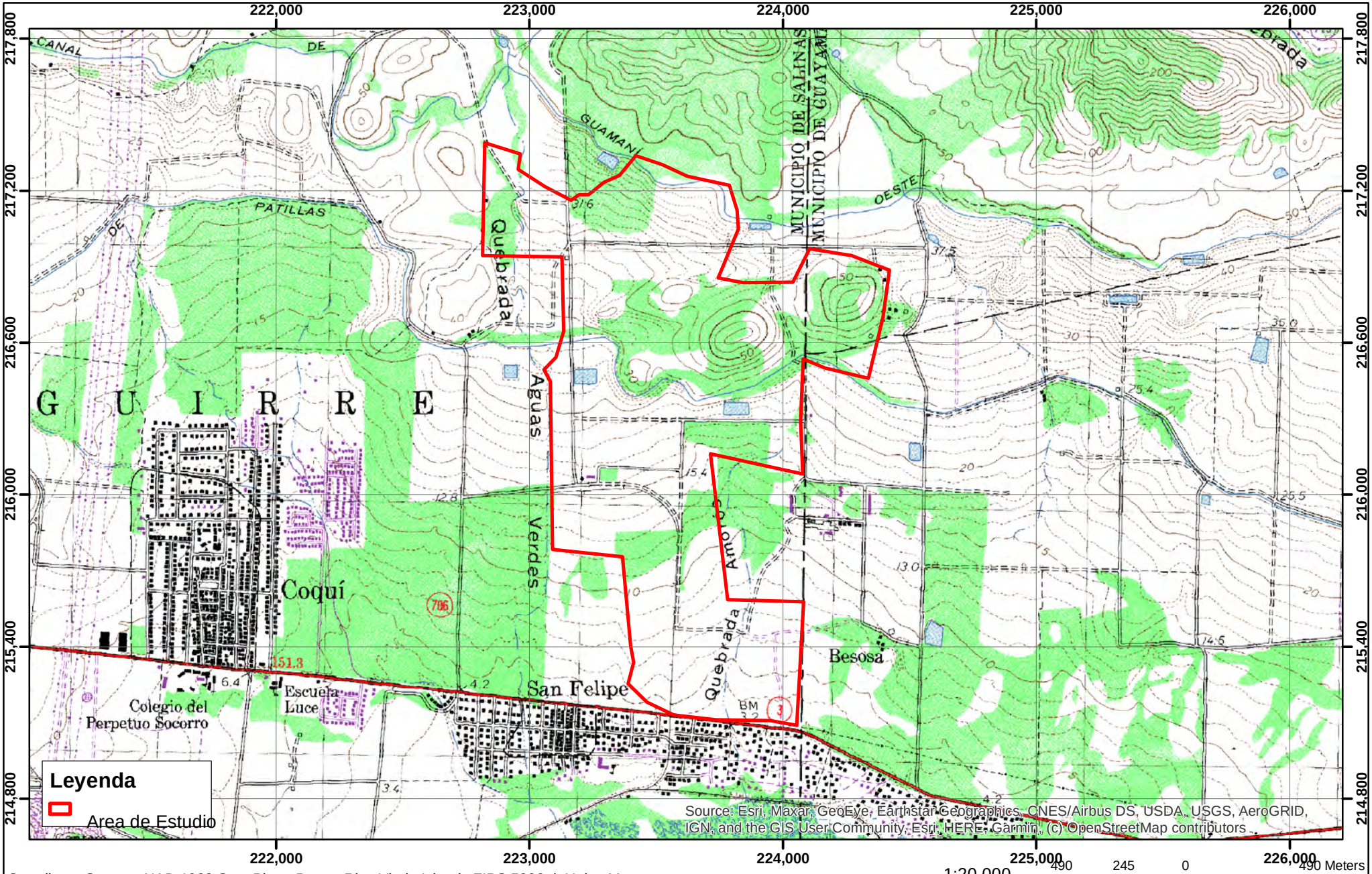
Clean Flexible Energy, LLC proposes the construction of a Photovoltaic Solar System (the Project) to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The Project will be established within a parcel of land of approximately 454 acres (1,837,338 square meters), between the Aguirre and Jobos wards of the Municipalities of Salinas and Guayama, Puerto Rico. **Figure 1** shows the USGS Topographic Quadrangle with the location of the area.

AMBIENTA INC. was contracted to conduct a wetland jurisdictional determination study within the Project parcel (the Study Area). This document represents the *Wetland Jurisdictional Determination and Delineation Study* (JD) for the Photovoltaic Solar System Project.

The methodology used for this study followed the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean Supplement, 2011). First, a preliminary screening process of existing literature and geographic information layers was performed to determine the potential jurisdictional wetlands at the Project site. Later, to specifically identify the potential wetland areas inside the Project limits included under the jurisdiction of Section 404 of the Clean Water Act or under the jurisdiction of Section 10 of the Rivers and Harbors Act regulated by the U.S. Army Corps of Engineers (USACE), a detailed screening analysis was performed using Geographic Information System (GIS) tools, global positioning system (GPS) equipment, data collected at the field by wetland specialists, environmental scientists, biologists and environmental technicians and interpretation of the latest regulations. The field reconnaissance and assessment were conducted during the month of April 2021.

This report is organized in four (4) sections: 1) site description, 2) methodology and technical approach, 3) results and discussion, and 4) conclusions and recommendations. The results and conclusions of this Study are supported by the Wetland Determination Data Forms and the Photographic Documentation presented in the appendices of this report.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:20,000

490 245 0 490 Meters



Figure 1: USGS Location Map

AES Salinas - PV, Salinas, P.R.

N W E S

Date: 4/14/2021

PMC AND ASSOCIATES

Document Path: M:\29409-AES-Salinas-PV\GIS\MXD\29409_LOC-A.mxd

SITE DESCRIPTION

Site description is essential to properly assess the attributes of the Study Area and most importantly, to confirm the presence of jurisdictional wetlands within its limits. This information, combined with a detailed field investigation and analysis that takes into account the three (3) jurisdictional wetland criteria (presence of hydrophytic vegetation, wetland hydrology and hydric soils), is fundamental in the determination of jurisdictional wetlands. This section of the report contains various figures in order to supplement the site description.

Location and Topography: The Study Area, consisting of approximately 454 acres (1,837,338 square meters), between the Aguirre and Jobos wards of the Municipalities of Salinas and Guayama, Puerto Rico (PR Datum Lat/Log coordinates: 17.989376°, -66.215444°). Its topography is mostly flat with some hills and with elevation fluctuating from 5 to 50 meters amsl. **Figure 1** (see previous page) shows the USGS Topographic Quadrangle with the location of the area.

Vegetative communities: The larger dominant vegetative communities within the Study Area consist of unmanaged herbaceous areas (upland and wetlands), scrub-shrub, tilled areas and scatter forested areas associated to streams. The Study Area was recently occupied by the former R & D Parent Seed Facility, DOW Agro Sciences/Mycogen Seeds of Puerto Rico Corporation facilities. A northern plot within the Study Area was observed recently tilled, but must areas are unmanaged. Abandonment of agriculture activities and other anthropogenic factors have influenced the actual condition of vegetative communities at the Study Area. Evaluated upland areas are mostly dominated by the species: *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU) and *Achyranthes aspera* (UPL); while wetland areas are dominated by the species *Urochloa mutica* (FACW) and *Urochloa arrecta* (FAC). All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the USFWS.

Soils: Based on the Soil Survey of the Humacao Area of Eastern Puerto Rico from the U.S. Department of Agriculture Soil Conservation Service, the Study Area contains nine (9) soil types: Amelia gravelly clay loam series (AmC2), Descalabrado clay loam series (DeE2), Descalabrado rock land complex series (DrF), Jacana clay series (JaB), Jacana clay series (JaC2), Pasto Seco clay series (PIB), Pozo Blanco clay loam series (PrC2), Rock land series (Rs) y Vives clay series (VvB). **Figure 2** include the NRCS Soil Map.

- **REPLACE THIS PAGE WITH**

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Figure 2 : Soil Survey Map
AES Salinas - PV, Salinas, P.R.



Map Scale: 1:13,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 200 400 800 1200

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

- **Amelia gravelly clay loam (AmC2):** This soil is on foot slopes in the semiarid area. This soil has severe limitations for farming because it has a low available water capacity, low fertility, and gravelly texture and because the climate is semiarid. Because of slope and the hazard of erosion, the soil requires special conservation practices. This soil has been in pasture and sugarcane. If it is irrigated it is better suited to sugarcane than to most other uses.

- **Descalabrado clay loam (DeE2):** This soil is on mountain side slopes and ridge tops in the semiarid volcanic uplands. Steep slopes, shallowness to bedrock, rapid runoff, low rainfall, and the hazard of erosion are severe limitations for farming. This soil is limited to pasture grazing and wildlife food and cover. These soil has been in pasture and brush for many years.

- **Descalabrado-Rock land complex (DrF):** This mapping unit is on mountain side slopes and ridge tops in the semiarid volcanic uplands. Because the soils of this mapping unit are steep, shallow to rocks, and rocky, they have severe limitations for farming. They are suitable for pasture and wildlife food and cover.

- **Jacana clay (JaB):** This soil is on foot slopes in the semiarid area. Low rainfall is a severe limitation that restricts the use of this soil for farming. During years when rainfall is above average and the soil is used for cultivated crops. If it is irrigated, the soil is suited to sugarcane, cut grasses, and pasture.

- **Jacana clay (JaC2):** This soil occupies foot slopes and low rolling hills in the semiarid area. This soil has severe limitations for farming because of moderate slopes, the hazard of erosion, and poor workability. Also, rainfall is low in the area. Good management and conservation practices are required to slow surface runoff. This soil is suited to pasture, and it has been in pasture for many years.

- **Paso Seco clay (PIB):** This soil is on terraces and alluvial fans in the semiarid region. The soil's high shrink well potential and poor workability are limitations for farming, and the climate in the area is adverse. This soil commonly has been used for pasture. If irrigated, the soil is suited to sugarcane, pasture and cut grasses.

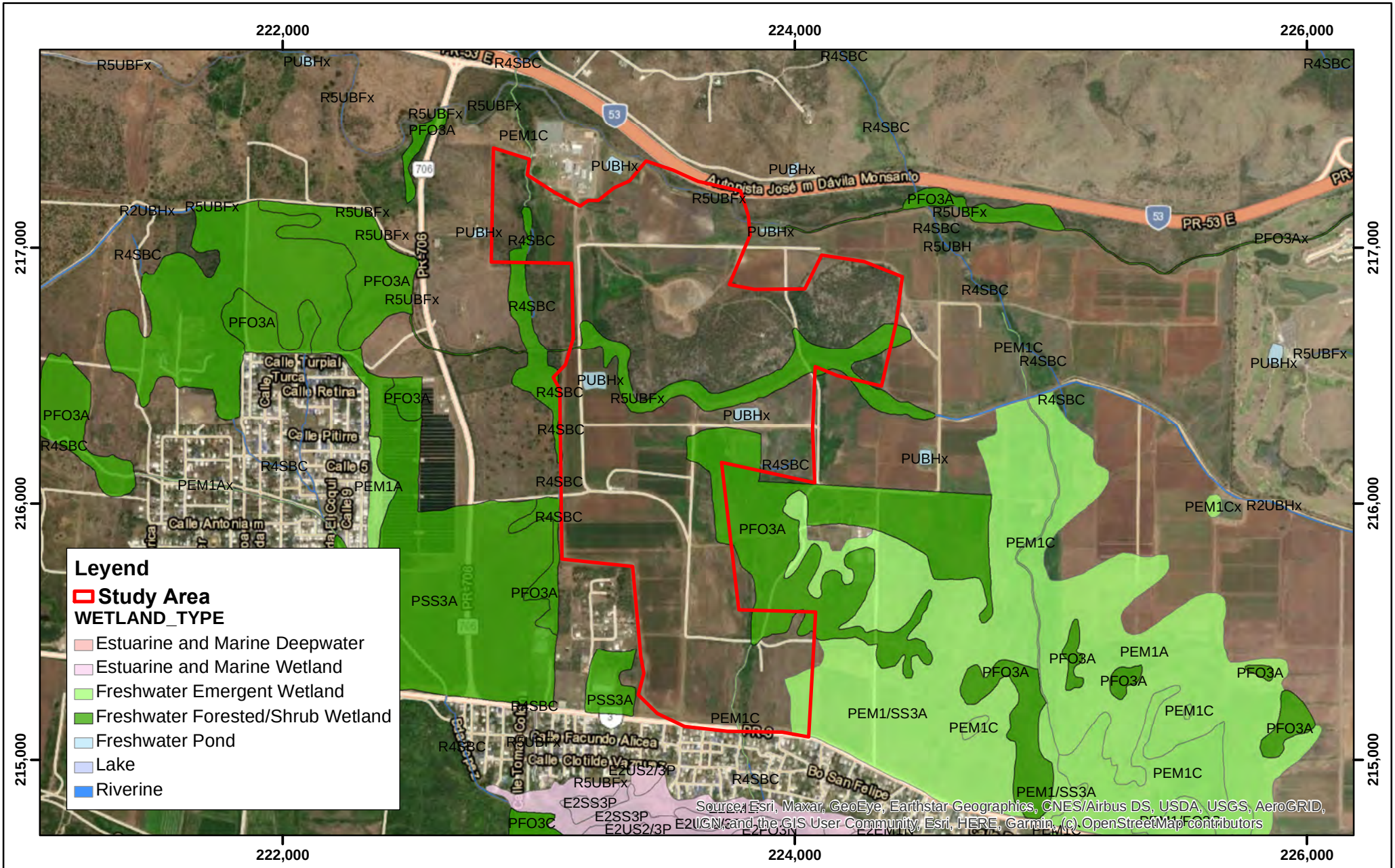
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TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

- **Pozo Blanco clay loam (PrC2):** This soil is on foot slopes in the region. It has severe limitations for farming because of slope. It requires careful management and conservation practices if it is used for clean cultivated crops. If the soil is properly managed, it is suited to sugarcane, pasture, cut grasses, and woodland.
- **Rock land (Rs)** consists of areas where rock crop out on 50 to 70 percent of the surface. Loose stones also are common on the surface. Very shallow soil material lies between the outcrops and stones. The vegetation is brush. Rock land has little value for farming or engineering uses. Its use is restricted mainly to wildlife habitat.
- **Vives clay (VvB**): This soil is on alluvial fans and terraces in the semiarid area. This soil has moderate limitations for farming because of low rainfall, slope, and the hazard of erosion. If it is irrigated the soil is suited to many kinds of food crops and to sugarcane.

Aquatic resources: The Guamaní Oeste Irrigation Channel crosses the study area through the north, and the Patillas Irrigation Channel crosses the study area through the center, both with flows from east to west. The Aguas Verdes Creek crosses the Study Area at the northwest section, then leaves it and eventually discharges in to the Jobos Bay. The Amorós creek crosses the study area in the south-southeast part. In addition, two irrigation ponds were observed dry with no water in the eastern side of the Study Area; these seem to be feed by the Patillas Irrigation Channel when needed for irrigation and to support former agricultural activities.

The National Wetlands Inventory (NWI) Maps from the USFWS classify area as wetlands within the Study Area. Based on Cowardin Classification System (1979), the NWI Maps classification is as follows: PFO3A (Palustrine, forested, broad-leaved evergreen, temporarily flooded), PUBHx (Palustrine, unconsolidated bottom, permanently flooded and excavated), R4SBC (Riverine, intermittent, streambed, seasonally flooded) and R5UBFx (Riverine, unknown perennial, unconsolidated bottom, semipermanently flooded and excavated). **Figure 3** shows the NWI Map. These areas are associated to streams (creeks) and to manmade irrigation systems used as part of the agricultural activities.

AMBIENTA INC.
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TELS. (787) 510-7031 / (787) 732-0907
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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:20,000

490 245 0 490 Meters

Figure 3 : NWI

AES-Salinas-A PV, Salinas, P.R.

N W E S

F

Date: 4/14/2021

PMG AND ASSOCIATES

Document Path: M:\29409-AES-Salinas-PV\GIS\MXD\29409-NWI.PMG.mxd

TECHNICAL APPROACH AND METHODOLOGY

A four-phase approach was used for the Wetland Jurisdictional Determination and Delineation Study (JD) performed for the Project. The technical approach followed the determination method described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean supplement, 2011).

During Phase 1 of the Study, a screening level analysis was performed to identify those areas within the Project regarded as potential jurisdictional wetlands under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The screening level analysis was performed using a Geographic Information System (GIS) loaded with the following data:

- Topography;
- Soil Survey;
- National Wetland Inventory (NWI) Map;
- Flood Zones and Hydrography;
- Aerial Photographs; and,
- Lidar topography.

The results from this phase of the investigation provided specific and important information for the design of the field reconnaissance and data collection effort.

Phase 2 of the Study consisted of a series of preliminary site visits, including the inspection of the previously identified, potential wetland areas. These visits helped validate data that was gathered during the previous phase, while also contributing to a better understanding of the environmental conditions at the Study Area in order to develop a fieldwork plan. **Appendix A** includes photographic documentation of the Study Area.

Phase 3 of the Study included the field visits to delineate any and all jurisdictional wetlands within the Study Area. This included a description of hydrology, soil and dominant vegetation at representative sampling locations.

Final wetland delineation was performed using a combination of the three wetland criteria within the present vegetative community, selected sampling points, GPS measurements vegetative communities observed during field assessment, lidar topography and identified over aerial images of the site.

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Each sampling location description is included in an individual Wetland Determination Data Form. **Appendix B** includes the transcripts of the Wetland Determination Data Forms from the Caribbean Supplement of the Wetland Delineation Manual.

The following tasks were carried out during this phase:

- Establishment of sampling transects;
- Visual inspection of the site and, identification of landscape features;
- Identification of plant communities;
- Selection of a representative area within each plant community to establish a sampling point and dig a soil pit;
- Identification of dominant plant species from the various strata around the soil pit;
- Classification of plant species using the *2014 Revision to the National List of Plants Species that Occur in Wetlands: Caribbean (Region C)*;
- Description of hydrology within and around the soil pit;
- Soil characterization using the Munsell Soil Color Chart;
- Fill in gathered data for each sampling point on the Wetland Determination Data Form from the Caribbean Supplement of the Wetland Delineation Manual; National Wetland Inventory (NWI) Map;
- Photographic documentation of the Site, soil pit and surrounding vegetation; and,
- Field delineation of wetland areas using the aerial photographs, handheld Global Positioning System (GPS) and lidar topography.

For the purposes of this Study, seventeen (17) sampling points were established along the Study Area. If wetlands were present, its limits were recorded with GPS and using as reference the observed change in vegetation over the aerial image. All areas were accessed and inspected in detail by walking and by UTV.

Phase 4 of the Study comprised the final analysis of data gathered during the inspection and delineation visits, and the drafting of this Wetland Jurisdictional Determination and Delineation Report. Final wetland boundary determination was based on the combination of all the available evidence. The field reconnaissance and assessment efforts for this Study were conducted from April 7-13, 2021.

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RESULTS AND CONCLUSION

Wetland and uplands areas were found during the site reconnaissance, assessment and jurisdictional wetland determination and delineation field visits. Several water management structures were observed within the Study Area, including drainage ditches, culverts, water control structures, irrigation structures and channels between others.

Field reconnaissance and analysis reveal that the two wetlands areas found within the Study Area could be classified as: 1) PEM1/SS1Cd associated to the Amorós Creek (Palustrine, emergent, persistent/scrub shrub, broad-leaved, deciduous, seasonally flooded, partially drained/ditched); and 2) PEM1Cd associated to the Aguas Verdes Creek (Palustrine, emergent, persistent, seasonally flooded, partially drained/ditched). **Figure 4** contains the wetland delineation map of the Study Area over the aerial photograph.

Table 1 summarizes the Jurisdictional Wetland Criteria that each one of the seventeen (17) sampling points met and the final decision on whether the area should be considered or not as a wetland. Sampling point locations are shown in **Figure 4**.

TABLE 1: WETLAND CRITERIA STATUS FOR THE SAMPLING POINTS.

SP #	Lat°	Long°	Hydrophytic Vegetation	Hydric Soil	Wetland Hydrology	Wetland Determination
SP01	17.973221°	-66.209122°	No	Yes	No	No
SP02	17.973021°	-66.207771°	No	No	No	No
SP03	17.980264°	-66.206355°	No	No	No	No
SP04	17.980819°	-66.207768°	No	No	No	No
SP05	17.980084°	-66.209732°	No	Yes	No	No
SP06	17.980830°	-66.210711°	No	No	No	No
SP07	17.980769°	-66.213814°	No	No	No	No
SP08	17.980211°	-66.213930°	No	Yes	No	No
SP09	-66.207768°	-66.207768°	No	No	No	No
SP10	17.980520°	-66.213808°	No	No	No	No
SP11	17.911846°	-66.209818	No	No	No	No
SP12	17.970376°	-66.208798°	Yes	Yes	Yes	Yes
SP13	17.970546°	-66.208220°	No	No	No	No
SP14	17.976853°	-66.209849°	No	Yes	No	No
SP15	17.986416°	-66.215958°	Yes	Yes	Yes	Yes
SP16	17.987311°	-66.216821°	No	No	No	No
SP17	17.987586°	-66.211904°	No	No	No	No

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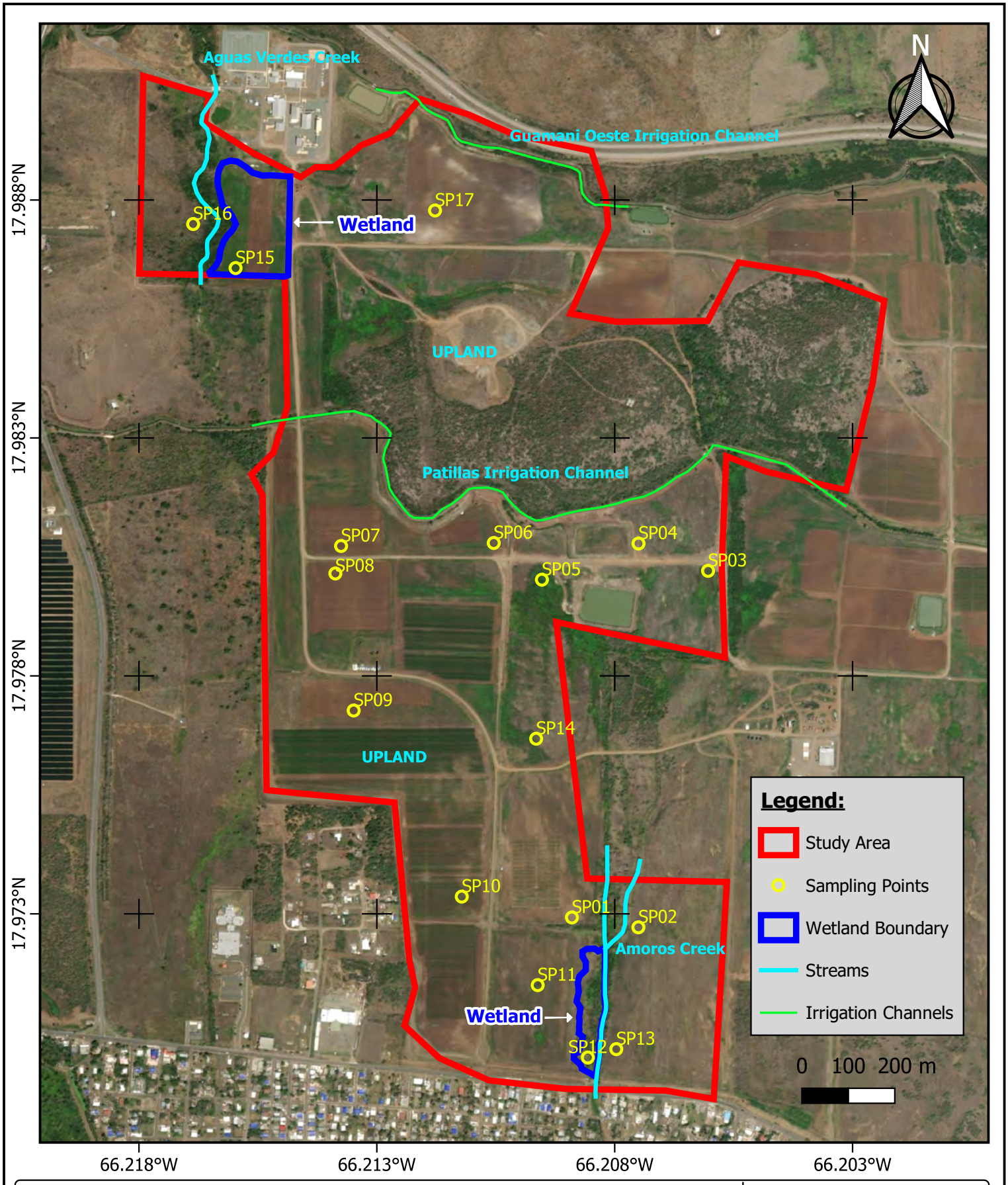


Figure 4: Wetland Delineation Map (Potentially Non-Jurisdictional)
AES-Salinas, Salinas, P.R.

AMBIENTA INC.
Environmental Consultants

Of a total of seventeen (17) sampling points, two (2) met the wetland criteria and are within seasonally flooded wetland areas. **Appendix A** contains photographic documentation of the Study Area. **Appendix B** contains the Transcripts of the Sampling Point Data Forms.

The Wetland Jurisdictional Determination and Delineation Study conducted by **AMBIENTA INC.** shows that within the Project's limits there are wetlands and aquatic resources that may be non-jurisdictional and excluded from Clean Water Act (CWA) Section 404 regulation by being considered prior converted cropland (PCC) under paragraph (b)(6) of the Navigable Waters Protection Rule. This conclusion is supported by:

- Presence of hydrophytic vegetation, wetland hydrology and hydric soils indicators;
- Superficial seasonal hydrological connection with other wetlands and/or U. S. Waters;
- Aerial Photographs, Hydric Soil Map, NWI Maps and Photographic documentation; and
- Data forms filled out during site reconnaissance.

Impacts to wetlands can be avoided through comprehensive planning incorporating these areas within the Project design. Wetlands and U.S. Waters provide functions and possess attributes that may well enhance the Project's landscape and can offer areas for recreation and education, among other services.

Considering the degraded state of the habitat, regarding exotic vegetation, ecological functions and values of the aquatic resources within the Study Area seems to be limited. Some of their possible functions are: surface water storage, groundwater recharge, element transformation and cycling, dissolved substances retention and removal, and inorganic sediments accumulation. These functions serve somehow in reducing the impact from floodwaters, increasing sediment deposition, maintaining water quality, and replenishing the water supply. Limited wildlife use function and values were observed.

The wetlands found within the Study Area could be considered non-jurisdictional and excluded from Clean Water Act (CWA) Section 404 regulation based on the recent (2020) U.S. Environmental Protection Agency (EPA) regulations which states that land that may have been wetlands and was converted to agricultural land prior to 1985 and that was active for agricultural use in the past 5 years is not under the jurisdiction of Section 404 of the Clean Water Act and based on Paragraph (b) (6) of the Water Protection Rule (Navigable Waters Protection Rule).

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The Study Area was recently occupied by the former R & D Parent Seed Facility, DOW Agro Sciences/Mycogen Seeds of Puerto Rico Corporation facilities. As part of the seed facility project development and environmental compliance with Law 241 of August 15, 1999, to establish the New Wildlife Law of Puerto Rico, some areas were designated as Conservation Easement in favor of the Department of Natural and Environmental Resources of Puerto Rico. These easements consist of areas of ravine/streams, canals, wetlands, a wetland mitigation parcel and hills; some of these areas are within the proposed site for the project and others outside. Such areas should be outside the development footprint of any future project. It is recommended to obtain the official registration plan of the plots designated as Conservation Easement to ensure their protection and as a tool for the design and planning of the project.

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TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

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APPENDIXES

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
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APPENDIX A:

PHOTOGRAPHIC DOCUMENTATION

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Typical view of the upland area.



Typical view of the wetland area.

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Soil evaluation of wetland area.



Soils crack at wetland area.

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Soil pit at wetland area.



Soil evaluation.

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Soil evaluation.



Soil evaluation.

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HC2 BOX 14029 AGUAS BUENAS, PR 00703
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FAX (787) 732-0907 / ambientainc@gmail.com

APPENDIX B:

TRANSCRIPTS OF SAMPLING POINT DATA FORMS FOR ROUTINE WETLAND DETERMINATION

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HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

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HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 7, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-01

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0

Lat: 17.973221° Long: -66.209122° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located at north and west of two drainage ditches and at the lowest point of a former crop parcel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Sesbania sericea	10	Yes	FACW
2. Mimosa pigra	5	Yes	FAC
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris barbata	30	Yes	FACU
2. Megathyrsus maximus	30	Yes	FACU
3. Malachra capitata	5	No	FACU
4. Heliotropium curassavicum	15	No	FACW
5.			
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 25	x 2 = 50
FAC species 5	x 3 = 15
FACU species 65	x 4 = 260
UPL species _____	x 5 = _____
Column Totals: 95 (A)	325 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 3/2						Silty Clay	
4 -12	7.5YR 3/2		5YR 4/6	2	RM	PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☑ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions, surface soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 7, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-02

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.973021° Long: -66.207771° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located east of the drainage channel within a lower poit area that was formerly tilled.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Sida spinosa	40	Yes	UPL
2. Megathyrsus maximus	40	Yes	FACU
3. Achyranthes aspera	20	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	40	x 4 =	160
UPL species	60	x 5 =	300
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 3/2						Silty Clay	
4 -12	7.5YR 3/2		5YR 4/6	1	RM	PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** X

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☑ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions, surface soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-03

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0

Lat: 17.980264° Long: -66.206355° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling point located at a depression area were vegetation is greener than adjacent dry areas.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Mikania micrantha	35	Yes	UPL
2. Ipomoea tiliacea	35	Yes	UPL
3. Pueraria phaseoloides	30	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 100	x 5 = 500
Column Totals: 100 (A)	500 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

SOIL

Sampling Point: SP-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 3/2						Silty Clay	30% crumble sedimentary rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-04

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0

Lat: 17.980819° Long: -66.207768° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located at a depression area north of a drainage inlet. Very dry conditions.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris radiata	50	Yes	FACU
2. Sida urens	40	Yes	NI
3. Megathyrsus maximus	10	No	FACU
4. Leucaena leucocephala	20	No	FACU
5.			
6.			
7.			
8.			
	120 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	80	x 4 =	320
UPL species	_____	x 5 =	_____
Column Totals:	80 (A)		32 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 3/2						Silty Clay	30% crumble sedimentary rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-06

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 0

Lat: 17.980830° Long: -66.210711° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located at a depression area were vegetation is greener than adjacent dry areas.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Digitaria eriantha	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 2/2						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No redoxymorpic features.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-05

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.980084° Long: -66.209732° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: PFO3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris radiata	25	Yes	FACU
2. Sida urens	25	Yes	UPL
3. Malachra capitata	25	Yes	FACU
4. Achyranthes aspera	25	Yes	UPL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	50	x 4 =	200
UPL species	50	x 5 =	250
Column Totals:	100 (A)		450 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/1		2.5YR 4/6	2	RM	PL	Silty Clay	Oxidation

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas | Municipality/Town: Salinas / Guayama | Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-07

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.980769° | Long: -66.213814° | Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris radiata	40	Yes	FACU
2. Sida urens	40	Yes	UPL
3. Megathyrsus maximus	20	No	FACU
4. Leucaena leucocephala	20	No	FACU
5.			
6.			
7.			
8.			
	120 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 80	x 4 = 320
UPL species 40	x 5 = 200
Column Totals: 120 (A)	520 (B)

Prevalence Index = B/A = 4.33

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 3/2						Silty Clay	30% crumble sedimentary rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-08

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.980211° Long: -66.213930° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris radiata	25	Yes	FACU
2. Sida urens	25	Yes	UPL
3. Malachra capitata	25	Yes	FACU
4. Megathyrsus maximus	25	Yes	FACU
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 75	x 4 = 300
UPL species 25	x 5 = 125
Column Totals: 100 (A)	425 (B)

Prevalence Index = B/A = 4.25

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/1		2.5YR 4/6	2			Silty Clay	Oxidation

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions. Sampling point located near a drainage ditch.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-09

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.980819° Long: -66.207768° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris radiata	50	Yes	FACU
2. Sida urens	40	Yes	UPL
3. Megathyrsus maximus	10	No	FACU
4. Leucaena leucocephala	20	No	FACU
5.			
6.			
7.			
8.			
	120 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 80	x 4 = 320
UPL species 40	x 5 = 200
Column Totals: 120 (A)	520 (B)

Prevalence Index = B/A = 4.33

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-09

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 3/2						Silty loam	30% crumble sedimentary rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-10

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.980520° Long: -66.213808° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Achyranthes aspera	20	No	UPL
2. Malachra capitata	20	No	FACU
3. Megathyrsus maximus	60	Yes	FACU
4. Leu			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	80	x 4 =	320
UPL species	20	x 5 =	120
Column Totals:	100 (A)		440 (B)

Prevalence Index = B/A = 4.4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 2/2						Silty Clay	30% crumble sedimentary rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

No redoxymorpic features.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions. Surface soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-11

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.911846° Long: -66.209818° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-14

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.976853° Long: -66.209849° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PFO32A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located in a cropland formally tilled and drained for agricultural proposes.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris radiata	25	Yes	FACU
2. Sida urens	25	Yes	UPL
3. Malachra capitata	25	Yes	FACU
4. Achyranthes aspera	25	Yes	UPL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	50	x 4 =	200
UPL species	50	x 5 =	250
Column Totals:	100 (A)		550 (B)

Prevalence Index = B/A = 5.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/1		2.5YR 4/6	2	RM	PL	Silty Clay	Oxidation

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators, very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-15

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.986416° Long: -66.215958° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located at north of a drainage channel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Urochloa mutica	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

Based on the historic aerial images, the sampling point is located within an area formerly used for hay production.

SOIL

Sampling Point: SP-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 2/2		2.5YR 4/6	2	RM	PL	Silty Clay	Oxidation

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Drainage patterns and soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 7, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-13

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.970546° Long: -66.208220° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located north of a drainage channel.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Sida spinosa	40	Yes	UPL
2. Megathyrsus maximus	40	Yes	FACU
3. Achyranthes aspera	20	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	40	x 4 =	160
UPL species	60	x 5 =	400
Column Totals:	100 (A)		460 (B)

Prevalence Index = B/A = 4.6

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Almost all vegetation dead and dry probably due to very dry conditions of the soil during the dry season.

SOIL

Sampling Point: SP-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 3/2						Silty Clay	
4 -12	7.5YR 3/2	99	5YR 4/6	1	RM	PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions, surface soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-16

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0

Lat: 17.987311° Long: -66.216821° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located west of a drainage channel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis pallida	20	Yes	FAC
2. Samanea saman	10	Yes	FACU
3. Pithecellobium dulce	20	Yes	FACU
4. Leucaena leucocephala	20	Yes	FACU
5.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	50	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	20	x 3 =	60
FACU species	100	x 4 =	400
UPL species	_____	x 5 =	_____
Column Totals:	120 (A)		460 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-12

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Lat: 17.970376° Long: -66.208798° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located at a depression adjacent to the Amorós creek, within an area previously delineated as wetland as part of Mycogen facility.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis pallida	15	Yes	FAC
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Urochloa arrecta	100	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species	115	x 3 =	345
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	115 (A)		345 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

SOIL

Sampling Point: SP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 2/1	90	2.5YR 4/6	10	RM	PL	Clay	Oxidation

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Marginal hydric soil indicator by the presence of some oxidation and low chroma.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry algae mat. Surface soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-17

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.987586° Long: -66.211904° Datum: PR Datum

Soil Map Unit Name: Pozo Blanco clay loam (PrC2) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located in recently tilled area and close to drainage ditches used for agricultural proposes.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: NA (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = NA

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Tilled soil, no vegetation.

SOIL

Sampling Point: SP-17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 3/2						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

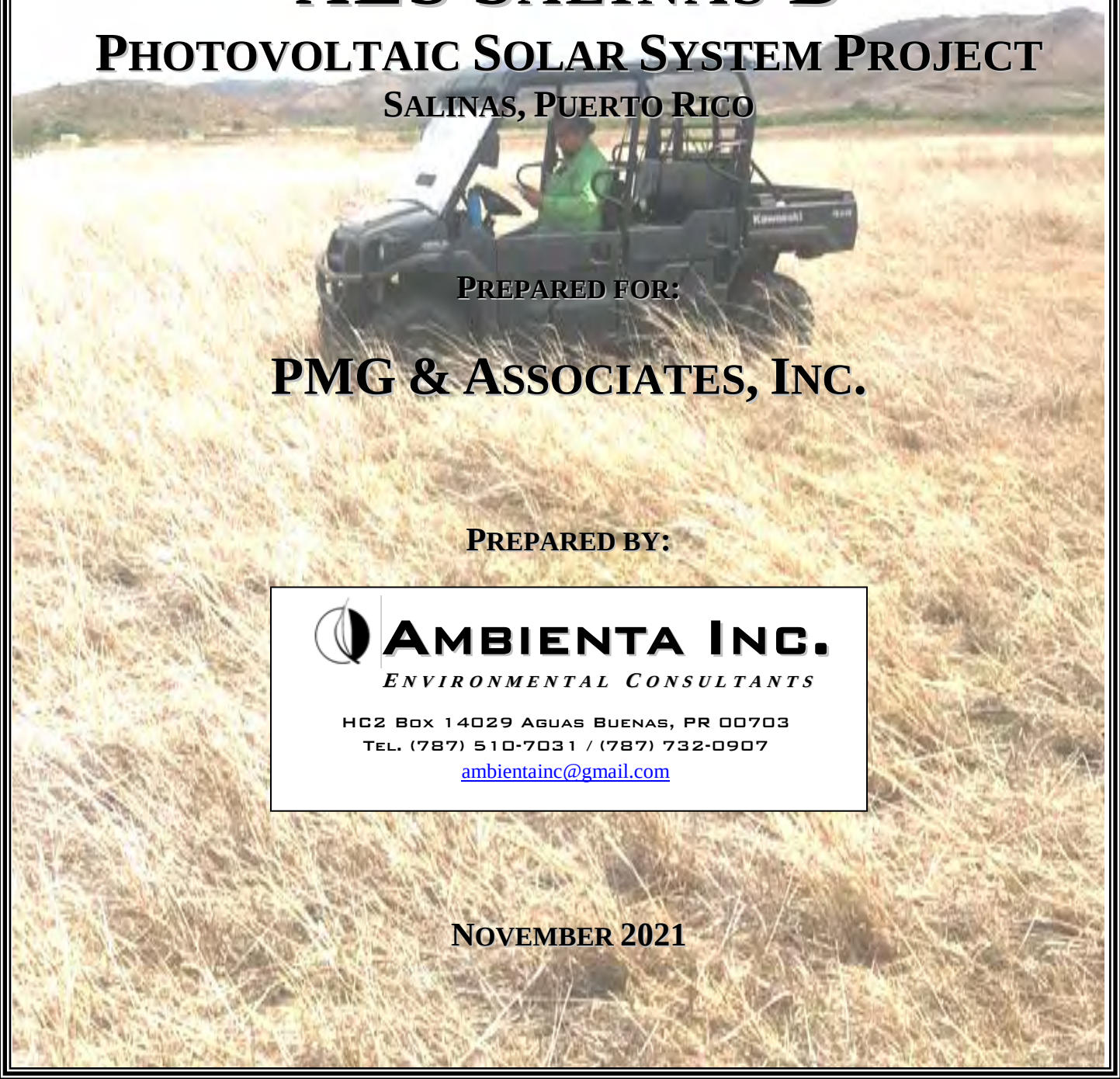
No hydrology indicators, very dry conditions.

WETLAND JURISDICTIONAL DETERMINATION AND DELINEATION STUDY

AES SALINAS B

PHOTOVOLTAIC SOLAR SYSTEM PROJECT

SALINAS, PUERTO RICO



PREPARED FOR:

PMG & ASSOCIATES, INC.

PREPARED BY:

AMBIENTA INC.

ENVIRONMENTAL CONSULTANTS

HC2 Box 14029 Aguas Buenas, PR 00703

Tel. (787) 510-7031 / (787) 732-0907

ambientainc@gmail.com

NOVEMBER 2021

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AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-6137 / ambientainc@gmail.com

EXECUTIVE SUMMARY

Clean Flexible Energy, LLC is exploring the viability of the construction of a Photovoltaic Solar System (the Project) to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA) within a parcel of land denominated as Salinas B and consisting of approximately 543 acres (2,197,210 square meters), between the Aguirre and Jobos wards of the Municipalities of Salinas and Guayama, Puerto Rico.

AMBIENTA INC. was contracted to conduct a wetland assessment within the 543-acre parcel (the Study Area) in order to identify potential wetland areas. This document represents the *Wetland Jurisdictional Determination and Delineation Study* for the AES Salinas B Photovoltaic Solar Project.

The methodology used for this study followed the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean Supplement, 2011). First, a preliminary screening process of existing literature and geographic information layers was performed to determine the potential jurisdictional wetlands at the Project site. Later, to specifically identify the potential wetland areas under the jurisdiction of Section 404 of the Clean Water Act regulated by the U.S. Army Corps of Engineers (USACE), a detailed screening analysis was performed using Geographic Information System (GIS) tools, global positioning system (GPS) equipment, LIDAR Topography, and data collected at the field by wetland specialists, environmental scientists, biologists and environmental technicians; this analysis was then interpreted under current regulations. The field reconnaissance and assessment were conducted during the month of April 2021.

During the past decade the Study Area was owned and occupied by DOW Agro Sciences Research and Development Parent Seed Facility (R & D Parent Seed Facility-Mycogen Seeds Corporation of Puerto Rico). For the development of the R & D Parent Seed Facility-Mycogen Seeds project, the former owner initiated and acquired the required regulatory Commonwealth and Federal permit and endorsement process, which required various mitigation actions. The land was recently acquired by AGRIART, LLC. A northern plot within the Study Area was observed recently tilled, but must areas are unmanaged. Abandonment of agriculture activities and other anthropogenic factors have influenced the actual condition of the Study Area.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

The National Wetlands Inventory (NWI) Maps from the USFWS classify most of the Study Area as wetlands. Based on Cowardin Classification System (1979), the NWI Maps classification is as follows: PFO3A (Palustrine, forested, broad-leaved evergreen, temporarily flooded), PEM1/SS3A (Palustrine, emergent, persistent/scrub shrub, broad-leaved evergreen, temporarily flooded), PEM1/FO3C (Palustrine, emergent, persistent/forested, broad-leaved evergreen, seasonally flooded), PEM1A (Palustrine, emergent, persistent, temporarily flooded) and PEM1/FO3C (Palustrine, emergent, persistent/forested, broad-leaved evergreen, seasonally flooded). These areas have being used as cropland for several decades and contain many drainage ditches as part of the best management practices for the agricultural activities.

The Study Area is located within the dry forest life zone. Based on the vegetative communities observed within the evaluated areas, the Study Area seems to be mostly dominated by uplands. Dominant plant species within the Study Area are: *Prosopis juliflora* (UPL), *Leucaena leucocephala* (FACU), *Pithecellobium dulcis* (FACU), *Malachra capitata* (FACU), *Cloris barbata* (FACU), *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU) *Sida acuta* (UPL), *Sida spinosa* (UPL), *Sida repens* (UPL) *Urena lobata* (FACU) *Digitaria eriantha* (FACU) and *Achyranthes aspera* (UPL). All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS).

For this study series of sampling points were established to measure or detect the three wetland criteria (hydrophytic vegetation, hydric soils and wetland hydrology) along representative areas. The locations of such sampling points was stratified along the Study Area and based on field observations and on the evaluation of historic aerial images and topographic maps to detect streams, saturation and storm water conveying areas; also documents of previous studies performed as part of the R & D Parent Seed/Mycogen Seeds Facility's environmental permitting and compliance process were evaluated.

Wetlands and upland areas were found within the Study Area. Upland areas are mostly dominated by the species: *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU), *Prosopis juliflora* (UPL) and *Achyranthes aspera* (UPL); while wetland areas are dominated by the species *Urochloa mutica* (FACW), *Cenchrus purpereum* (FAC), *Pithecellobium dulcis* (FACU) *Megathyrsus maximus* (FACU), *Cyperus involucratus* (OBL) and *Annona glabra* (OBL); the specimens of the *A. glabra* tree were planted as part of wetland mitigation actions associated to the R & D Parent Seed/Mycogen Seeds

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HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

Project. All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS).

Based on the evaluated historic aerial images from GoogleEarth®, it seems that during the rainy season and because of the flatness of the areas, stormwater tends to temporarily accumulate at lower elevation points, which then it is conveyed and drained out the Study Area through a series of drainage ditches observed along the cropland parcels. These drainage ditches were used as part of the agricultural best management practices. At some of these lower elevation points dead vegetation, that seems to be *Neptunia plena* (FACW), *Ludwigia sp.* (OBL), *Sida repens* (UPL), *Urena lobata* (FACU), *Digitaria eriantha* (FACU), *Desmanthus virgatus* (FACU) and *Achyranthes aspera* (UPL) were observed. It is assumed that the OBL and FACW vegetation potentially grew during a wetter period or during the rainy season. In some of these lower areas, the soils have natural low chroma, associated to the soil series, and probably not to hydric conditions; although some show marginal indicators of hydric soils with some redoximorphic features, this characteristic was generally observed in very low concentrations (<2%) and in most cases no redoximorphic features are present. No criteria for wetland hydrology were observed at most of the evaluated areas, the most common indicator was a secondary one consisting of *Surface Soil Cracks (B6).* At some points of the southeastern side of the Study Area the primary indicator *Algal Mat or Crust (B4)* was observed these areas receive water from the unnamed ephemeral creek with its channel disappear and ephemeral stormwater drains into them. At this point no hydric soil indicators were found.

Many irrigation stations were observed along most of the cropland areas, this suggest that the area tends to drain fast and agricultural activities are completely dependent of irrigation, probably even during the rainy season.

Three wetland areas, two previously documented and delineated as wetland as part of the R & D Parent Seed/Mycogen Seeds Facility environmental permitting process and a new one, were observed very dry, but met the three wetland criteria of hydrophytic vegetation, hydric soils and wetland hydrology. These wetland areas are as follows:

1. Wetland area associated to the Amorós Creek (an intermittent stream): This wetland area was previously delineated and determined to be under the jurisdiction of Section 404 of the Clean Water Act (CWA) as part of the R & D Parent Seed/Mycogen Seeds Facility's USACE Permit No. SAJ-2013-01054 (NW-CGR). It is located at the northwestern corner of the

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

Study Area and east of the Amorós Creek which crosses the Study Area from north to south and eventually discharges into a mangrove system associated to the Jobos Bay. At this site there is wetland mitigation project established as part of the R & D Parent Seed/Mycogen Seeds Facility's USACE Permit and as part of voluntary mitigation actions associated unauthorized wetland impacts. This site seems to be part of an established Conservation Easement, but this information must be confirmed.

2. Wetland area associated to an unnamed ephemeral creek: This wetland area was previously delineated and determined to be under the jurisdiction of Section 404 of the Clean Water Act (CWA) as part of the R & D Parent Seed/Mycogen Seeds Facility's USACE Permit. It is located at the northeastern corner of the Study Area and west of the unnamed creek, which crosses the Study Area through its center, from north to south until it dissipates within adjacent lots.
3. Wetland area associated to an unnamed ephemeral creek: This new wetland area wasn't delineated as part of the R & D Parent Seed/Mycogen Seeds Project. It is located north of the previously documented wetland area and associated to the same unnamed creek. There is no connection with its neighbor wetland area previously delineated and located to its south.

At all three wetland sites very dry conditions were observed during the assessment since it coincided with the dry season and wetland hydrology criteria was met by two secondary indicators: surface soil cracks (Indicator B6) and FAC-Neutral Test (Indicator D5).

Considering the degraded state of the habitat, regarding exotic vegetation, ecological functions and values of the aquatic resources within the Study Area seems to be limited. Very dry conditions were observed during site reconnaissance, including the stream (creeks) areas and wetlands, all completely dry. Some of their possible functions are: surface water storage, groundwater recharge, element transformation and cycling, dissolved substances retention and removal, and inorganic sediments accumulation. These functions serve somehow in reducing the impact from floodwaters, increasing sediment deposition, maintaining water quality, and replenishing the water supply. Limited wildlife use function and values were observed.

Final wetland delineation was performed using a combination of the three wetland criteria within the present vegetative community, selected sampling points, GPS measurements, vegetative cover observed at the site, and LIDAR topography overlaid over the aerial image.

AMBIENTA INC. TELS. (787) 510-7031 / (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com

The Wetland Jurisdictional Determination and Delineation Study conducted by **AMBIENTA INC.** shows that within the Project's limits there are RPW steams that are under the jurisdiction of Clean Water Act (CWA) Section 404 regulation; nevertheless there are also wetlands that may be classified as non-jurisdictional and excluded from CWA Section 404 regulation by being considered prior converted cropland (PCC) and in other instances drainage channels, ditches, swales or erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow) constructed over uplands. This conclusion is supported by the current regulation interpreting "waters of the United States" consistent with the pre-2015 regulatory regime.

On January 23, 2020, the Trump Administration issued the final Navigable Waters Protection Rule (NWPR), which redefines the federal definition of "waters of the United States" (WOTUS) under the Clean Water Act (CWA). The Environmental Protection Agency and U.S. Army Corps of Engineers (the agencies) in receipt of the U.S. District Court for the District of Arizona's August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule (NWP Rule) in the case of Pascua Yaqui Tribe v. U.S. Environmental Protection Agency, have halted implementation of the NWP Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice. This regulatory regime is based on Rapanos and SWANCC guidance.

In EPA's 1986/1988 Regulatory Definition of Waters of the United States it is expresses that: "*Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA*".

The 58 Federal Register 45008 - FR-1993-08-25 (August 25, 1993) states:

- "*As stated in the preamble to the proposal, we are excluding PC cropland from the definition of waters of the U.S. in order to achieve consistency in the manner that various federal programs address wetlands.*"
- "*In response to commentors who opposed the use of PC croplands for non-agricultural uses, the agencies note that today's rule centers only on whether an area is subject to the geographic scope of CWA jurisdiction. This determination of CWA jurisdiction is made regardless of the types or impacts of the activities that may occur in those areas. The agencies also note that today's rule will provide a mechanism for "recapturing" into Section 404 jurisdiction those PC croplands that revert back to wetlands where the PC cropland has been abandoned.*"

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

The U.S. Environmental Protection Agency (EPA) regulations states that prior converted cropland (PCC), which are lands that may have been wetlands and were converted to agricultural land prior to 1985 and that was active for agricultural use in the past 5 years is not under the jurisdiction of Section 404 of the Clean Water Act. Based on the revised historic aerial images and historic land use data and soil classification, the evaluated areas seem to be under that CWA exclusion since they could be classified as prior converted cropland.

Based on the 58 Federal Register 45008 - FR-1993-08-25 assumptions, the wetlands found within the Study Area may be considered non-jurisdictional and excluded from Section 404 of the CWA regulation.

In addition, the ephemeral drainage ditches and swales found, which did not met the three wetland criteria, are considered Non Relatively Permanent Waters (NRPW) and their jurisdiction under Section 404 of the CWA would be based in the determination of Significant Nexus. Significant Nexus (SNx) to Relatively Permanent Waters (RPW) should be established by agencies to determine their jurisdictional status since these areas abut to NRPW.

Based on the EPA and USACE Memorandum: Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States (December 02, 2008), this is addressed as follows:

"The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- *Non-navigable tributaries that are not relatively permanent.*
- *Wetlands adjacent to non-navigable tributaries that are not relatively permanent.*
- *Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.*

The agencies generally will not assert jurisdiction over the following features:

- *Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow).*
- *Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.*

The agencies will apply the significant nexus standard as follows:

- *A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they*

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.

- *Significant nexus includes consideration of hydrologic and ecologic factors."*

Based on the EPA-USACE Memorandum dated December 02, 2008, which its language is not definitive or final (e.g., ***agencies generally will not assert jurisdiction*)**, and even though the "*final jurisdictional determination of the evaluated non-navigable tributaries that are not relatively permanent waters and which consist of ditches, swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) would be decide by the agencies*", based on field observation these areas may be considered not under the jurisdiction of Section 404 of the CWA.

Even thou wetland areas adjacent to the Amorós Creek and to the unnamed stream may be considered non-jurisdictional based on its PCC status, two of them were previously classified as jurisdictional during the permitting process for the development of the R & D Parent Seed Facility/Mycogen Seeds facility and included within a conservation easement where wetland mitigation actions took place. It is unknown of which criteria were used to determine the CWA Section 404 jurisdiction over this area. These areas should be excluded from any future project development.

Impacts to wetlands can be avoided through comprehensive planning incorporating these areas within the Project design. Wetlands and U.S. Waters provide functions and possess attributes that may well enhance the Project's landscape and can offer areas for recreation and education, among other services.

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HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

INTRODUCTION

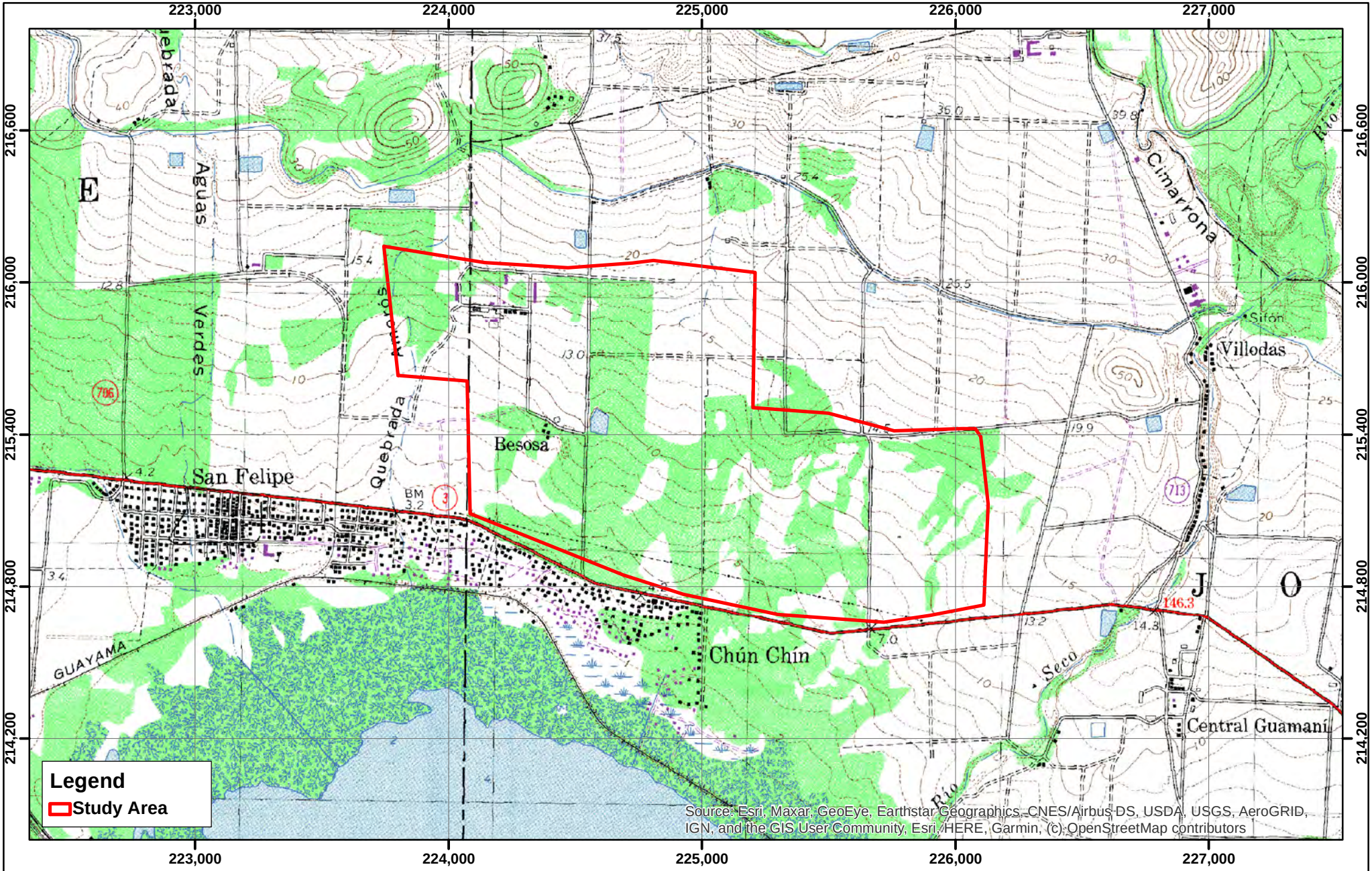
Clean Flexible Energy, LLC is exploring the viability of the construction of a Photovoltaic Solar System (the Project) to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA) within a parcel of land denominated as Salinas B and consisting of approximately 543 acres (2,197,210 square meters), between the Aguirre and Jobos wards of the Municipalities of Salinas and Guayama, Puerto Rico.

AMBIENTA INC. was contracted to conduct a wetland jurisdictional determination study within the Project parcel (the Study Area). This document represents the *Wetland Jurisdictional Determination and Delineation Study* (JD) for the Photovoltaic Solar System Project.

The methodology used for this study followed the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean Supplement, 2011). First, a preliminary screening process of existing literature and geographic information layers was performed to determine the potential jurisdictional wetlands at the Project site. Later, to specifically identify the potential wetland areas inside the Project limits included under the jurisdiction of Section 404 of the Clean Water Act or under the jurisdiction of Section 10 of the Rivers and Harbors Act regulated by the U.S. Army Corps of Engineers (USACE), a detailed screening analysis was performed using Geographic Information System (GIS) tools, global positioning system (GPS) equipment, data collected at the field by wetland specialists, environmental scientists, biologists and environmental technicians and interpretation of the current regulations. The field reconnaissance and assessment were conducted during the month of June 2021.

This report is organized in four (4) sections: 1) site description, 2) methodology and technical approach, 3) results and discussion, and 4) conclusions and recommendations. The results and conclusions of this Study are supported by the Wetland Determination Data Forms and the Photographic Documentation presented in the appendices of this report.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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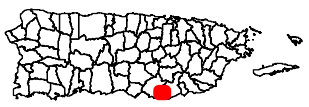


Figure 1: USGS Location Map

AES Salinas - PV, Salinas, P.R.

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SITE DESCRIPTION

Site description is essential to properly assess the attributes of the Study Area and most importantly, to confirm the presence of jurisdictional wetlands within its limits. This information, combined with a detailed field investigation and analysis that takes into account the three (3) jurisdictional wetland criteria (presence of hydrophytic vegetation, wetland hydrology and hydric soils), is fundamental in the determination of jurisdictional wetlands. This section of the report contains various figures in order to supplement the site description.

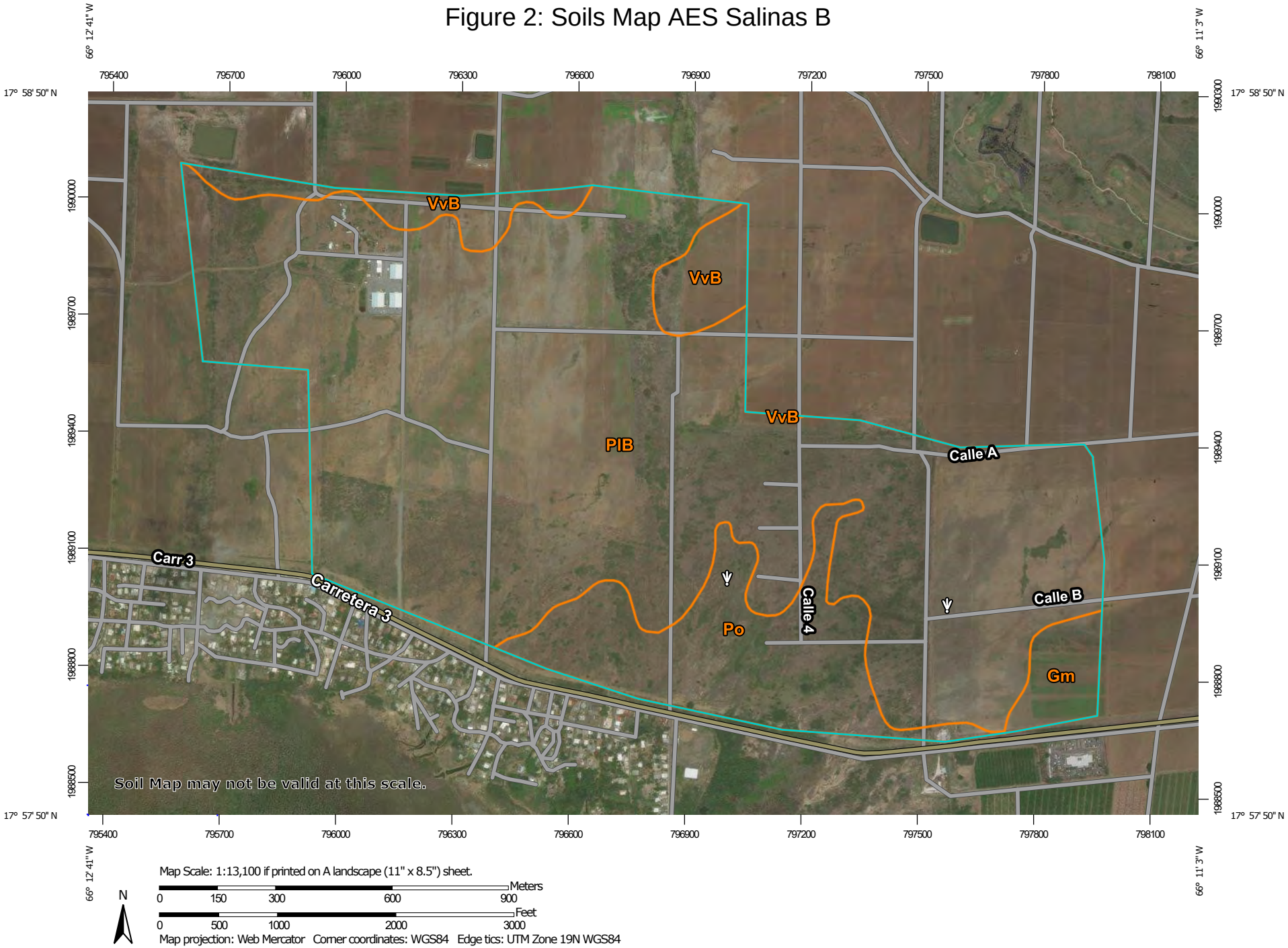
Location and Topography: The Study Area, consisting of approximately 543 acres (2,197,210 square meters), between the Aguirre and Jobos wards of the Municipalities of Salinas and Guayama, Puerto Rico (PR Datum Nad 83 Lat/Log coordinates: 17.9736551°, -66.1974693°). Its topography is mostly flat with elevation fluctuating from 5 to 20 meters amsl. **Figure 1** (see previous page) shows the USGS Topographic Quadrangle with the location of the area.

Vegetative communities: The larger dominant vegetative communities within the Study Area consist of unmanaged herbaceous areas (upland and wetlands), scrub-shrub, tilled areas, planted areas and scatter forested areas associated to streams. The Study Area was recently occupied by the former R & D Parent Seed/Mycogen Seeds facility. Currently the land is owned by AGRIART, LLC. Some crop plots within the Study Area were observed recently tilled, some are planted, but must areas are unmanaged. Abandonment of agriculture activities and other anthropogenic factors have influenced the actual condition of vegetative communities at the Study Area. Upland areas are mostly dominated by the species: *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU), Prosopis juliflora (UPL) and *Achyranthes aspera* (UPL); while wetland areas are dominated by the species *Urochloa mutica* (FACW), *Cenchrus purpereum* (FAC), *Pithecellobium dulcis* (FACU), *Megathyrsus maximus* (FACU), *Cyperus involucratus* (OBL) and *Annona glabra* (OBL); t the specimens of the *A. glabra* tree were planted as part of wetland mitigation actions associated to the R & D Parent Seed/Mycogen Seeds Project. All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the USFWS.

Soils: Based on the Soil Survey of the Humacao Area of Eastern Puerto Rico from the U.S. Department of Agriculture Soil Conservation Service, the Study Area contains four (4) soil types: Pasto Seco clay series (PIB), Vives clay series (VvB), Poncena clay series (Po) and Guamaní silty clay series (Gm). **Figure 2** include the NRCS Soil Map.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

Figure 2: Soils Map AES Salinas B



- **Paso Seco clay (PIB):** This soil is on terraces and alluvial fans in the semiarid region. The soil's high shrink well potential and poor workability are limitations for farming, and the climate in the area is adverse. This soil commonly has been used for pasture. If irrigated, the soil is suited to sugarcane, pasture and cut grasses.

- **Vives clay (VvB**): This soil is on alluvial fans and terraces in the semiarid area. This soil has moderate limitations for farming because of low rainfall, slope, and the hazard of erosion. If it is irrigated the soil is suited to many kinds of food crops and to sugarcane.

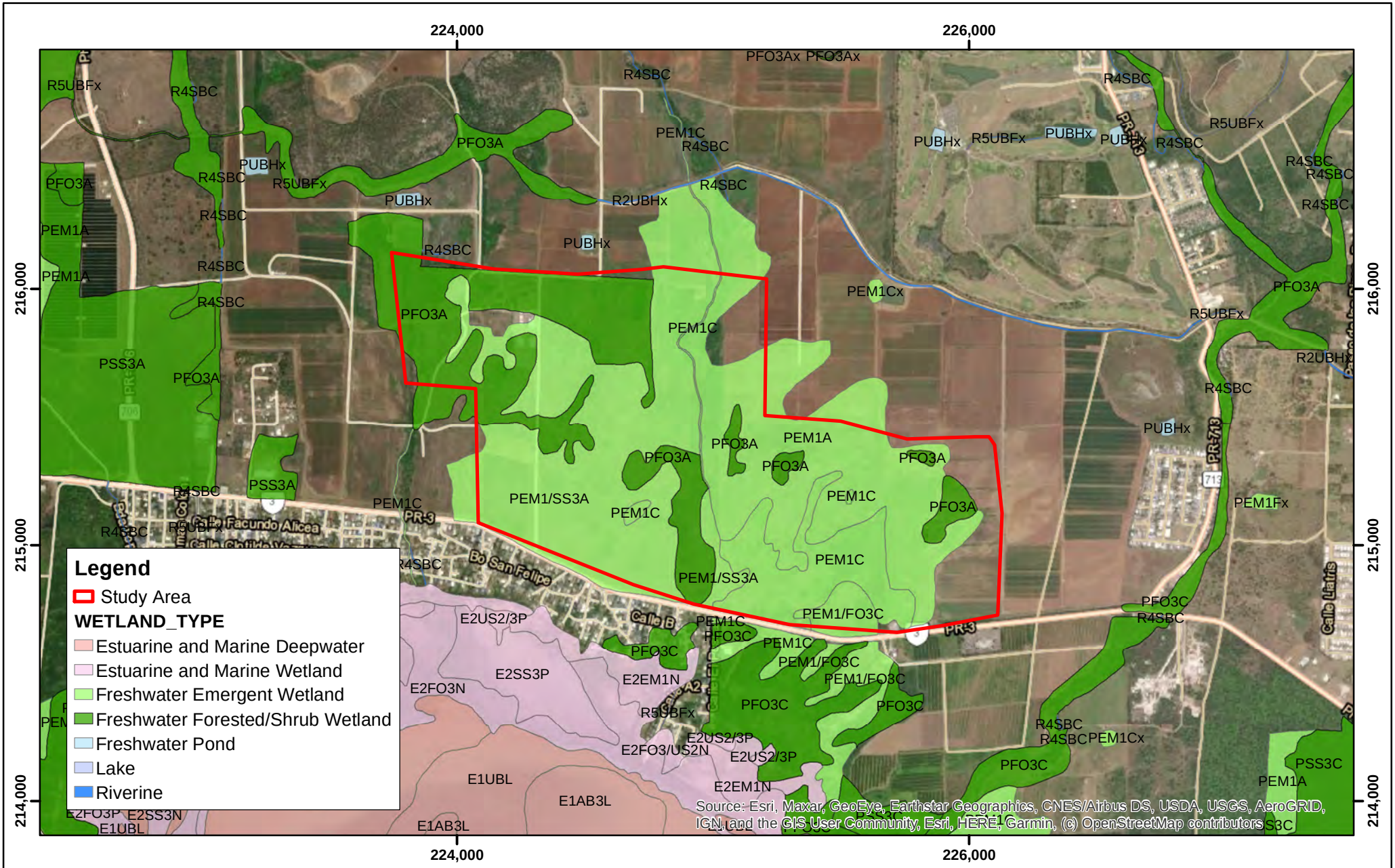
- **Poncena clay (Po):** These are almost level soils on the coastal plains. They have slow permeability with moderate to good drainage and a high water capacity. They are medium-fertility soils that are difficult to work with. They have been used for the planting of sugar cane and pasture.

- **Guamaní silty clay (Gm):** Almost level soils in the floodplains of rivers. They are of good drainage and fast permeability; with low water capacity and medium runoff. They are soils of high fertility and easy to work. They have limitations for agriculture due to their low water capacity. If they are irrigated they can be used for the planting of sugarcane and pasture.

Aquatic resources: The Patillas Irrigation Channel crosses to the north from east to west outside the Study Area. The Amorós creek crosses the study area at the west part. An unnamed ephemeral creek crosses the study area at the center and flows from north to south. In addition, several drainage channels used as part of the agricultural activities best management practices were observed within the Study Area.

The National Wetlands Inventory (NWI) Maps from the USFWS classify most areas as wetlands. Based on Cowardin Classification System (1979), the NWI Maps classification is as follows: PFO3A (Palustrine, forested, broad-leaved evergreen, temporarily flooded), PEM1/SS3A (Palustrine, emergent, persistent/scrub shrub, broad-leaved evergreen, temporarily flooded), PEM1A (Palustrine, emergent, persistent, temporarily flooded), PEM1C (Palustrine, emergent, persistent, seasonally flooded) and PEM1/FO3C (Palustrine, emergent, persistent/forested, broad-leaved evergreen, seasonally flooded). **Figure 3** shows the NWI Map.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
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Figure 3: NWI Map

AES-Salinas-B PV, Salinas, P.R.

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Date: 4/14/2021

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TECHNICAL APPROACH AND METHODOLOGY

A four-phase approach was used for the Wetland Jurisdictional Determination and Delineation Study (JD) performed for the Project. The technical approach followed the determination method described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean supplement, 2011).

During Phase 1 of the Study, a screening level analysis was performed to identify those areas within the Project regarded as potential jurisdictional wetlands under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The screening level analysis was performed using a Geographic Information System (GIS) loaded with the following data:

- Topography;
- Soil Survey;
- National Wetland Inventory (NWI) Map;
- Flood Zones and Hydrography;
- Aerial Photographs; and,
- Lidar topography.

The results from this phase of the investigation provided specific and important information for the design of the field reconnaissance and data collection effort.

Phase 2 of the Study consisted of a series of preliminary site visits, including the inspection of the previously identified, potential wetland areas. These visits helped validate data that was gathered during the previous phase, while also contributing to a better understanding of the environmental conditions at the Study Area in order to develop a fieldwork plan. **Appendix A** includes photographic documentation of the Study Area.

Phase 3 of the Study included the field visits to delineate any and all jurisdictional wetlands within the Study Area. This included a description of hydrology, soil and dominant vegetation at representative sampling locations.

Final wetland delineation was performed using a combination of the three wetland criteria within the present vegetative community, selected sampling points, GPS measurements, vegetative communities observed during field assessment, LIDAR topography and identified over aerial images of the site.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
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Each sampling location description is included in an individual Wetland Determination Data Form. **Appendix B** includes the transcripts of the Wetland Determination Data Forms from the Caribbean Supplement of the Wetland Delineation Manual.

The following tasks were carried out during this phase:

- Establishment of sampling transects;
- Visual inspection of the site and, identification of landscape features;
- Identification of plant communities;
- Selection of a representative area within each plant community to establish a sampling point and dig a soil pit;
- Identification of dominant plant species from the various strata around the soil pit;
- Classification of plant species using the *2014 Revision to the National List of Plants Species that Occur in Wetlands: Caribbean (Region C)*;
- Description of hydrology within and around the soil pit;
- Soil characterization using the Munsell Soil Color Chart;
- Fill in gathered data for each sampling point on the Wetland Determination Data Form from the Caribbean Supplement of the Wetland Delineation Manual; National Wetland Inventory (NWI) Map;
- Photographic documentation of the Site, soil pit and surrounding vegetation; and,
- Field delineation of wetland areas using the aerial photographs, handheld Global Positioning System (GPS) and lidar topography.

For the purposes of this Study, twenty seven (27) sampling points were established along the Study Area. If wetlands were present, its limits were recorded with GPS and using as reference the observed change in vegetation over the aerial image. All areas were accessed and inspected in detail by walking and by UTV.

Phase 4 of the Study comprised the final analysis of data gathered during the inspection and delineation visits, and the drafting of this Wetland Jurisdictional Determination and Delineation Report. Final wetland boundary determination was based on the combination of all the available evidence. The field reconnaissance and assessment efforts for this Study were conducted within the period of April 7 to June 3, 2021.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
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RESULTS AND CONCLUSION

The Study Area is located within the dry forest life zone. Based on the vegetative communities observed within the evaluated areas, the Study Area, which consists of cropland plots seems to be mostly dominated by uplands. Dominant plant species within the Study Area are: *Prosopis juliflora* (UPL), *Leucaena leucocephala* (FACU), *Pithecellobium dulcis* (FACU), *Malachra capitata* (FACU), *Cloris barbata* (FACU), *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU) *Sida acuta* (UPL), *Sida spinosa* (UPL), *Sida repens* (UPL) *Urena lobata* (FACU) *Digitaria eriantha* (FACU) and *Achyranthes aspera* (UPL). All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS).

Field reconnaissance and analysis reveal that the two wetlands found within the Study Area may be classified as prior converted cropland. Based on the Cowardin classification system, these areas may be classified as: 1) PEM1/SS1Cd (Palustrine, emergent, persistent/scrub shrub, broad-leaved, deciduous, seasonally flooded, partially drained/ditched) associated to the Amorós Creek and to the unnamed ephemeral creek; and 2) PEM1C associated to the unnamed ephemeral creek, (Palustrine, emergent, persistent, seasonally flooded, partially drained/ditched).

For this study series of sampling points were established to measure or detect the three wetland criteria (hydrophytic vegetation, hydric soils and wetland hydrology) along representative areas. The locations of such sampling points was stratified along the Study Area and based on field observations and on the evaluation of historic aerial images and topographic maps to detect streams, saturation and storm water conveying areas; also documents of previous studies performed as part of the R & D Parent Seed/Mycogen Seeds Facility's environmental permitting and compliance process were evaluated. **Appendix A** contains photographic documentation of the Study Area.

Wetlands and upland areas were found within the Study Area. Upland areas are mostly dominated by the species: *Chloris radiata* (FACU), *Megathyrsus maximus* (FACU), Prosopis juliflora (UPL) and *Achyranthes aspera* (UPL); while wetland areas are dominated by the species *Urochloa mutica* (FACW), *Cenchrus purpereum* (FAC), *Pithecellobium dulcis* (FACU) *Megathyrsus maximus* (FACU), *Cyperus involucratus* (OBL) and *Annona glabra* (OBL); the specimens of the *A. glabra* tree were planted as part of wetland mitigation actions associated to the R & D Parent Seed/Mycogen Seeds

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Project. All of these species classification are based on the 2016 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS).

Of a total of twenty seven (27) sampling points (see **Appendix B**), two (2) met the three wetland criteria and are within seasonally flooded wetland areas. **Table 1** summarizes the Jurisdictional Wetland Criteria that each one of the twenty seven (27) sampling points met and the final decision on whether the area should be considered or not as a wetland. Sampling Points, jurisdictional streams and wetland areas are shown in **Figure 4**.

TABLE 1: WETLAND CRITERIA STATUS FOR THE SAMPLING POINTS.

SP ID	Latitude	Longitude	Hydrophytic Vegetation	Hydric Soil	Wetland Hydrology	Wetland Determination (Potentially Non-Jurisdictional)
SP01	17.976706	-66.198042	Yes	Yes	Yes	Yes
SP02	17.976491	-66.196439	No	No	Yes	No
SP03	17.978176	-66.197636	Yes	Yes	Yes	Yes
SP04	17.967680	-66.186684	No	No	No	No
SP05	17.966385	-66.186831	No	No	No	No
SP06	17.969427	-66.204823	No	No	No	No
SP07	17.969296	-66.203543	No	No	No	No
SP08	17.974543	-66.204778	No	No	No	No
SP09	17.970301	-66.205049	No	No	No	No
SP10	17.972202	-66.205207	No	No	No	No
SP11	17.975460	-66.206401	No	No	No	No
SP12	17.971514	-66.20203	Yes	No	No	No
SP13	17.970404	-66.198434	Yes	No	No	No
SP14	17.974801	-66.198105	No	No	No	No
SP15	17.975668	-66.200547	Yes	No	No	No
SP16	17.977569	-66.198022	No	No	No	No
SP17	17.978200	-66.197884	No	No	No	No
SP18	17.978368	-66.198838	No	No	No	No
SP19	17.972018	-66.195737	No	No	No	No
SP20	17.970298	-66.195979	No	No	Yes	No
SP21	17.970635	-66.191872	No	No	No	No
SP22	17.966918	-66.196781	No	No	Yes	No
SP23	17.967031	-66.192659	No	No	No	No
SP24	17.971840	-66.190102	No	No	No	No
SP25	17.968178	-66.199385	No	No	No	No
SP26	17.974193	-66.196539	No	No	No	No
SP27	17.977401	-66.205318	Yes	No	No	No

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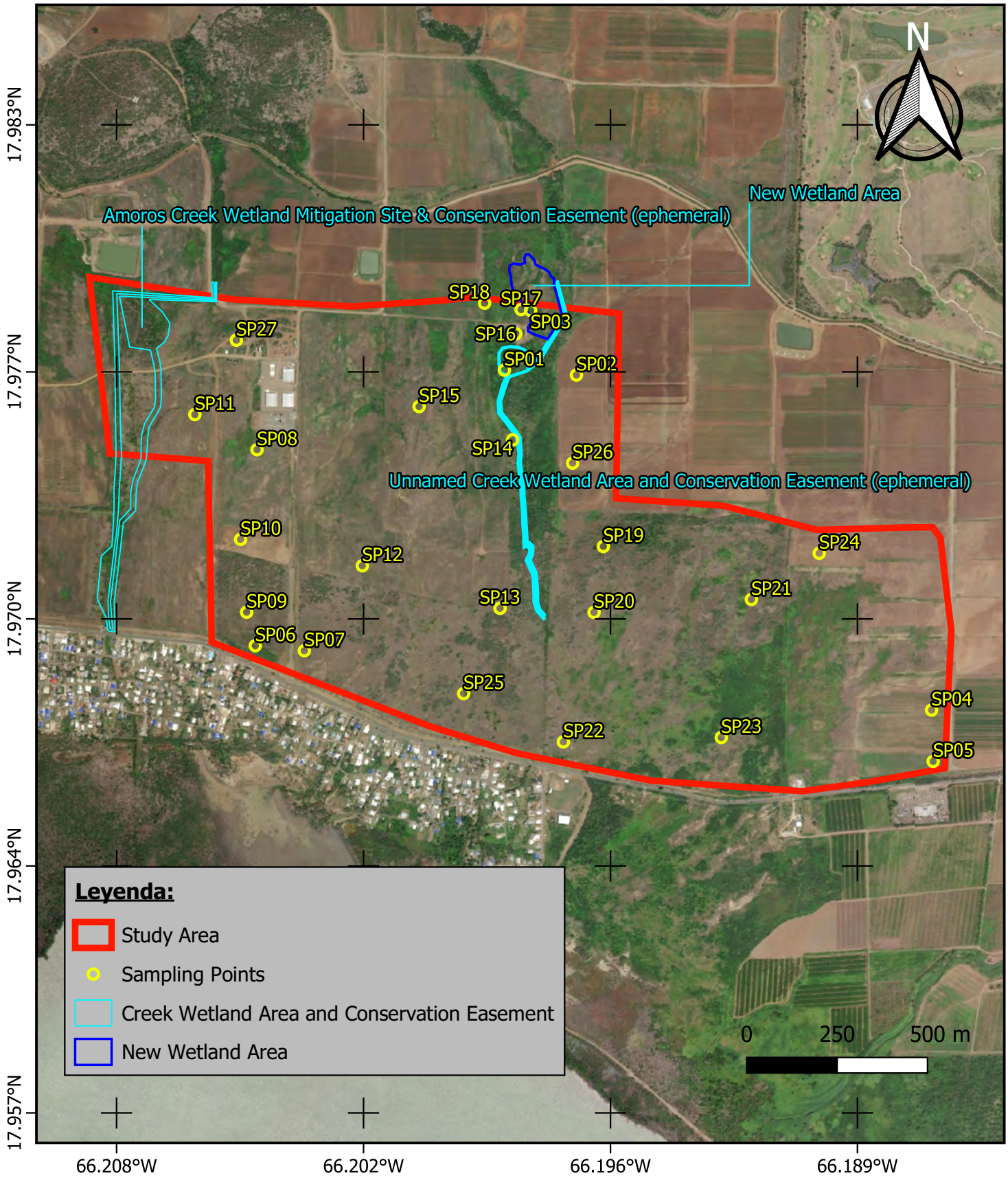


Figure 4: Wetland Delineation Map (Potentially Non-Jurisdictional)
AES-Salinas B, Salinas, P.R.

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Based on the evaluated historic aerial images from GoogleEarth®, it seems that during the rainy season and because of the flatness of the areas, stormwater tends to temporarily accumulate at lower elevation points, which then it is conveyed and drained out the Study Area through a series of drainage ditches observed along the cropland parcels. These drainage ditches were used as part of the agricultural best management practices. At some of these lower elevation points dead vegetation, that seems to be *Neptunia plena* (FACW), *Ludwigia sp.* (OBL), *Sida repens* (UPL), *Urena lobata* (FACU), *Digitaria eriantha* (FACU), *Desmanthus virgatus* (FACU) and *Achyranthes aspera* (UPL) were observed. It is assumed that the OBL and FACW vegetation potentially grew during a wetter period or during the rainy season. In some of these lower areas, the soils have natural low chroma, associated to the soil series, and probably not to hydric conditions; although some show marginal indicators of hydric soils with some redoximorphic features, this characteristic was generally observed in very low concentrations (<2%) and in most cases no redoximorphic features are present. No criteria for wetland hydrology were observed at most of the evaluated areas, the most common indicator was a secondary one consisting of *Surface Soil Cracks (B6).* At some points of the southeastern side of the Study Area the primary indicator *Algal Mat or Crust (B4)* was observed these areas receive water from the unnamed ephemeral creek with its channel disappear and ephemeral stormwater drains into them. At this point no hydric soil indicators were found.

Many irrigation stations were observed along most of the cropland areas, this suggest that the area tends to drain fast and agricultural activities are completely dependent of irrigation, probably even during the rainy season.

Three wetland areas, two previously documented and delineated as wetland as part of the R & D Parent Seed/Mycogen Seeds Facility environmental permitting process and a new one, were observed very dry, but met the three wetland criteria of hydrophytic vegetation, hydric soils and wetland hydrology. These wetland areas are as follows:

1. Wetland area associated to the Amorós Creek (an intermittent stream): This wetland area was previously delineated and determined to be under the jurisdiction of Section 404 of the Clean Water Act (CWA) as part of the R & D Parent Seed/Mycogen Seeds Facility's USACE Permit No. SAJ-2013-01054 (NW-CGR). It is located at the northwestern corner of the Study Area and east of the Amorós Creek which crosses the Study Area from north to south and eventually discharges into a mangrove system associated to the Jobos Bay. At this site

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there is wetland mitigation project established as part of the R & D Parent Seed/Mycogen Seeds Facility's USACE Permit and as part of voluntary mitigation actions associated unauthorized wetland impacts. This site seems to be part of an established Conservation Easement, but this information must be confirmed.

2. Wetland area associated to an unnamed ephemeral creek: This wetland area was previously delineated and determined to be under the jurisdiction of Section 404 of the Clean Water Act (CWA) as part of the R & D Parent Seed/Mycogen Seeds Facility's USACE Permit. It is located at the northeastern corner of the Study Area and west of the unnamed creek, which crosses the Study Area through its center, from north to south until it dissipates within adjacent lots.
3. Wetland area associated to an unnamed ephemeral creek: This new wetland area wasn't delineated as part of the R & D Parent Seed/Mycogen Seeds Project. It is located north of the previously documented wetland area and associated to the same unnamed creek. There is no connection with its neighbor wetland area previously delineated and located to its south.
4. At all three wetland sites very dry conditions were observed during the assessment since it coincided with the dry season and wetland hydrology criteria was met by two secondary indicators: surface soil cracks (Indicator B6) and FAC-Neutral Test (Indicator D5).

At all three wetland sites very dry conditions were observed during the assessment since it coincided with the dry season and wetland hydrology criteria was met by two secondary indicators: surface soil cracks (Indicator B6) and FAC-Neutral Test (Indicator D5).

Considering the degraded state of the habitat, regarding exotic vegetation, ecological functions and values of the aquatic resources within the Study Area seems to be limited. Very dry conditions were observed during site reconnaissance, including the stream (creeks) areas and wetlands, all completely dry. Some of their possible functions are: surface water storage, groundwater recharge, element transformation and cycling, dissolved substances retention and removal, and inorganic sediments accumulation. These functions serve somehow in reducing the impact from floodwaters, increasing sediment deposition, maintaining water quality, and replenishing the water supply. Limited wildlife use function and values were observed.

The Wetland Jurisdictional Determination and Delineation Study conducted by **Ambienta Inc.** shows that within the Project's limits there are RPW steams that are under the jurisdiction of Clean

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Water Act (CWA) Section 404 regulation; nevertheless there are also wetlands that may be classified as non-jurisdictional and excluded from CWA Section 404 regulation by being considered prior converted cropland (PCC) and in other instances drainage channels, ditches, swales or erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow) constructed over uplands. This conclusion is supported by the current regulation interpreting "waters of the United States" consistent with the pre-2015 regulatory regime.

On January 23, 2020, the Trump Administration issued the final Navigable Waters Protection Rule (NWPR), which redefines the federal definition of "waters of the United States" (WOTUS) under the Clean Water Act (CWA). The Environmental Protection Agency and U.S. Army Corps of Engineers (the agencies) in receipt of the U.S. District Court for the District of Arizona's August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule (NWP Rule) in the case of Pascua Yaqui Tribe v. U.S. Environmental Protection Agency, have halted implementation of the NWP Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice. This regulatory regime is based on Rapanos and SWANCC guidance.

In EPA's 1986/1988 Regulatory Definition of Waters of the United States it is expresses that: "*Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA*".

The 58 Federal Register 45008 - FR-1993-08-25 (August 25, 1993) states:

- "*As stated in the preamble to the proposal, we are excluding PC cropland from the definition of waters of the U.S. in order to achieve consistency in the manner that various federal programs address wetlands.*"
- "*In response to commentors who opposed the use of PC croplands for non-agricultural uses, the agencies note that today's rule centers only on whether an area is subject to the geographic scope of CWA jurisdiction. This determination of CWA jurisdiction is made regardless of the types or impacts of the activities that may occur in those areas. The agencies also note that today's rule will provide a mechanism for "recapturing" into Section 404 jurisdiction those PC croplands that revert back to wetlands where the PC cropland has been abandoned.*"

The U.S. Environmental Protection Agency (EPA) regulations states that prior converted cropland (PCC), which are lands that may have been wetlands and were converted to agricultural land prior to

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1985 and that was active for agricultural use in the past 5 years is not under the jurisdiction of Section 404 of the Clean Water Act. Based on the revised historic aerial images and historic land use data and soil classification, the evaluated areas seem to be under that CWA exclusion since they could be classified as prior converted cropland.

Based on the 58 Federal Register 45008 - FR-1993-08-25 assumptions, the wetlands found within the Study Area may be considered non-jurisdictional and excluded from Section 404 of the CWA regulation.

In addition, the ephemeral drainage ditches and swales found, which did not met the three wetland criteria, are considered Non Relatively Permanent Waters (NRPW) and their jurisdiction under Section 404 of the CWA would be based in the determination of Significant Nexus. Significant Nexus (SNx) to Relatively Permanent Waters (RPW) should be established by agencies to determine their jurisdictional status since these areas abut to NRPW.

Based on the EPA and USACE Memorandum: Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States (December 02, 2008), this is addressed as follows:

"The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- *Non-navigable tributaries that are not relatively permanent.*
- *Wetlands adjacent to non-navigable tributaries that are not relatively permanent.*
- *Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.*

The agencies generally will not assert jurisdiction over the following features:

- *Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow).*
- *Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.*

The agencies will apply the significant nexus standard as follows:

- *A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.*
- *Significant nexus includes consideration of hydrologic and ecologic factors."*

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Based on the EPA-USACE Memorandum dated December 02, 2008, which its language is not definitive or final (e.g., ***agencies generally will not assert jurisdiction*)**, and even though the "*final jurisdictional determination of the evaluated non-navigable tributaries that are not relatively permanent waters and which consist of ditches, swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) would be decide by the agencies*", based on field observation these areas may be considered not under the jurisdiction of Section 404 of the CWA.

Even thou wetland areas adjacent to the Amorós Creek and to the unnamed stream may be considered non-jurisdictional based on its PCC status, two of them were previously classified as jurisdictional during the permitting process for the development of the R & D Parent Seed Facility/Mycogen Seeds facility and included within a conservation easement where wetland mitigation actions took place. It is unknown of which criteria were used to determine the CWA Section 404 jurisdiction over this area. These areas should be excluded from any future project development.

Impacts to wetlands can be avoided through comprehensive planning incorporating these areas within the Project design. Wetlands and U.S. Waters provide functions and possess attributes that may well enhance the Project's landscape and can offer areas for recreation and education, among other services.

Final wetland delineation was performed using a combination of the three wetland criteria within the present vegetative community, selected sampling points, GPS measurements and vegetative cover observed at the site, and LIDAR topography overlaid over the aerial image. Wetland and uplands areas were found during the site reconnaissance, assessment and jurisdictional wetland determination and delineation field visits. Several water management structures were observed within the Study Area, including drainage ditches, culverts, water control structures, irrigation structures and channels between others.

The Study Area was recently occupied by the former R & D Parent Seed/Mycogen Seeds Facility. As part of the seed facility project development and environmental compliance with Law 241 of August 15, 1999, to establish the New Wildlife Law of Puerto Rico, some areas were designated as Conservation Easement in favor of the Department of Natural and Environmental Resources of Puerto Rico. These easements consist of areas occupied by

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streams, canals, wetlands, a wetland mitigation parcel and hills; some of these areas are within the Study Area and others outside. Such areas should be outside the development footprint of any future project. It is recommended to obtain the official registration plan of the plots designated as Conservation Easement to ensure their protection and as a tool for the design and planning of the project.

Impacts to wetlands can be avoided through comprehensive planning incorporating these areas within the Project design. Wetlands and U.S. Waters provide functions and possess attributes that may well enhance the Project's landscape and can offer areas for recreation and education, among other services.

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TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

APPENDIXES

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APPENDIX A:

PHOTOGRAPHIC DOCUMENTATION

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Typical view of an upland area.



Typical view of soybean cropland area.

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Soil evaluation at cropland area, very low natural chroma.



Typical view of very dry conditions and dead vegetation at the site.

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Soil pit at upland area.



Soil sample at upland area.

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Soil pit at wetland area Sampling Point SP-01.



Soil evaluation at wetland area Sampling Point SP-01.

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Typical view of surrounding vegetation within wetland area at SP-1.



Typical view of upland area at SP-20; area get flooded (algal crust) during heavy rain events.

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APPENDIX B:

TRANSCRIPTS OF SAMPLING POINT DATA FORMS FOR ROUTINE WETLAND DETERMINATION

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WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-01

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.97662° Long: -66.19826° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Wetland assessment point located at potential wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pithecellobium dulce	50	Yes	FACU
2.			
3.			
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Cenchrus purpureus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species 100	x 3 =	300
FACU species 50	x 4 =	200
UPL species _____	x 5 =	_____
Column Totals: 150 (A)		500 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions.

SOIL

Sampling Point: SP-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 3/1	70	2.5YR 4/6	30			Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Oxidized Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☑ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions, surface soil cracks.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-02

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.976491° Long: -66.196439° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Wetland assessment point located at potential wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions.

SOIL

Sampling Point: SP-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☑ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No hydrology indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-03

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.978176° Long: -66.197636° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Wetland assessment point located at potential wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Ipomoea tiliacea	5	No	UPL
2. Mikania micrantha	5	No	UPL
3. Megathyrsus maximus	15	Yes	FACU
4. Cyperus involucratus	20	Yes	OBL
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	15	x 4 =	60
UPL species	10	x 5 =	50
Column Totals:	75 (A)		130 (B)

Prevalence Index = B/A = 1.73

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 2/2		5YR 5/6	50			Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-04

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.968902° Long: -66.187245° Datum: PR Datum

Soil Map Unit Name: Vives clay (VvB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X Hydric Soil Present? Yes _____ No X Wetland Hydrology Present? Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

No vegetation. Tiled area ready for planting.

SOIL

Sampling Point: SP-04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-05

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.966385° Long: -66.186831° Datum: PR Datum

Soil Map Unit Name: Guamani silty clay loam (Gm) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Desmanthus virgatus	30	Yes	FACW
2. Megathyrsus maximus	30	Yes	FACU
3. Cleoserrata speciosa	10	No	NI
4.			
5.			
6.			
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	30	x 2 =	60
FAC species	_____	x 3 =	_____
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column Totals:	70 (A)		230 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-06

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.969427° Long: -66.204823° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Leucaena leucocephala	80	Yes	FACU
2.			
3.			
4.			
5.			
	80	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	45	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 125	x 4 = 500
UPL species 20	x 5 = 100
Column Totals: 145 (A)	600 (B)

Prevalence Index = B/A = 4.14

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-07

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.969296° | Long: -66.203543° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Chloris barbata	30	Yes	FACU
2. Megathyrsus maximus	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	20	x 5 =	100
Column Totals:	120 (A)		500 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-08

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.974543° Long: -66.204778° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PFO3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris barbata	20	Yes	FACU
2. Megathyrsus maximus	80	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 100	x 4 =	400
UPL species	x 5 =	
Column Totals: 100 (A)		400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/2						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-09

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.970301° | Long: -66.205049° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	30	Yes	UPL
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	40	Yes	FACU
2. Sporobolus virginicus	20	Yes	FACW
3. Sida urens	20	Yes	NI
4. Achyranthes aspera	20	Yes	UPL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	20	x 2 =	40
FAC species		x 3 =	
FACU species	40	x 4 =	160
UPL species	70	x 5 =	350
Column Totals:	130 (A)		550 (B)

Prevalence Index = B/A = 4.23

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-09

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3		2.5YR 4/6	1	D	M	Silty Clay	Silty Clay with Crumble Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Redoxymorphic feature could be a soil inclusion.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-10

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.970301° Long: -66.205049° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Sida urens	20	Yes	NI
2. Chloris sp	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	20	x 4 =	80
UPL species	20	x 5 =	100
Column Totals:	40 (A)		180 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3		2.5YR 4/6	1	C	PL	Silty Clay	Silty Clay with Crumble Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-11

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.97546° Long: -66.206401° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Sida urens	20	Yes	NI
2. Chloris sp	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	20	x 4 =	80
UPL species	20	x 5 =	100
Column Totals:	40 (A)		180 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3						Silty Clay	Silty Clay with Crumble Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-12

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.971514° | Long: -66.20203° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Ludwigia sp	80	Yes	OBL
2. Achyranthes aspera	20	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	20	x 5 =	100
Column Totals:	100 (A)		180 (B)

Prevalence Index = B/A = 1.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3						Silty Clay	Silty Clay with Crumble Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-13

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.970404° | Long: -66.198434° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PFO3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Ludwigia sp	50	Yes	OBL
2. Achyranthes aspera	25	Yes	UPL
3. Sida urens	25	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	50	x 5 =	250
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3						Silty Clay	Silty Clay with Crumble Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-14

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.974801° | Long: -66.198105° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	15	Yes	UPL
2. Pithecellobium dulce	10	Yes	FACU
3.			
4.			
5.			
	25	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2. Sesbania sericea	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	20	x 2 =	40
FAC species	_____	x 3 =	_____
FACU species	90	x 4 =	360
UPL species	15	x 5 =	75
Column Totals:	125 (A)		475 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 2/1						Silty Loam	
3 - 18	7.5YR 4/4						Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-15

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.975668° | Long: -66.200547° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PFO3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Sporobolus virginicus	50	Yes	FACW
2. Chloris sp	50	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 50	x 2 =	100
FAC species	x 3 =	
FACU species 50	x 4 =	200
UPL species	x 5 =	
Column Totals: 100 (A)		300 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3						Silty Clay	Silty Clay with Crumble Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-16

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.977569° | Long: -66.198022° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pithecellobium dulce	50	Yes	FACU
2.			
3.			
4.			
5.			
	50 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Leucaena leucocephala	20	Yes	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 170	x 4 = 680
UPL species _____	x 5 = _____
Column Totals: 170 (A)	300 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-17

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.9782° Long: -66.197884° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/4						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-18

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.978368° Long: -66.198838° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Samplng Point located within a soybean plantation with an irrigation system.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Glycine max	100	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 100	x 5 = 500
Column Totals: 100 (A)	500 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 3/1						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No Redox features.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-19

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.972018° | Long: -66.195737° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	20	x 5 =	100
Column Totals:	120 (A)		500 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-20

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.970298° | Long: -66.195979° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris sp	30	Yes	FACU
2. Sporobolus virginicus	10	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	10	x 2 =	20
FAC species		x 3 =	
FACU species	30	x 4 =	120
UPL species		x 5 =	
Column Totals:	40 (A)		140 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/6						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. Dead Algae mat. This area seems to receive runoff from the ephemeral creek located west.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-21

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.970635° | Long: -66.191872° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	10	Yes	UPL
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 80	x 4 = 320
UPL species 10	x 5 = 50
Column Totals: 90 (A)	370 (B)

Prevalence Index = B/A = 4.11

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/6						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-22

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.966918° | Long: -66.196781° | Datum: PR Datum

Soil Map Unit Name: Poncena clay (Po): | NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris sp	40	Yes	FACU
2. Chloris radiata	40	Yes	FACU
3. Sporobolus virginicus	10	No	FACW
4. Steinchisma laxa	10	No	FACW
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	20	x 2 =	40
FAC species		x 3 =	
FACU species	80	x 4 =	320
UPL species		x 5 =	
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/4						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. Dead Algae mat.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-23

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.967031° | Long: -66.192659° | Datum: PR Datum

Soil Map Unit Name: Poncena clay (Po): | NWI classification: PEM1/FO3C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	10	Yes	UPL
2.			
3.			
4.			
5.			
	10 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	80	x 4 =	320
UPL species	10	x 5 =	50
Column Totals:	90 (A)		370 (B)

Prevalence Index = B/A = 4.11

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/6						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-24

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.97184 ° Long: -66.190102° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Desmanthus virgatus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 3/2						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No Redox features.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-25

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.968178° | Long: -66.199385° | Datum: PR Datum

Soil Map Unit Name: Poncena clay (Po): | NWI classification: PEM1/SS3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	10	Yes	UPL
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 80	x 4 =	320
UPL species 10	x 5 =	50
Column Totals: 90 (A)		370 (B)

Prevalence Index = B/A = 4.11

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/6						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No Hydrology Indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B Municipality/Town: Salinas / Guayama Sampling Date: April 13, 2021

Applicant/Owner: Clean Flexible Energy, LLC PR or USVI: PR Sampling Point: SP-26

Investigator(s): Walter E. Soler Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Lat: 17.974193° Long: -66.196539° Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Wetland assessment point located at potential wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions.

SOIL

Sampling Point: SP-26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☑ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. No hydrology indicators.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: AES-Salinas B | Municipality/Town: Salinas / Guayama | Sampling Date: June 3, 2021

Applicant/Owner: Clean Flexible Energy, LLC | PR or USVI: PR | Sampling Point: SP-27

Investigator(s): Walter E. Soler | Ward/Estate: Aguirre / Jobos

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0

Lat: 17.977401° | Long: -66.205318° | Datum: PR Datum

Soil Map Unit Name: Pasto Seco clay (PIB) | NWI classification: PFO3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Chloris sp	50	Yes	FACU
2. Chloris radiata	50	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Very dry conditions, assessment performed during the dry season, must vegetation dead.

SOIL

Sampling Point: SP-27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/3						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very dry conditions. Dead Algae mat.

APPENDIX C: DRNA NATURAL HABITAT CERTIFICATIONS AND FLORA AND FAUNA STUDIES

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.com

GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

JUN 2 8 2021

ING PEDRO M GARCÍA CAMPOS
P O BOX 669
CAGUAS, PR 00726

Estimado ingeniero García Campos:

Certificación para Categorización de
Hábitats Naturales para la Vida Silvestre
Sistema Fotovoltáico Salinas A
Carr. PR-706. km 2.3
Bos. Aguirre, Salinas, & Jobos, Guayama
O-SE-CCH01-SJ-01881-19052021

El Departamento de Recursos Naturales y Ambientales (DRNA) evaluó una Solicitud de Certificación para Categorizaciónn de Hábitats Naturales para la Vida Silvestre para el proyecto de epígrafe. La misma fue evaluada de acuerdo con las disposiciones aplicables relacionadas con la fauna, la flora y sus hábitats de la Ley 416 del 2004, según enmendada (*Ley Sobre Política Pública Ambiental*), su Reglamento 8762 de 2019 (*Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios*), la Ley 23 del 1972, según enmendada (*Ley Orgánica del Departamento de Recursos Naturales y Ambientales de Puerto Rico*), la Ley 150 de 1988, según enmendada (*Ley del Programa de Patrimonio Natural de Puerto Rico*), la Ley 314 de 1998 (*Ley para Declarar la Política Pública sobre Humedales y Designación de Caño Tiburones como Reserva Natural*), la Ley 292 del 1999 (*Ley para la Protección de la Fisiografía Cársica de Puerto Rico*) y su Reglamento 8486 de 2014 (*Plan y Reglamento del Área de Planificación Especial del Carso*) y la Ley 241 del 1999, según enmendada (*Nueva Ley de vida silvestre de Puerto Rico*) y sus Reglamentos 6765 de 2004 (*Reglamento para regir la conservación y el manejo de la vida silvestre, las especies exóticas y la caza en el Estado Libre Asociado de Puerto Rico*) y 6766 del 2004 (*Reglamento para regir las especies vulnerables y en peligro de extinción en el Estado Libre Asociado de Puerto Rico*), así como de la Orden Administrativa del DRNA 2010-09 y el *Puerto Rico State Wildlife Action Plan* del DRNA, adoptado en Septiembre, 2015. En cuanto al Inventario de flora y fauna incluido en la solicitud, encontramos que cumplió satisfactoriamente con las disposiciones aplicables de la Ley 416 del 2004, *supra*, y su Reglamento 8762, *supra*, documentando de forma representativa la flora y la fauna del lugar.

El predio del proyecto ocupa unas 466 cdas. Es un predio rural agrícola abandonado, ocupado mayormente por pastos con algunos árboles y arbustos de especies nativas comunes y exóticas invasoras, especialmente en el extremo norte de la propiedad donde aparenta haber remanentes

de bosque seco. El Canal de Riego de Patillas atraviesa la finca de este a oeste. La Quebrada Aguas Verdes, intermitente, corre de norte a sur por el oeste y la Quebrada Amorós, también intermitente, lo hace por el este. Existen humedales palustrinos asociados a estos tres cuerpos de agua. Se reporta que aquellos asociados a la Quebrada Amorós están protegidos por una Servidumbre de Conservación establecida a favor del DRNA por el dueño anterior del predio (Mycogen Seeds), pero el Departamento no tiene evidencia de que esta servidumbre haya sido constituída. En el extremo norte de la Quebrada Aguas Verdes, en un área forestada entre colinas, se reporta la presencia del lagartijo jardinero del sur (*Ctenonotus poncensis*), especie clasificada como **VULNERABLE.** Se propone la construcción de una planta de producción de energía eléctrica por medio del uso de placas fotovoltáicas.

Como resultado de dicha evaluación, hemos categorizado las porciones forestadas del norte del predio, asi como los humedales sitos en la propiedad, como un **Hábitat Natural de Valor Ecológico (Categoría 4)**. El Artículo 2,03 del Reglamento 6765, supra, establece lo siguiente para esta Categoría:

'La meta de la mitigación es que no haya pérdida en la cantidad y calidad del hábitat a protegerse. El Departamento deberá actuar para proteger el hábitat recomendando o exigiendo:

1. Evitar el impacto mediante alternativas al proyecto propuesto.

2. De ser inevitable el impacto, la mitigación se realizará mediante la cesión de hábitat similar in situ, adyacente o fuera del área a impactarse de manera que no haya pérdida neta de la cantidad o calidad del hábitat existente antes del impacto propuesto. Las mitigaciones se realizarán con terrenos de igual o mayor valor ecológico en proporción de cantidad no menor de 1:1.

3. De no ser posible cumplir con los requisitos anteriores, el Departamento no endosará la acción propuesta.

Por otro lado, hemos categorizado el resto del predio como **Hábitat Natural con Bajo Potencial de Convertirse en Hábitat Esencial, Hábitat de Alto Valor Ecológico o Hábitat de Valor Ecológico (Categoría 6).** El Artículo 2.03 del Reglamento 6765, supra, establece lo siguiente para esta categoría:

"La meta de la mitigación es minimizar el impacto al hábitat. El Departamento deberá actuar para alcanzar las metas de la mitigación de hábitat recomendando o exigiendo acciones que minimicen la pérdida directa de hábitat y que evite impacto a otro hábitat fuera del área a impactarse."

De impactar su proyecto las porciones calificadas como Categoría 4 y para determinar la mitigación que correspondería, deberá presentar en la Oficina de Gerencia de Permisos (OGPe) una recomendación, para que esta, a su vez, sea referida al DRNA. En esta instancia se evaluará el proyecto en todos sus méritos y el DRNA le notificará a la OGPe y a usted su determinación en

conformidad a lo establecido en la Ley Num. 241, supra, y en las disposiciones del Articulo 1.5 (72) de la Ley 161 del 2009 (Ley para la Reforma del Proceso de Permisos de Puerto Rico).

Este documento es una calificación de los hábitats naturales sitos en el predio de epígrafe, requerida por los estatutos legales vigentes. **No constituye un permiso para la construcción u operación del proyecto propuesto.**

Esta certificación es solamente aplicable a la situación de hechos según presentados y evaluados en el caso y el Secretario se reserva el derecho de evaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o la acción administrativa correspondiente por parte de la agencia solicitante o proponente, de surgir nueva información oficial especifica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente o cuando la certificación original se emitió bajo premisas falsas o fraudulentas.

Si tiene alguna pregunta o necesita orientación sobre este asunto, puede escribirnos a la dirección indicada o comunicarse al teléfono 787-999-2200 extensiones 2834 o 2846.

Cordialmente,

Luis R. Sierra Torres
Secretario Auxiliar
Secretaría Auxiliar de Permisos, Endosos y Asuntos Especializados

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES

APR 0 6 2022

ING PEDRO M GARCÍA CAMPOS
P O BOX 669
CAGUAS, PR 00726

Estimado ingeniero García Campos:

MITIGACIÓN
Certificación para Categorización de
Hábitats Naturales para la Vida Silvestre
Sistema Fotovoltáico Salinas A
Carr. PR-706. km 2.3
Bos. Aguirre, Salinas, & Jobos, Guayama
O-SE-CCH01-SJ-01881-19052021

El 19 de junio de 2021 fue radicada en nuestra Oficina de Secretaría la solicitud de epïgrafe. Luego de la evaluación correspondiente, el 28 de junio de ese año este Departamento emitió dicha certificación.

Como resultado de la evaluación, se categorizaron las porciones forestadas del norte del predio y los humedales palustrinos sitos en el predio del proyecto, asociados al Canal de Riego Patillas y a las Quebradas Aguas Verdes y Amorós, como **Habitats Naturales de Valor Ecológico (Categoria 4)**. El Articulo 2.03 del Reglamento 6765 de 2004 (*Reglamento para regir la conservación y el manejo de la vida silvestre, las especies exóticas y la caza en el Estado Libre Asociado de Puerto Rico*), establece lo siguiente para esta Categoría:

"La meta de la mitigación es que no haya perdida en la cantidad y calidad del hábitat a protegerse. El Departamento deberá actuar para proteger el hábitat recomendando o exigiendo:

1. Evitar el impacto mediante alternativas al proyecto propuesto.
2. De ser inevitable el impacto, la mitigación se realizara mediante la cesión de hábitat similar in situ, adyacente o fuera del área a impactarse de manera que no haya perdida neta de la cantidad o calidad del hábitat existente antes del impacto propuesto. Las mitigaciones se realizaran con terrenos de igual o mayor valor ecológico en proporción de cantidad no menor de 1:1.
3. De no ser posible cumplir con los requisitos anteriores, el Departamento no endosara la accion propuesta."

APR 0 6 2022

En su carta del 18 de marzo de 2022, se establece que el proyecto ha sido rediseñado para no afectar estas áreas de valor ecológico, por lo tanto no se impondrán mitigaciones por los mismos. Sin embargo, se le adviene en conocimiento que, de haber algún impacto a las mismas, el Departamento podría imponer las mitigaciones correspondientes.

Si tiene alguna pregunta o necesita orientación sobre este asunto, puede escribirnos a la dirección indicada o comunicarse al teléfono 787-999-2200 extension 2846.

Cordialmente,

Luis R. Sierra Torres
Secretario Auxiliar
Secretaría Auxiliar de Permisos, Endosos y Asuntos Especializados

REV. DIC-2011

Número de Secretaría

O-SE-CCHO1-SJ-01881-19052021

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES
P.O. BOX 366147, SAN JUAN PR 00936

SOLICITUD PARA CERTIFICACIÓN DE CATEGORIZACIÓN DE HÁBITATS NATURALES PARA LA VIDA SILVESTRE

OFIC SECRETARIA-DRNA

Tipo de solicitud:

X **Nueva**

____ **Enmienda o Información Adicional** **Número de certificación anterior:** _____

1. **Nombre del peticionario:** Garcia (Apellido paterno) Campos (Apellido materno) Pedro (Nombre) M. (Inicial)

RECIBIDO-MAY 18 2021 AM11:47

2. **Profesión:** Ingenierro **Licencia profesional:** _____

3. **Dirección física:** #12 calle Acosta Caguas PR 00725

4. **Dirección postal:** P.O. Box 669, Caguas PR 00726

5. **Teléfono Residencial:** _____ **6. Teléfono del Trabajo:** (787) 743-4761

7. **Teléfono celular:** _____ **8. Correo electrónico (e-mail):** pmgarcia@pmggroupllc.com

8. **Número de fax:** _____

9. **Nombre del agente, consultor o representante autorizado (incluir carta de autorización):** Walter E. Soler Figueroa

10. **Nombre del propietario o titular del terreno del proyecto:** Clean Flexible Energy LLC, subsidiaria de AES Corporation
Apellido paterno **Apellido materno** **Nombre** **Inicial**

11. **Dirección física:** PR-3 Km.153 (R7707) Sector Parque Industrial Jobos, Municipio de Guayama

12. **Dirección postal:** P.O. Box 669, Caguas PR 00726

13. **Teléfono residencial:** _____ **14. Teléfono del Trabajo:** _____

15. **Teléfono celular:** _____ **16. Correo electrónico (e-mail):** _____

17. **Número de fax:** _____

Información del lugar del proyecto:

18. Dirección física: PR-706 (Núm. Carretera) Km 2.3 (Km Hm) Aguirre/Jobos (Sector) Salinas/Guayama (Barrio) (Municipio)

19. Zonificación del terreno: Zona Industrial 20. Cabida total: 466 CUERDAS

20. Coordenadas Lambert (Centroide-NAD83) X: 17.9788587° Y: -66.2145256°

21. Descripción del acceso al predio del proyecto (dónde está localizado, cómo se llega, a quién hay que contactar para entrar, hay perros guardianes, hay portones o cercas que impiden el paso, hay caminos/carreteras de acceso, etc):_____

22. Requisitos para la radicación de esta Solicitud[1]:

Deberá cumplir con lo siguiente:

a. Solicitar copia de este formulario en la Oficina de Secretaría del Departamento y cumplimentarla adecuadamente. Asegúrese que con el formulario recibe una copia del documento titulado *"Criterios para la designación de hábitat natural en Puerto Rico mediante mitigación a través de la compra de terrenos y cesión de éstos al Departamento de Recursos Naturales y Ambientales"*. Este documento le explica cómo se establece la designación de un hábitat para efectos de la Ley 241.

b. Al radicar esta Solicitud debidamente cumplimentada en la Oficina de Secretaría del DRNA, la misma deberá estar acompañada de un escrito con la siguiente información:

i. Descripción y localización de la finca del proyecto bajo evaluación.

ii. Inventario reciente de la fauna y flora del lugar de la obra, resaltando la presencia, si alguna, de especies raras, vulnerables o en peligro de extinción o que constituyan elementos críticos de vida silvestre según las listas del DRNA o del gobierno federal.

iii. Descripción de las metodologías utilizadas para efectuar el inventario.

iv. Presencia en la finca de cuerpos de agua, pozos de agua potable, humedales, bosques, cuevas, mogotes, sumideros, descargas de aguas usadas o pluviales, playas, dunas de arena, guajonales, etc..

v. Descripción de los hábitats naturales de alto valor ecológico presentes en la finca del proyecto propuesto. Descripción de los impactos reales o potenciales del proyecto propuesto sobre estos sistemas o cualquier otro de valor natural presente.

vi. Descripción resumida de las actividades humanas pasadas realizadas en el predio del proyecto propuesto, particularmente aquéllas que hayan causado impactos permanentes.

vii. Copia legible de mapa topográfico 1:20,000 dónde se señale claramente la localización de la finca del proyecto propuesto.

viii. Foto aérea dónde se señale claramente la localización de la finca del proyecto propuesto.

ix. Plano de la finca del proyecto (en coordenadas NAD83) dónde se señale detalladamente la huella de impacto de la obra propuesta.

x. Determinación de la Categoría de Hábitat Natural que se recomienda para la finca del proyecto propuesto a tenor con la información sometida y las disposiciones de la Ley 241 y sus reglamentos.

xi. Descripción del área propuesta para mitigación, según la Categoría de Hábitat Natural recomendada y las disposiciones de la Ley 241 y sus reglamentos.

AUTORIZO AL PERSONAL DEL DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES, DEBIDAMENTE IDENTIFICADO, A ENTRAR A INSPECCIONAR LA PROPIEDAD QUE AQUÍ SE SEÑALA DE SER NECESARIO PARA EVALUAR ESTA SOLICITUD. ADEMÁS, CERTIFICO QUE LA INFORMACIÓN QUE SE SOMETE EN ESTA SOLICITUD Y EN LOS DOCUMENTOS QUE LA ACOMPAÑEN ES CORRECTA, SEGÚN MI MEJOR SABER Y ENTENDER.

Walter E. Soler Figueroa	_____	17-05-21
Nombre del peticionario o representante autorizado	**Firma**	**Fecha (DD-MM-AA)**

Para uso de la Oficina de Secretaría

_____

Firma del funcionario que recibe la solicitud

1 Estos requisitos se desprenden de la Ley 241 del 15 de agosto de 1999 ("Nueva Ley de Vida Silvestre de Puerto Rico"), de los Reglamentos de Vida Silvestre Núms. 6765 y 6766 y de la Orden Administrativa Núm 2010-09.

AMBIENTA INC.
Environmental Consultants

30 de abril de 2021

Luis Sierra
Secretario Auxiliar de Permisos, Endosos y Servicios Especializados
Departamento de Recursos Naturales y Ambientales

SOLICITUD PARA CERTIFICACIÓN DE CATEGORIZACIÓN DE HÁBITATS NATURALES PARA LA VIDA SILVESTRE. PROYECTO DE SISTEMA SOLAR-FOTOVOLTAICO AES SALINAS, SALINAS-GUAYAMA, PUERTO RICO.

Estimado Sr. Sierra:

Clean Flexible Energy, LLC (Dueño) propone la construcción de un sistema solar fotovoltaico para proveer energía renovable a la red de distribución de la Autoridad de Energía Eléctrica de PR (AEE). El predio comprende aproximadamente de unas 466 cuerdas (1,831,829metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico.

El Dueño se encuentra en el proceso de negociación de un contrato de compra de energía con la Autoridad de Energía Eléctrica (AEE), en donde el Dueño será responsable de construir, operar y suplir la energía eléctrica producida por el sistema fotovoltaico para suministrarla como energía suplementaria a la AEE.

PMG Associates, Inc. presenta para consideración, la documentación necesaria para obtener la *Certificación de la Categorización de Hábitats Naturales para la Vida Silvestre* para el área donde se propone el "Sistema solar-fotovoltaico" (en adelante, el Proyecto).

A continuación, se presenta la información requerida en el formulario de la solicitud.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
T. (787) 510-7031 / T. (787) 732-0907
FAX (787) 732-6137 / ambienta@caribe.net

i. Descripción y localización de la finca del proyecto bajo evaluación:

El predio comprende aproximadamente de unas 466 cuerdas (1,831,829metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico. El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna terrestre en el cual se pueden observar varios mapas del área, entre éstos, la Figura 1 con el mapa del cuadrángulo topográfico mostrando la ubicación del Proyecto. En el área de estudio se identificaron tres asociaciones vegetales, estas son: pastizales no manejados, áreas de arbustos y matorrales, y áreas forestadas. El área de estudio se encuentra en un área de baja biodiversidad que fue previamente perturbada y utilizada en años pasados para la agricultura.

ii. Descripción de las metodologías utilizadas para realizar el inventario:

El **Anejo A** de este memorando contiene el estudio de flora y fauna realizado en el área que contendría el Proyecto, y en éste se describe la metodología utilizada para la realización del inventario de flora y fauna. En general, después de una revisión de la literatura para la zona se realizó un muestreo sistemático mediante el recorrido y evaluación de toda el área de construcción del Proyecto.

iii. Presencia de cuerpos de agua, pozos de agua potable, humedales, bosques, cuevas, mogotes, sumideros, descargas de aguas usadas o pluviales, playas, dunas de arena, guajonales, etc. en la finca:

Basado en la información evaluada y en la inspección y reconocimiento del área que contendría el Proyecto no se observaron cuevas, sumideros, playas, dunas de arena o guajonales. Sin embargo se observaron estructuras que podrían ser pozos de agua para riego. Además se encontraron áreas que podrían ser catalogadas como humedales. Estas aéreas están asociadas a la quebrada Aguas Verdes que cruza el área de estudio por el extremo oeste hasta descargar en la bahía de Jobos y a la Quebrada Amorós que cruza el área de estudio por la parte sur-sureste. Las áreas de humedal asociadas a la Quebrada Amarós aparentan estar inscritas como Servidumbre de Conservación a favor del DRNA como parte del proceso de permisos y endosos del dueño anterior del terreno, en donde Mycogen Seeds operó un proyecto agrícola en el predio aproximadamente entre los años 2012 y 2017.

Aunque algunas áreas pudieran cumplir con los criterios para ser catalogadas como humedales, la reglamentación actual de la Agencia de Protección Ambiental de E.U. (EPA, por sus siglas en inglés) establece que los terrenos que pudieran haber sido humedales y fueron convertidos a terrenos agrícolas previo al 1985 y que estuvieron activos con uso agrícola en los pasados 5 años no están bajo la jurisdicción del la Sección 404 de la Ley de Agua Limpia Federal ("Clean Water Acto r CWA") y basado en la Párrafo (b) (6) de la Regla de Protección de Aguas Navegables ("Navigable Waters Protection Rule").

Por otro lado, el Artículo 5 de la Ley 314 del 24 de Diciembre de 1998 según enmendada, Ley para Declarar La Política Pública sobre Humedales y la Designación del Caño Tiburones como Reserva Natural, incluye las exclusiones a la ley, y establece como exclusión los "*Campos e infraestructura agrícola (riego y drenaje) en reconocimiento de la importancia que tiene sobre cualquier otra consideración la actividad agrícola en tanto en cuanto no menoscabe en la calidad los recursos de agua*."

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Basado en la información suministrada, se concluye que no se prevé que hábitats de valor ecológico se vean afectados significativamente por el desarrollo propuesto.

iv. Descripción de hábitats naturales de alto valor ecológico presentes en la finca a localizar el proyecto propuesto. Descripción de los impactos reales o potenciales del proyecto propuesto sobre estos sistemas o cualquier otro de valor natural presente:

Los terrenos evaluados evidencian haber sido perturbados y utilizados recientemente para la agricultura y estos poseen una baja biodiversidad. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017.

Como parte del desarrollo del Proyecto de Mycogen Seeds, y en cumplimiento con la Ley 241 del 15 de agosto de 1999, para establecer la Nueva Ley de Vida Silvestre de Puerto Rico, algunas áreas fueron designadas como Servidumbres de Conservación a favor del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico, dichas áreas consisten en áreas de quebradas, canales, humedales, una parcela de mitigación de humedales y colinas; algunas de estas dentro del predio propuesto para el proyecto y otras fuera. Dichas áreas deberán estar fuera de la huella de desarrollo de cualquier proyecto futuro.

Por otro lado durante los trabajos de campo, se observaron dos especímenes que podrían ser de la especie del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Sin embargo, por la movilidad rápida del reptil no se pudo confirmar que sea dicha especie. Las localidades con la potencial presencia del *C. poncensis* corresponden a un área forestada entre dos colinas al norte del predio que se incluyeron en el borrador del plano de inscripción de la Servidumbre de Conservación antes mencionada como Parcela #8 (288.8824 cuerdas) y en un área forestada asociada y localizada en el extremo norte de la Quebrada Aguas Verdes, la cual discurre por el extremo noroeste del predio y la cual no fue incluida dentro de la Servidumbre de Conservación. Ninguna otra de las especies de flora o fauna identificadas posee designación especial.

Si se considera desarrollar los terrenos adyacentes a la Quebrada Aguas Verdes se recomienda realizar un estudio de búsquedas específicas de *Ctenonotus poncensis* para confirmar o descartar su presencia en dicha localidad. Por otro lado, otra opción en el caso que se propongan trabajos en las áreas adyacentes a la Quebrada Aguas Verdes es preparar e implementar un protocolo de protección, manejo y conservación del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) especialmente durante las actividades de remoción de capa vegetal y movimiento de tierra, el cual deberá incluir entre las tareas la obtención de un permiso de captura y relocalización de la especie. Luego de implementado dicho protocolo, no se espera que se impacten especies de flora y fauna consideradas como especies críticas, amenazadas o en peligro de extinción. Debido a que la otra localidad con la potencial presencia de la especie se ubica en áreas designadas como Servidumbre de Conservación a favor del DRNA no se prevén impactos a *C. poncensis* en dicha localidad; sin embargo se debe confirmar que dicha localidad en efecto es parte de la Servidumbre de Conservación inscrita a favor del DRNA. Basado en lo anterior, no se espera que el Proyecto impacte áreas de alto valor ecológico.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
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Una vez se implemente el protocolo de conservación del Lagartijo Jardinero del Sur, no se prevé que ninguna especie de interés para la conservación, ni hábitats de alto valor ecológico se vean afectados significativamente por el desarrollo propuesto. Existe el potencial de que ocurran impactos temporeros sobre la flora y la fauna terrestre durante la construcción del Proyecto. El impacto principal sobre la vegetación será causado por la remoción de árboles para la construcción del proyecto. Por consiguiente, los efectos más directos a la vida silvestre resultarán de la eliminación, alteración o fragmentación de habitáculos existentes, como consecuencia de la construcción del Proyecto. Sin embargo, aunque estos impactos serán mínimos por la baja biodiversidad del área, se espera que estos efectos sean mitigados con la reforestación y la restauración y creación de habitáculos, como parte de las acciones de mitigación del Proyecto propuesto. Por otro lado, algunos de los animales que utilizan habitáculos en el área del Proyecto podrían ser desplazados temporalmente durante la fase de construcción. Algunos de los animales desplazados podrían establecerse en habitáculos cercanos. Sin embargo, debido a que muchos de los habitáculos cercanos presentan poblaciones establecidas de dichas especies, es posible que los individuos desplazados tengan que competir por los recursos con éstas, residentes de las áreas cercanas. Esta posible competencia podría resultar en la desaparición temporera de las especies desplazadas dentro del área del Proyecto o que tengan que utilizar áreas menos favorables donde sus recursos no se encuentren en cantidades aceptables o donde aumente su exposición a depredadores. Sin embargo, este efecto se espera sólo sobre especies comunes que podrían re-colonizar los habitáculos dentro del Proyecto una vez termine la construcción. De igual forma, estos impactos se deben mitigar con la implementación de prácticas de ingeniería apropiadas y mediante la implantación de planes de mitigación y de manejo de las especies afectadas. Se espera que los impactos sobre la flora a ser ocasionados por el desarrollo del proyecto sean mínimos tomando en consideración las acciones de mitigación que se deben realizar con respecto a los árboles existentes.

v. Descripción resumida de las actividades humanas pasadas realizadas en el predio del proyecto propuesto, particularmente aquéllas que hayan causado impactos permanentes:

Antiguamente el área era utilizada con fines agrícolas. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Tras el paso del Huracán María por nuestra zona, esta área fue severamente impactada, se observan muchos árboles caídos o virados.

vi. Copia legible del mapa topográfico 1:20,000 donde se señale claramente la localización de la finca del proyecto propuesto:

El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna Terrestre en el cual se pueden observar varios mapas del área, entre éstos, la Figura 1 con el mapa del cuadrángulo topográfico mostrando la ubicación del Proyecto.

vii. Foto aérea donde se señale claramente la localización de la finca del proyecto propuesto:

El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna Terrestre en el cual se pueden observar varios mapas del área, entre éstos, la Figura 3 que incluye la fotografía aérea mostrando la ubicación del Proyecto.

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viii. Plano de la finca del proyecto (en coordenadas Nad 83) donde se señale detalladamente la huella de impacto de la obra propuesta:

El **Anejo B** de este memorando contiene el plano de la finca del proyecto donde se señala la huella de impacto del Proyecto propuesto.

ix. Determinación de la Categoría de Hábitat Natural que se recomienda para la finca del proyecto propuesto a tenor con la información sometida y las disposiciones de la ley 241 y sus reglamentos:

Basado en la Ley 241 (Nueva Ley de Vida Silvestre de Puerto Rico), y en sus reglamentos, Reglamento 6765 del año 2004, Reglamento para Regir la Conservación y el Manejo de la Vida Silvestre, las Especies Exóticas y la Caza en el Estado Libre Asociado de Puerto Rico, Reglamento Núm. 6766, Reglamento para regir las especies vulnerables y en peligro de extinción en el Estado Libre Asociado de Puerto Rico, y utilizando los Criterios para la designación de Hábitat Natural en Puerto Rico y su conservación, los terrenos propuestos pueden ser catalogados como: **Hábitat Natural de Valor Ecológico (Categoría 4)** para las áreas con remanentes boscosos al norte del predio y las quebradas ya que dominan especies de árboles maduros en composición variada entre especies nativas e introducidas y algunas areas son cuerpos de agua intermitentes o efímeros; y **Hábitat Natural con Gran Potencial de Convertirse en Esencial, de Alto Valor o de Valor Ecológico (Categoría 5)** en las áreas llanas antiguamente utilizadas para la agricultura ya que se componen de terreno con una cobertura vegetal arbustiva y pastizales, dominados por especies nativas y exóticas, y adyacentes o cercanas a áreas de alto valor ecológico.

Debido a la potencial presencia del Lagartijo Jardinero del Sur en el área del proyecto, y luego de implementado su protocolo de protección, manejo y conservación, no se prevé que ninguna especie de interés para la conservación, ni hábitats de alto valor ecológico se vean afectados significativamente por el desarrollo propuesto.

x. Descripción del área propuesta para mitigación, según la categoría de Hábitat Natural recomendada y las disposiciones de la Ley 241 y sus reglamentos:

Las acciones de mitigación del Proyecto se harán congruentemente con los requerimientos de la Ley 241. Esta mitigación será establecida según los requisitos de la Ley 241 y congruentemente con los requisitos de mitigación de árboles establecidos en el Reglamento Conjunto de OGPe, según enmendado (Regla 3.4.2). También se implementarán medidas para el control de erosión, sedimentación y polvo fugitivo entre otras.

Según lo antes expuesto, queda bajo la consideración del DRNA emitir la *Certificación de la Categorización de Hábitats Naturales para la Vida Silvestre* para el Proyecto. De tener cualquier duda o pregunta, no dude en comunicarse a su conveniencia.

Cordialmente,

Walter E. Soler-Figueroa
Presidente

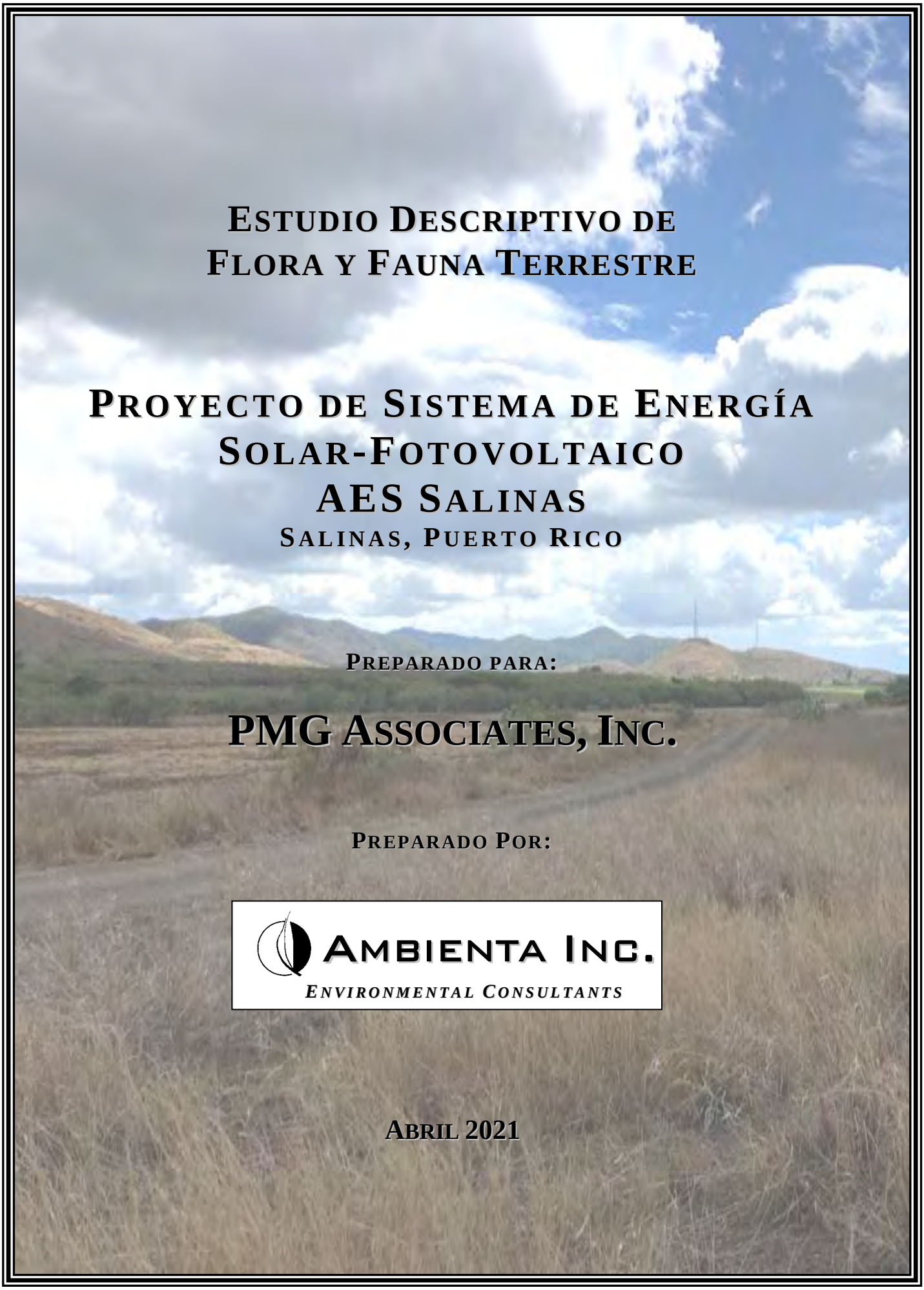
Anejos.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com

ANEJO A:

ESTUDIO DE FLORA Y FAUNA TERRESTRE.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com



ESTUDIO DESCRIPTIVO DE FLORA Y FAUNA TERRESTRE

PROYECTO DE SISTEMA DE ENERGÍA SOLAR-FOTOVOLTAICO AES SALINAS

SALINAS, PUERTO RICO

PREPARADO PARA:

PMG ASSOCIATES, INC.

PREPARADO POR:

AMBIENTA INC.
ENVIRONMENTAL CONSULTANTS

ABRIL 2021

ESTUDIO DESCRIPTIVO DE FLORA Y FAUNA TERRESTRE

PROYECTO DE SISTEMA DE ENERGÍA SOLAR-FOTOVOLTAICO AES SALINAS

SALINAS, PUERTO RICO

PREPARADO PARA:

PMG ASSOCIATES, INC.

PREPARADO POR:

AMBIENTA INC.
ENVIRONMENTAL CONSULTANTS

ABRIL 2021

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1.0 RESUMEN EJECUTIVO

Clean Flexible Energy, LLC (Dueño) propone la construcción de un sistema solar fotovoltaico para proveer energía renovable a la red de distribución de la Autoridad de Energía Eléctrica de PR (AEE). El predio comprende aproximadamente de unas 466 cuerdas (1,831,829metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico.

El Proyecto propuesto tiene como propósito la utilización de áreas actualmente en desuso, para la instalación de un proyecto de energía renovable que contribuya a la creación de un sistema energético resiliente, confiable y robusto integrado al sistema eléctrico provisto por la Autoridad de Energía Eléctrica (AEE).

Este documento constituye el Estudio Descriptivo de Flora y Fauna Terrestre (el Estudio) necesario como requisito de la documentación ambiental para el proyecto. El propósito de este estudio es caracterizar los sistemas naturales presentes en el predio y así obtener una imagen integral y una herramienta de planificación para el futuro proyecto.

Previo a la realización del estudio de campo de flora y fauna se hizo una revisión de la literatura científica existente concerniente a localidades identificadas con la presencia de especies listadas como críticas, amenazadas o en peligro de extinción, también se revisó literatura científica disponible sobre estudios previos en el área del Proyecto.

Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales, matorrales con arbustos, áreas que fueron aradas para la siembra y rodales de árboles típicos de áreas previamente perturbadas y utilizadas para la agricultura.

Se identificaron un total de ciento treinta y una (131) especies de plantas de entre cuarenta y siete (47) familias. Por otro lado, un total de setenta (70) especies de fauna fueron identificadas, siendo las aves el grupo dominante, de las cuales se identificó un total de cuarenta y cinco (45) especies.

Los terrenos propuestos evidencian haber sido perturbados y utilizados recientemente para la agricultura y estos poseen una baja biodiversidad. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017.

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Como parte del desarrollo del Proyecto de Mycogen Seeds, y en cumplimiento con la Ley 241 del 15 de agosto de 1999, para establecer la Nueva Ley de Vida Silvestre de Puerto Rico, algunas áreas fueron designadas como Servidumbres de Conservación a favor del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico, dichas áreas consisten en áreas de quebradas, canales, humedales, una parcela de mitigación de humedales y colinas; algunas de estas dentro del predio propuesto para el proyecto y otras fuera. Dichas áreas deberán estar fuera de la huella de desarrollo de cualquier proyecto futuro. Se recomienda obtener el plano oficial de inscripción de las parcelas designadas como Servidumbre de Conservación para garantizar su protección y como herramienta para el diseño y planificación del proyecto.

Por otro lado durante los trabajos de campo, se observaron dos especímenes que podrían ser de la especie del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Sin embargo, por la movilidad rápida del reptil no se pudo confirmar que sea dicha especie. Las localidades con la potencial presencia del *C. poncensis* corresponden a un área forestada entre dos colinas al norte del predio que se incluyeron en el borrador del plano de inscripción de la Servidumbre de Conservación antes mencionada como Parcela #8 (288.8824 cuerdas) y en un área forestada asociada y localizada en el extremo norte de la Quebrada Aguas Verdes, la cual discurre por el extremo noroeste del predio y la cual no fue incluida dentro de la Servidumbre de Conservación. Ninguna otra de las especies de flora o fauna identificadas posee designación especial.

Si se considera desarrollar los terrenos adyacentes a la Quebrada Aguas Verdes se recomienda realizar un estudio de búsquedas específicas de *Ctenonotus poncensis* para confirmar o descartar su presencia en dicha localidad. Por otro lado, otra opción en el caso que se propongan trabajos en las áreas adyacentes a la Quebrada Aguas Verdes es preparar e implementar un protocolo de protección, manejo y conservación del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) especialmente durante las actividades de remoción de capa vegetal y movimiento de tierra, el cual deberá incluir entre las tareas la obtención de un permiso de captura y relocalización de la especie. Debido a que la otra localidad con la potencial presencia de la especie se ubica en áreas designadas como Servidumbre de Conservación a favor del DRNA no se prevén impactos a *C. poncensis* en dicha localidad; sin embargo se debe confirmar que dicha localidad en efecto es parte de la Servidumbre de Conservación inscrita a favor del DRNA.

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2.0 INTRODUCCIÓN

Clean Flexible Energy, LLC (Dueño) propone la construcción de un sistema solar fotovoltaico para proveer energía renovable a la red de distribución de la Autoridad de Energía Eléctrica de PR (AEE). El predio comprende aproximadamente de unas 466 cuerdas (1,831,829metros cuadrados); está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico (ver **Figura 1**).

El Dueño se encuentra en el proceso de negociación de un contrato de compra de energía con la AEE, en donde el Dueño será responsable de construir, operar y suplir la energía eléctrica producida por el sistema fotovoltaico para suministrarla como energía suplementaria a la AEE.

El sistema fotovoltaico propuesto (el Proyecto) consistirá en lo siguiente:

- Conjunto de paneles fotovoltaicos instalados sobre estructuras de soporte hincadas sobre el terreno ("ground-mounted").
- Equipos de inversores, baterías y transformadores.
- Mejoras en la infraestructura eléctrica y manejo de escorrentía superficial.
- Caminos de accesos necesarios para la operación y mantenimiento del sistema.

El Proyecto propuesto tiene como propósito la utilización de áreas actualmente en desuso, para la instalación de un proyecto de energía renovable que contribuya a la creación de un sistema energético resiliente, confiable y robusto integrado al sistema eléctrico provisto por la Autoridad de Energía Eléctrica (AEE).

La construcción de este proyecto es cónsono con los objetivos de la "Ley de Política Pública Energética de Puerto Rico" (Ley Núm. 17 de 11 de abril de 2019) y del Plan de Uso de Terrenos (PUT), ya que además de proveer una fuente de energía alterna para la AEE, contribuye también a mejorar la calidad de medio ambiente mediante el uso de fuentes de energía renovable reduciendo la quema de combustible fósil y las emisiones de gases de invernadero, representando esto un mejor uso de los recursos naturales para beneficio del medio ambiente, la salud pública y la economía.

El acceso principal a la propiedad es a través de la carretera estatal PR-706 al oeste del predio. El acceso al proyecto fotovoltaico será a través del acceso y vías existentes en la propiedad y no requiere modificación alguna al acceso existente. En el predio se realizarán mejoras para proveer caminos internos para la operación y mantenimiento de los equipos a instalarse en esta segunda fase.

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La propiedad donde se propone el Proyecto se encuentra accesible a infraestructura potable, sanitaria, telecomunicaciones y energía eléctrica. El Proyecto tendrá como beneficio la generación de energía eléctrica de una fuente renovable para suplir las necesidades de energía de la AEE. El predio donde ubicará el proyecto solar no requiere de servicios de agua potable ni alcantarillado sanitario de la Autoridad de Acueductos y Alcantarillado (AAA).

La Ley Núm. 17 de 11 de abril de 2019, conocida como la "Ley de Política Pública Energética de Puerto Rico" se crea a los fines de establecer la política pública energética de Puerto Rico para crear los parámetros que guiarán a un sistema energético resiliente, confiable y robusto, con tarifas justas y razonables para todas las clases de consumidores, viabilizar que el usuario del servicio de energía produzca y participe en la generación de energía, facilitar la interconexión de la generación distribuida y microredes, y desagregar y transformar el sistema eléctrico en uno abierto.

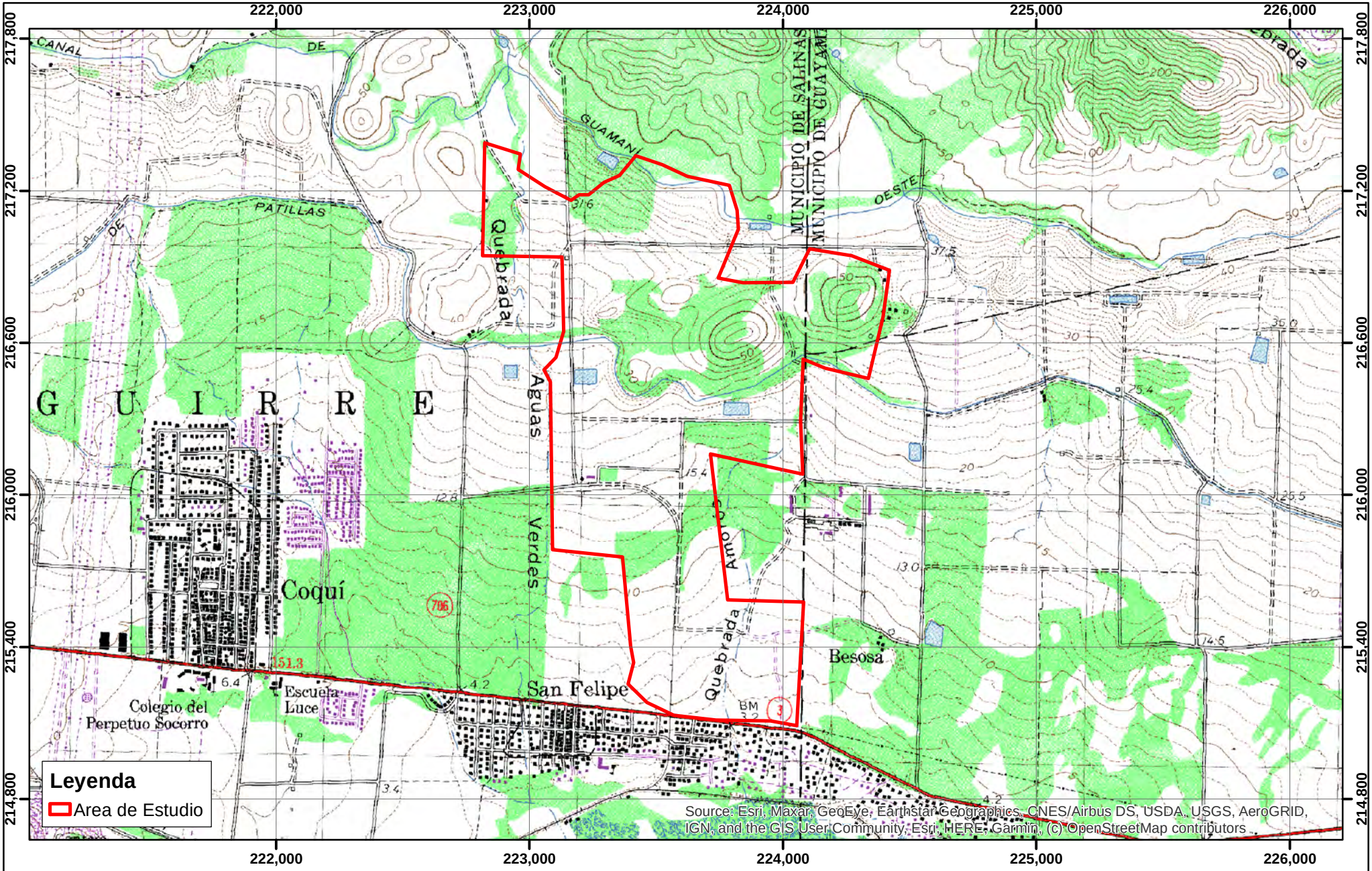
El Artículo 1.11 (f) de dicha ley dispone que para facilitar el desarrollo de proyectos de energía renovable y cumplir con la Cartera de Energía Renovable establecida en la Ley Núm. 82-2010, según enmendada, todos los permisos, consultas, variaciones, endosos, certificaciones, concesiones y/o autorizaciones para los proyectos de energía renovable, incluyendo, pero sin limitarse a, los trámites relativos al cumplimiento con la Ley 416- 2004, según enmendada, conocida como Ley sobre Política Pública Ambiental, deberán ser tramitados por la Oficina de Gerencia de Permisos y demás agencias concernidas siguiendo los procedimientos expeditos para estados de emergencia establecidos al amparo de la Ley 76-2000, según enmendada, y las órdenes administrativas y reglamentación aplicable a estos casos de las agencias concernidas.

Este documento constituye el Estudio Descriptivo de Flora y Fauna Terrestre (el Estudio) necesario como requisito de la documentación ambiental para el proyecto. El propósito de este estudio es caracterizar los sistemas naturales presentes en la Propiedad y así obtener una imagen integral y una herramienta de planificación para el futuro proyecto.

Como parte de la recopilación de datos se desarrolló este estudio descriptivo de flora y fauna terrestre correspondiente al predio completo que contendrá el Proyecto. Esta información provee detalles de la composición vegetal y animal en el área propuesta para el Proyecto.

En el Estudio se presentan datos generales que intentan describir algunos componentes ambientales del área de estudio. Esto pretende complementar la información para presentar una imagen integral.

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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Figura 1: Mapa de Localización

AES Salinas - PV, Salinas, P.R.

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Date: 4/14/2021

PMC AND ASSOCIATES

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3.0 DESCRIPCIÓN GENERAL DEL ÁREA DE ESTUDIO

Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales, matorrales con arbustos, áreas que fueron aradas para la siembra y rodales de árboles típicos de áreas previamente perturbadas y utilizadas para la agricultura. A continuación se describen los componentes principales y relevantes para este estudio. Dicha información es complementada con las figuras y los anejos correspondientes.

3.1 LOCALIZACIÓN

El predio donde ubica la facilidad AES Salinas comprende aproximadamente de unas 466 cuerdas (1,831,829metros cuadrados), en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico (ver **Figura 1**).

3.2 TOPOGRAFÍA

La topografía del predio es variada con áreas mayormente llanas y tres pequeñas colinas a lo largo del extremo norte de la propiedad. Su elevación varía de 5 a 50 metros sobre el nivel del mar.

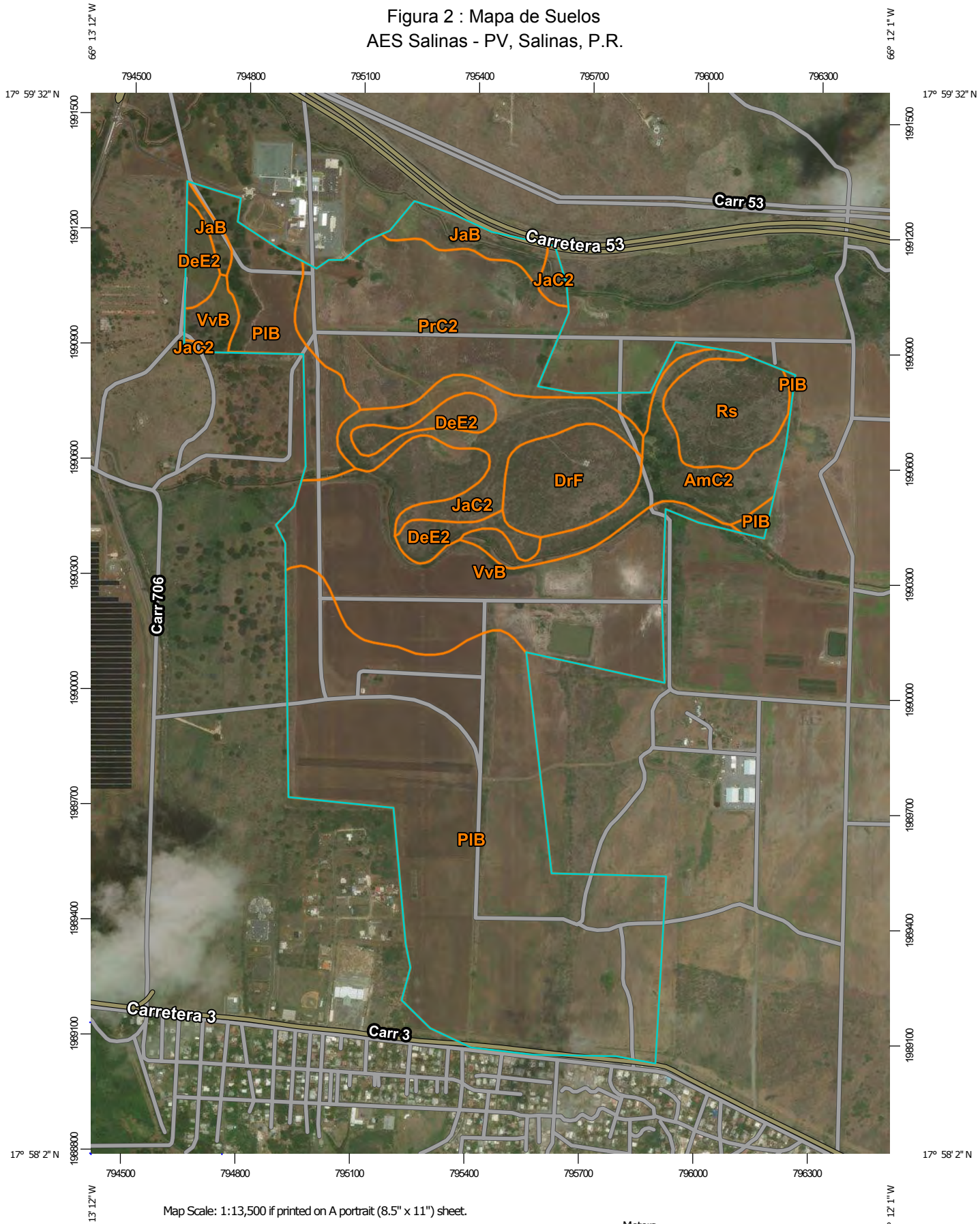
3.3 SUELOS

Según el *Catastro de Suelos del Área de Humacao de Puerto Rico* del Servicio de Conservación de Suelos de los Estados Unidos ("Soil Survey of the Humacao Area of Puerto Rico-U.S. Soil Conservation Service"), el predio contiene nueve (9) tipos de suelos, la serie Amelia gravelly clay loam (AmC2), la serie Descalabrado clay loam (DeE2), la serie Descalabrado rock land complex (DrF), la serie Jacana clay (JaB), la serie Jacana clay (JaC2), la serie Pasto Seco clay (PIB), la serie Pozo Blanco clay loam (PrC2), la serie Rock land (Rs) y la serie Vives clay (VvB). La **Figura 2** muestra el mapa de suelos del área. A continuación se presenta la descripción del suelo del área según el catastro de suelos.

Serie Amelia gravelly clay loam (AmC2): Estos suelos se encuentran en las pendientes y en los llanos inundables a lo largo de los ríos. Son de buen drenaje y permeabilidad moderada. Con capacidad de agua baja y de fertilidad baja. Este suelo ha sido usado para la siembra de caña de azúcar y gramas de pastoreo.

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Figura 2 : Mapa de Suelos
AES Salinas - PV, Salinas, P.R.



Map Scale: 1:13,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 200 400 800 1200

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

Serie Descalabrado clay loam (DeE2): Este suelo está en las pendientes y cumbres de las alturas volcánicas. Son de buen drenaje y permeabilidad moderada. Las pendientes escarpadas, la escorrentía rápida, la poca precipitación de lluvia y el riesgo de erosión son limitaciones severas para la agricultura. Se ha usado mayormente para gramas de pastoreo y matorrales.

Serie Descalabrado rock land complex (DrF): Estos suelos se encuentran en las pendientes laterales y en las terrazas en las alturas volcánicas. Por sus pendientes pronunciadas, lo poco profundo de la roca y lo rocosos que son tienen severas Limitaciones para la agricultura.

Serie Jacana clay (JaB): Estos suelos se encuentran en las pendientes del área semiárida. De buen drenaje y permeabilidad moderadamente lenta. Estos suelos tienen serias limitaciones para la agricultura por sus pendientes moderadas, el riesgo de erosión y lo difíciles para trabajar.

Serie Jacana clay (JaC2): Estos suelos se encuentran en las pendientes y en las colinas bajas del área semiárida. De buen drenaje y permeabilidad moderadamente lenta. La poca precipitación de lluvia es una limitación severa para la agricultura.

Serie Pasto Seco clay (PIB): Estos suelos se encuentran en las terrazas y las pendientes del área semiárida. De drenaje moderadamente bueno y permeabilidad lenta. Son difíciles de trabajar.

Serie Pozo Blanco clay loam (PrC2): Estos suelos se encuentran en las pendientes del área semiárida. De buen drenaje y permeabilidad moderada. Este suelo tiene severas limitaciones para la agricultura por su pendiente.

Serie Rock land (Rs): Consiste de áreas donde la roca cubre del 50% al 70% de la superficie. La vegetación en estas áreas es de matorrales.

Serie Vives clay (VvB): Estos suelos se encuentran en las terrazas y las pendientes del área semiárida. De drenaje moderadamente bueno y permeabilidad moderada. Tiene moderadas limitaciones para la agricultura por la poca precipitación de lluvia, su pendiente y el peligro de erosión.

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3.4 CLIMA

El área de estudio se encuentra en la zona bosque seco costero, según el sistema de zonas de vida de Holdrige. La temperatura diaria promedio fluctúa de 85.8°F a 91.4°F. La lluvia anual promedio fluctúa de 600mm a 1,000mm y es más frecuente durante los meses de septiembre a noviembre. La evaporación excede la precipitación. La humedad relativa promedio es 80%. Los vientos soplan usualmente del este.

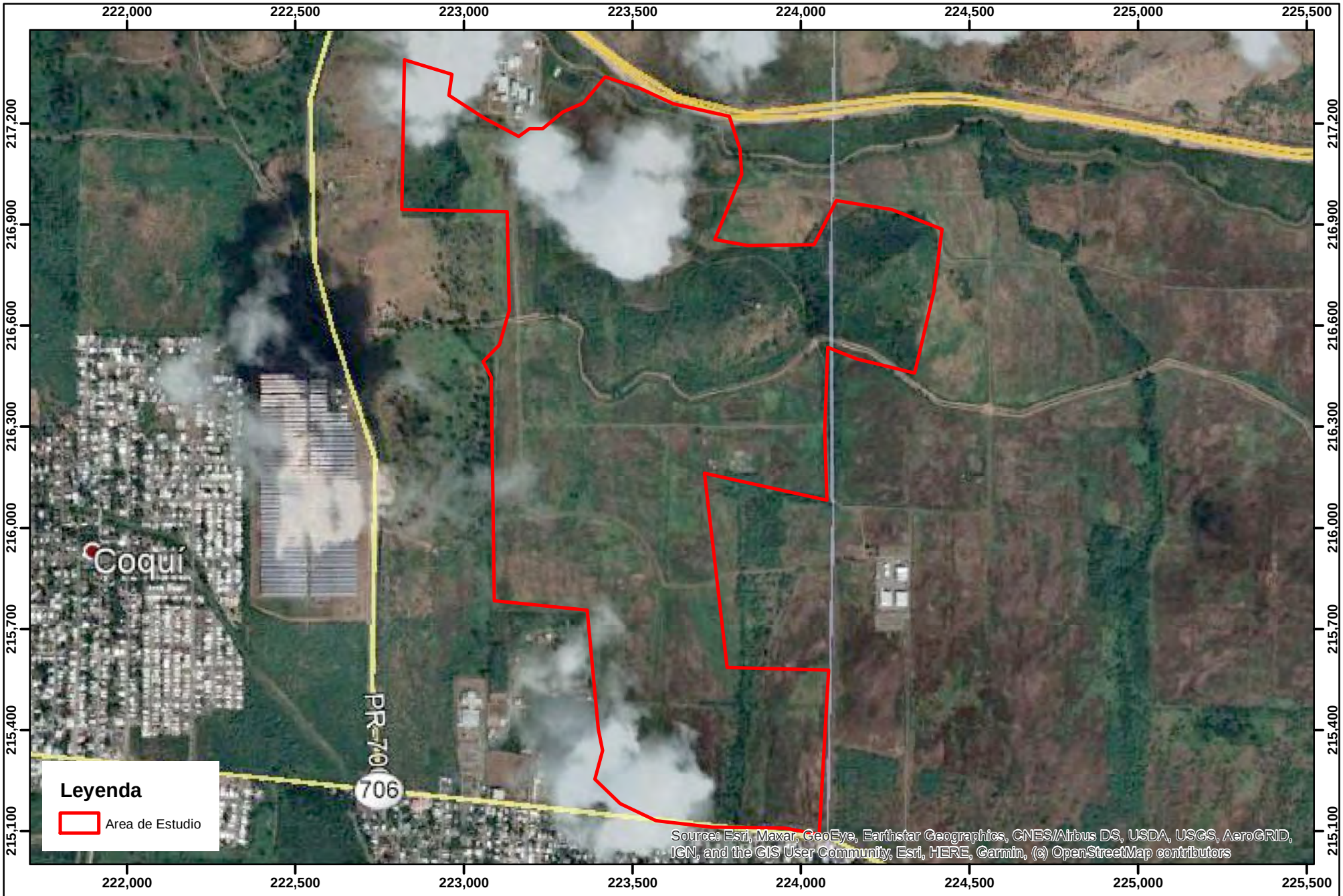
3.5 COMPONENTES BIÓTICOS

La zona de vida ecológica en la que se encuentra el Proyecto propuesto se conoce como Bosque Seco Subtropical (Ewel y Whitmore, 1973). Aproximadamente el 13.8% del área total de Puerto Rico se encuentra bajo esta clasificación. El clima, el suelo, las escorrentías y otros factores le dan forma y estructura a las asociaciones florísticas encontradas en esta zona de vida.

En esta zona de vida la agricultura es mayormente marginal, excepto con riego. La producción de carbón fue común en esta zona pero esta práctica está casi extinta. Entre las especies más comunes de esta zona de vida se encuentran: el Ucar, (*Bucida buceras*), el Dildo (*Pilosocereus royenii*), el bucayo gigante (*Erythrina poeppigiana*), la guaba (*Inga vera*), el Bayahonda (*Prosopis juliflora*), el Tachuelo (*Pictetia aculeata*), el Botón de cadete (*Leucaena leucocephala*) y el Guayacán (*Guaiacum officinale*), entre otras.

No obstante, basado en las fotografías aéreas históricas del área, la vegetación del predio ha sido extensamente alterada en el pasado. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Las asociaciones florísticas presentes no presentan la forma y estructura típica de bosques naturales encontradas en esta zona de vida. Esto se evidencia en su contenido herbáceo, en sus gramíneas dominantes y en las especies de árboles comunes presentes. La **Figura 3** muestra la fotografía aérea del área.

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480 240 0 480 Meters

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter



Figura 3 : Fotografía Aérea

AES-Salinas-A PV - Salinas, PR

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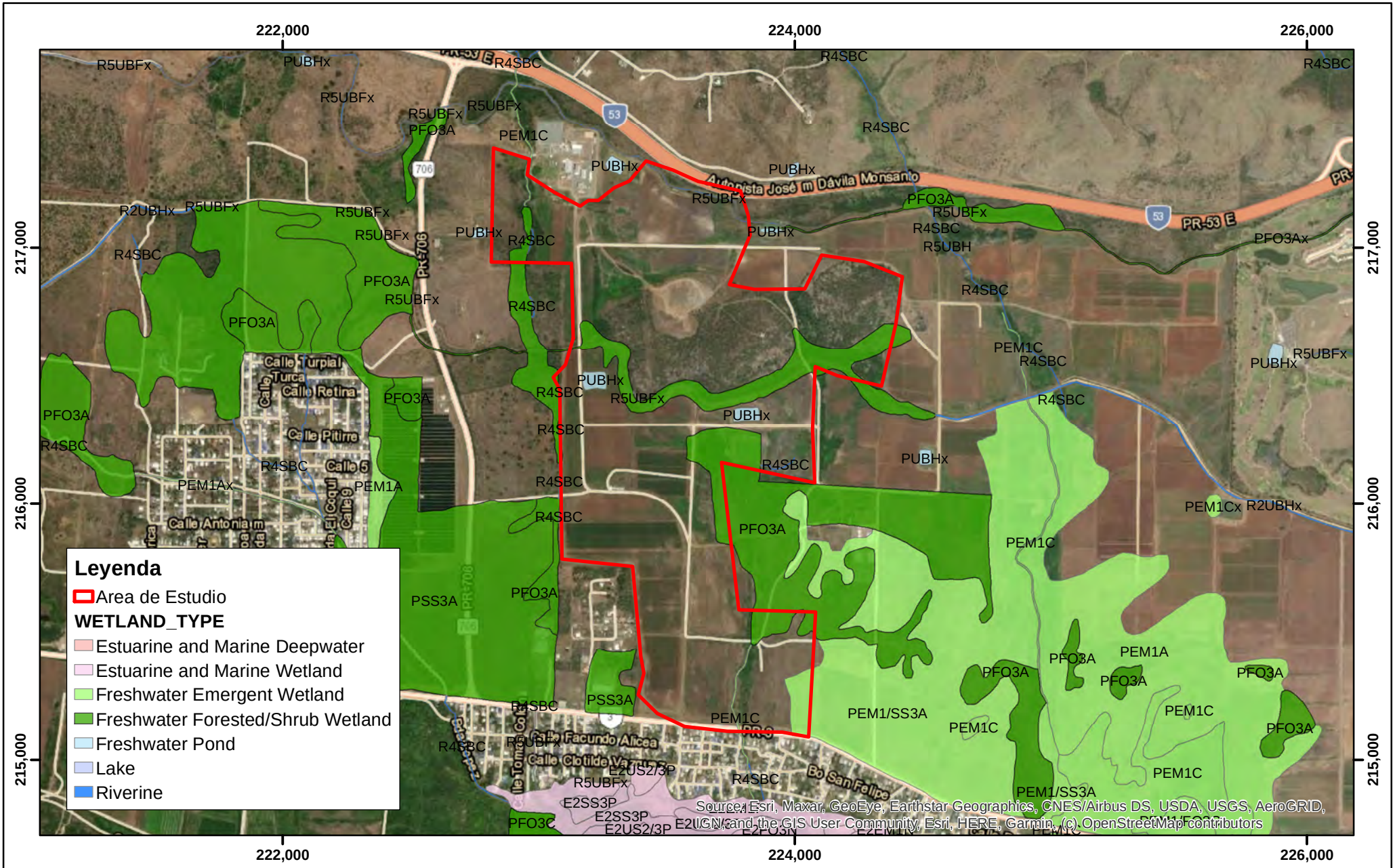
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3.6 HIDROLOGÍA Y HUMEDALES

La hidrología del predio está caracterizada por el flujo de la escorrentía pluvial y por la topografía. El Canal de Riego Guamaní Oeste cruza el área de estudio por el norte, el Canal de Riego Patillas cruza el área de estudio por el centro de este a oeste. La Quebrada Aguas Verdes cruza el área de estudio por el extremo noroeste hasta descargar en la bahía de Jobos. La Quebrada Amorós cruza el área de estudio por la parte sur-sureste. Además se observaron dos charcas de riego en desuso en la parte este central de área de estudio que se nutren del Canal de Riego Patillas.

Los mapas del Inventario Nacional de Humedales ("NWI Maps", por sus siglas en inglés) del Servicio de Pesca y Vida silvestre de E.U. (USFWS) muestran algunas localidades de humedales dentro del área de estudio. Sin embargo, la gran mayoría de estas áreas no se observaron húmedas ni con vegetación hidrofítica. La **Figura 4** muestra el Mapa del Inventario Nacional de Humedales.

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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Figura 4 : NWI

AES-Salinas-A PV, Salinas, P.R.

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4.0 METODOLOGÍA

Esta sección describe el procedimiento utilizado para llevar a cabo el estudio de flora y fauna y los criterios de selección para las áreas de estudio. Las investigaciones se llevaron a cabo de acuerdo a los procedimientos establecidos por el Departamento de Recursos Naturales y Ambientales de Puerto Rico (DRNA) y el Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS, por sus siglas en inglés), con evaluaciones de campo a lo largo de toda la Propiedad que contendrá el Proyecto. Se prestó atención especial a las áreas parcialmente forestadas y que mostraron mayor diversidad de flora y fauna.

4.1 REVISIÓN DE LITERATURA

Previo a la realización del estudio de flora y fauna se hizo una revisión de la literatura científica disponible sobre estudios previos en el área del Proyecto o su vecindad. También se hizo una consulta con el Inventario de Especies Críticas de la Oficina de Patrimonio Natural del DRNA. Dicho inventario incluye todas las especies protegidas por leyes estatales y federales, además de otras especies cuyas poblaciones sean bajas o que sean indicativas de habitáculos específicos dentro del Estado Libre Asociado de Puerto Rico. Esta información fue validada en el campo por medio de las visitas realizadas al área del Proyecto por parte de nuestro equipo de científicos. También se revisaron los mapas del Atlas del Índice de Sensitividad Ambiental (ESI Atlas, por sus siglas en inglés) de la Administración Oceánica y Atmosférica Nacional de Estados Unidos del año 2002 (NOAA, por sus siglas en inglés).

4.2 TRABAJO DE CAMPO

Se realizó una visita de reconocimiento con el fin de familiarizarse con las distintas áreas de la Propiedad así como para identificar los límites del predio. Dicha visita también sirvió para validar la información recopilada de diversos documentos y de los mapas de información geográfica (topográfico, foto aérea, suelos, humedales, planos de agrimensura y diseño, entre otros). Esta información fue analizada en conjunto permitiéndonos tener una mejor comprensión e imagen integral de las condiciones actuales de la Propiedad.

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El trabajo de campo se realizó durante el mes de abril del año 2021. El área del Proyecto fue recorrida en su totalidad sin tener que hacer uso de la metodología de cuadrantes o transeptos.

4.3 ANÁLISIS DE DATOS

La identificación de especies encontradas en la Propiedad se hizo principalmente en el campo. Aquellas especies que no se pudieron identificar en las visitas fueron identificadas en el laboratorio utilizando especímenes recolectados en el campo o mediante fotos tomadas durante las visitas. La identificación de plantas y animales se corroboró utilizando libros de referencia y guías de campo, tales como Little, Woodbury y Wadsworth (1974); Liogier (1985; 1988; 1991; 1995; 1997); Acevedo-Rodríguez y Woodbury (1985); Proctor (1989); Más y García-Molinari (2006); Raffaele et al.(1998), Rivero (1998); Little y Wadsworth (1999); Acevedo-Rodríguez (2003); Acevedo-Rodríguez y Strong (2005); Acevedo-Rodriguez (1996); y Axelrod (2011).

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5.0 RESULTADOS Y DISCUSIÓN

A continuación se presentan los resultados del Estudio. El **Anejo A** incluye documentación fotográfica del área estudiada.

5.1 FLORA

Dentro del área propuesta para el Proyecto se identificó un total de ciento treinta y uno (131) especies de plantas de entre cuarenta y siete (47) familias. La **Tabla 1** contiene el listado de flora dominante del área evaluada. Los terrenos propuestos evidencian haber sido deforestados en el pasado. Actualmente estos terrenos consisten en áreas de pastizales, arbustos, áreas aradas para la siembra y rodales de árboles, típicos de áreas previamente perturbadas y utilizadas en años pasados para la agricultura.

TABLA 1: INVENTARIO DE FLORA OBSERVADA.

SPP. ID	*Nombre Científico*	Nombre común	Familia
1	*Achyranthes aspera* L. *var. aspera*	Rabo de gato	Amaranthaceae
2	*Adelia ricinella* L.	Cotorro	Euphorbiaceae
3	*Albizia lebbeck* (L.) Benth.	Acacia amarilla	Mimosoideae
4	*Allamanda blanchetii* A. DC.	Canario morado	Apocynaceae
5	*Alysicarpus vaginalis* (L.) DC.	Yerba de contrabando	Papilionoideae
6	*Amaranthus dubius* Mart.	Bledo	Amaranthaceae
7	*Amaranthus dubius* Mart.	Bledo	Amaranthaceae
8	*Amaranthus spinosus* L.	Blero espinoso	Amaranthaceae
9	*Andira inermis* (W. Wr.) DC	Moca	Fabaceae
10	*Annona glabra* L.	Cayur	Annonaceae
11	*Argemone mexicana* L.	Cardo santo	Papaveraceae
12	*Arivela viscosa* (L.) Raf.	-	Cleomaceae
13	*Astraea lobata* (L.) A.	Croton lobulado	Euphorbiaceae
14	*Azadirachta indica* A. Juss.	Neem	Meliaceae
15	*Bastardia viscosa* (L.) HBK.	Escoba babosa	Malvaceae
16	*Bidens alba* (L.) DC. *var. radiata*	Margarita silvestre	Asteraceae
17	*Bougainvillea spectabilis* Willd.	Trinitaria	Nyctaginaceae
18	*Bursera simaruba* (L) Sarg.	Almacigo	Burseraceae
19	*Calotropis procera* (Aiton) W.T. Aiton	Algodon de seda	Asclepiadaceae
20	*Capraria biflora* Kunth.	Té del país	Scrophulariaceae
21	*Centrosema pubescens* Benth.	Flor de conchitas	Papilionoideae
22	*Chloris barbata* (L.) Sw.	Horquetilla morada	Poaceae
23	*Chloris radiata* (L.) Sw.	Grama de costa	Poaceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

SPP. ID	*Nombre Científico*	Nombre común	Familia
24	*Cissus trifoliata* L.	Bejuco de caro	Vitaceae
25	*Cissus verticillata* (L.) Nicholson & Jarvis	Bejuco de caro	Vitaceae
26	*Cleoserrata speciosa* (Raf.) Iltis, Novon	-	Cleomaceae
27	*Cleoserrata speciosa*(Raf.) Iltis, Novon	-	Cleomaceae
28	*Clitoria ternatea* L.	Bejuco de conchitas	Papilionoideae
29	*Colocasia esculenta* (L.) Schott	Malanga	Araceae
30	*Comocladia dodonea* (L.) Urban	Carrasco	Anacardiaceae
31	*Conocarpus erectus* L.	Mangle boton	Combretaceaae
32	*Cordia alliodora* (R. & P.) Oken	Capá prieto	Boraginaceae
33	*Cordia laevigata Lam.*	Capá colorado	Boraginaceae
34	*Croton flavens* L.	-	Euphorbiaceae
35	*Cryptostegia madagascariensis* Boyer	Canario morado falso	Asclepiadaceae
36	*Cucumis anguria* L.	Pepino silvestre	Cucurbitaceae
37	*Cuphea parsonsia* (L.) R. Br.	Chiagari	Lythraceae
38	*Cuscuta americana* L.	Bejuco de Mona	Convolvulaceae
39	*Cyanthillium cinereum* (L.) H. Rob.	Yerba socialista	Asteraceae
40	*Cynodon dactylon* (L.) Pers.	Bermuda común	Poaceae
41	*Cynophala flexuosa* (L.)	-	Capparaceae
42	*Cyperus involucratus* Rottb.	Paragüita	Cyperaceae
43	*Desmanthus virgatus* (L.) Willd.	Desmanto	Mimosoideae
44	*Digitaria eriantha* Steud.	Pangola	Poaceae
45	*Digitaria sanguinalis* (L.) Scop.	Pendejuelo	Poaceae
46	*Echinocloa colona* (L.) Link	Arrocillo	Poaceae
47	*Eclipta prostrata* (L.) L.	Eclipta blanca	Asteraceae
48	*Eleusine indica* (L.) Gaertn.	Pata de gallina	
49	*Euphorbia hyssopifolia* L.	Lechera	Euphorbiaceae
50	*Euphorbia prostata* Aiton.	Lechecillo	Euphorbiaceae
51	*Gossypium hirsutum* L.	Algodón	Malvaceae
52	*Gossypium hirsutum* L.	Algodón	Malvaceae
53	*Guarea guidonia* (L.) Sleumer	Guaraguao	Meliaceae
54	*Guazuma ulmifolia* Lam.	Guacima	Malvaceae
55	*Heliotropium indicum* L.	Yerba de cotorra	Boraginaceae
56	*Indigofera spicata* Forsk.	-	Fabaceae
57	*Ipomoea tiliacea* (Willd.) Choisy	Bejuco de puerco	Convolvulaceae
58	*Jasminun fluminense* Vell.	Jazmin de canario	Oleaceae
59	*Jatropha gossypiifolia* L.	-	Euphorbiaceae
60	*Lantana camara* L. *var. camara*	Cariaquillo	Verbenaceae
61	*Leucaena leucocephala* (Lam.) DeWit	Botón de cadete	Mimosoideae
62	*Ludwigia octovalvis* (Jacq.) Raven	Yerba de clavo	Onagraceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

SPP. ID	*Nombre Científico*	Nombre común	Familia
63	*Macfadyena unguis-cati* (L.) A. Gentry	Bejuco de gato	Bignoniaceae
64	*Macfadyena unguis-cati* (L.) A. Gentry	Bejuco de gato	Bignoniaceae
65	*Macroptilidium lathyroides* (L.) Urb.	Habichuela parada	Papilionoideae
66	*Malachra capitata* (L.) L.	Malvavisco	Malvaceae
67	*Malachra fasciata* Jacquin	Malva blanca	Malvaceae
68	*Megatyrsus maximus* (Jacq.)	Yerba de guinea	Poaceae
69	*Melia azedarach* L.	Alelaila	Meliaceae
70	*Melinis repens* (Willd.) Zizka	Yerba rosada	Poaceae
71	*Melinis repens (Willld.)*	Yerba rosada	Poaceae
72	*Melochia nodiflora* Sw.	Bretónica prieta	Sterculiaceae
73	*Melochia pyramidata* L.	Bretonica piramidal	Sterculiaceae
74	*Melothria pendula* L.	Pepinito	Cucurbitaceae
75	*Merremia quinquefolia* (L.) Hallier	Batatilla blanca	Convolvulaceae
76	*Mikania micrantha* HBK.	Guaco falso	Asteraceae
77	*Mimosa pigra* L.	Moriviví gigante	Mimosoideae
78	*Momordica charantia* L.	Cundeamor	Cucurbitaceae
79	*Muntingia calabura* L.	Capulín	Elaeocarpaceae
80	*Neptunia plena* (L.) Benth.	Desmanto amarillo	Fabaceae
81	*Paspalum virgatum* L.	Cortadero	Poaceae
82	*Petiveria alliacea* L.	Anamú	Phytolaccaceae
83	*Phyllanthus niruri* L.	Quinino del pobre	Phyllanthceae
84	*Phyllanthus urinaria* L.	-	Euphorbiaceae
85	*Physalis angulata* L.	Sacabuche	Solanaceae
86	*Pictetia aculeata* (Vahl) Urb.	Tachuelo	Papilionoideae
87	*Pisonia albida* (Heimerl) Britt. & Standley	Corcho	Nyctaginaceae
88	*Pithecellobium dulce* (Roxb.) Benth.	Guama americano	Fabaceae
89	*Pluchea odorata* (L.) Cass.	Salvia	Asteraceae
90	*Polygonum punctatum* Ell.	Yerba de hicotea	Polygonaceae
91	*Portulaca oleracea* L.	Verdolaga	Portulacaceae
92	*Prosopis juliflora* (Sw.) DC.	Bayahonda	Fabaceae
93	*Randia aculeata* L.	Tintillo	Rubiaceae
94	*Rauvolfia virdis*Roem.& Schult	Muñeco	Apocynaceae
95	*Rhynchosia minima* (L.) DC.	Frijolillo	Fabaceae
96	*Ricinus communis* L.	Higuereta	Euphorbiaceae
97	*Ruellia tuberosa* L.	-	Acanthaceae
98	*Samanea saman* (Jacq.) Merr.	Samán	Fabaceae
99	*Sesbania cericea* (Willd.) Link	Papagayo	Papilionoideae
100	*Sida acuta* Burm.	escoba blanca	Malvaceae
101	*Sida cordifolia* L.	Escoba acorazonada	Malvaceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

SPP. ID	*Nombre Científico*	Nombre común	Familia
102	*Sida glabra* Miller	Escobita dulce	Malvaceae
103	*Sida rhombifolia* L.	Escoba colorada	Malvaceae
104	*Sida urens* L.	-	Malvaceae
105	*Solanum americanum* Mill.	Yerba mora	Solanaceae
106	*Solanum torvum* Sw.	Berenjena cimarrona	Solanaceae
107	*Sorghum halepense* (L.) Pers.	Yerba Johnson	Poaceae
108	*Spathodea campanulata* Beauv.	Tulipan africano	Bignoniaceae
109	*Sphorobolus indicus* (L.) R. Br.	Cerrillo	Poaceae
110	*Spondias monbin* L.	Jobo	Anacardiaceae
111	*Sporobolus jacquemontii* Kunth	-	Poaceae
112	*Sterculia apetala* (Jacq.) Karst	Anacagüita	Sterculiaceae
113	*Stigmayphyllon emarginatum* (Cav.) A. Juss.	Bejuco de San Pedro	Malpighiaceae
114	*Symphyotrichum subulatum* (Michx.) *var parviflorum*		Asteraceae
115	*Tabebuia heterophylla* (DC.) Britton	Roble	Bignonaceae
116	*Tamarindus indica* L.	Tamarindo	Caesalpinioideae
117	*Terminalia buceras* (L.) C. Wright	Ucar	Combretaceaae
118	*Thespesia populnea* (L.) Solander ex Correa	Emajaguilla	Malvaceae
119	*Thumbergia fragrans* Roxb.	Susana blanca	Acanthaceae
120	*Tillandsia recurvata* (L.) L.	Nidos de gungulén	Bromeliaceae
121	*Trianthema portulacastrum* L.	Verdolaga de hoja ancha	Aizoaceae
122	*Trichilia hirta* L.	Cabo de hacha	Meliaceae
123	*Trichostigma octandrum* (L.) H. Walter	Bejuco de paloma	Phytolaccaceae
124	*Triumfetta rhomboidea* Jacq.	Cadillo	Tiliaceae
125	*Urena lobata* L.	Cadillo	Malvaceae
126	*Urochloa mossambicensis* (Hack.) Dandy	-	Poaceae
127	*Urochloa mutica* (Forssk.) T.Q.Nguyen	-	Poaceae
128	*Vachelia farnesiana* (L.) Willd. y Arn.	Aroma	Mimosoideae
129	*Vigna adenantha* (G. Mey.)	Habichuela vira	Papilionoideae
130	*Vigna luteola* (Jacq.) Benth.	Frijol silvestre	Papilionoideae
131	*Zanthoxylum martinicense* (Lam.) DC.	Espinosa	Rutaceae

Las especies más dominantes en el predio son la herbacea *Achyranthes aspera L. var. aspera* (Rabo de gato) y el árbol *Prosopis juliflora* (Bayahonda). Durante el estudio de campo no se encontró ninguna especie de flora considerada como crítica, amenazada o en peligro de extinción.

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5.2 FAUNA

En lo que respecta a la fauna del área del Proyecto, se observó un total de setenta (70) especies de fauna, siendo las aves el grupo dominante, de las cuales se identificó un total de cuarenta y cinco (44) especies. Las especies de aves más comunes dentro del predio son la Mozambique (*Quiscalus niger*) y el Pitirre Gris (*Tyrannus dominicensis*). También se observaron nueve (9) especies de reptiles, tres (3) de anfibios, dos (2) mamíferos y diez (10) especies de insectos. La **Tabla 2** incluye la lista de las especies de fauna observadas en el área del Proyecto.

TABLA 2: INVENTARIO DE FAUNA OBSERVADA.

Nombre Científico	**Nombre Común**	**Common Name**
AVES		
Actitis macularius	Playero Coleador	Spotted Sandpiper
Anthracothorax dominicus	Zumbador Dorado	Antillean Mango
Ardea alba	Garza Real	Great Egret
Ardea herodias	Garzón Cenizo	Great Blue Heron
Bubulcus ibis	Garza Ganadera	Cattle Egret
Buteo jamaicensis	Guaraguao Colirrojo	Red-tailed Hawk
Butorides virescens	Martinete Verde	Green Heron
Cathartes aura	Aura Tiñosa	Turkey Vulture
Charadrius semipalmatus	Chorlo Acollarado	Semipalmated Plover
Charadrius vociferus	Chorlo Sabanero	Killdeer
Chordeiles gundlachii	Querequequé Antillano	Antillean Nighthawk
Coccyzus americanus	Pájaro Bobo Pechiblanco	Yellow-billed Cuckoo
Coccyzus minor	Pájaro Bobo Menor	Mangrove Cuckoo
Coccyzus vieilloti	Pájaro Bobo Mayor	Puerto Rican Lizard-Cuckoo
Coereba flaveola	Reinita Común	Bananaquit
Columba livia	Paloma Doméstica	Rock Pigeon
Columbina passerina	Rolita	Common Ground-Dove
Crotophaga ani	Garrapatero	Smooth-billed Ani
Dendroica adelaidae	Reinita Mariposera	Adelaide's Warbler
Dendroica discolor	Reinita Galana	Prairie Warbler
Dendroica dominica	Reinita Gargantiamarilla	Yellow-throated Warbler
Elaenia martinica	Jui Blanco	Caribbean Elaenia
Eulampis holosericeus	Zumbadorcito de Pecho Azul	Green-throated Carib
Falco sparverius	Falcón Común	American Kestrel

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CONTINUACIÓN DE TABLA 2: INVENTARIO DE FAUNA OBSERVADA.

Nombre Científico	Nombre Común	Common Name
Icterus icterus	Turpial	Venezuelan Troupial
Margarops fuscatus	Zorzal Pardo	Pearly-eyed Thrasher
Melanerpes portoricensis	Carpintero de Puerto Rico	Puerto Rican Woodpecker
Mimus polyglottos	Ruiseñor	Northern Mockingbird
Molothrus bonariensis	Tordo Lustroso	Shiny Cowbird
Myiarchus antillarum	Jui de Puerto Rico	Puerto Rican Flycatcher
Myiopsitta monachus	Perico Monje	Monk Parakeet
Parula americana	Reinita Pechidorada	Northern Parula
Petrochelidon fulva	Golondrina de Cuevas	Cave Swallow
Quiscalus niger	Mozambique	Greater Antillean Grackle
Seiurus motacilla	Pizpita de Río	Louisiana Waterthrush
Seiurus noveboracensis	Pizpita de Mangle	Northern Waterthrush
Tiaris bicolor	Gorrión Negro	Black-faced Grassquit
Tiaris olivacea	Gorrión Barba Amarilla	Yellow-faced Grassquit
Todus mexicanus	San Pedrito	Puerto Rican Tody
Tyrannus dominicensis	Pitirre Gris	Gray Kingbird
Vireo altiloquus	Vireo Julián Chiví	Black-whiskered Vireo
Zenaida asiatica	Tórtola Aliblanca	White-winged Dove
Zenaida aurita	Tórtola Cardosantera	Zenaida Dove
Zenaida macroura	Tórtola Rabilarga	Mourning Dove
ANPHIBIA		
Bufo marinus	Sapo Común	Cane Toad
Eleutherodactylus antillensis	Coquí Churí	-
Leptodactylus albilabris	Ranita de Labio Blanco	White-lipped Frog
REPTILIA		
Ameiva exsul	Siguana Común	Puerto Rican Common Ameiva
Anolis cristatellus cristatellus	Lagartijo Común	Common Anole
Anolis krugi	Lagartijo Jardinero de la Montaña	Mountain Garden Lizard
Anolis pulchellus	Lagartijo de Jardín	Grass Anole
Anolis stratulus	Lagartijo Manchado	Painted Anole
Ctenonotus poncensis	Lagartijo Jardinero del Sur	Ponce's Grass Anole
Iguana iguana	Iguana Verde	Green Iguana
Sphaerodactylus macrolepis ateles	Salamanquita Común	Common Puerto Rican Gecko
Trachemys stejnegeri	Jicotea de Puerto Rico	Puerto Rican Slider

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Nombre Científico	**Nombre Común**	**Common Name**
INSECTA		
Agraulis vanillae	Mariposa	Gulf fritillary
Apis melifera	Abeja	Bee
Argiope argentata	Araña plateada	Silver spider
Danaus plexippus	Mariposa monarca	Monarch butterfly
Erythemis vesiculosa	Libélula	Great Pondhawk
Erythrodiplax umbrata	Libélula	Band-winged dragonlet
Ischnura ramburii	Caballito de San Pedro	Rambur's forktail
Nasutitermes costalis	Comején	Termite
Orochalis vaginalis	Grillo	
Schistocerca americana	Saltamonte	American bird grasshopper
MAMMALIA		
Herpestes auropunctatus	Mangosta	Indian Mongoose
Rattus norvegicus	Rata	Brown Rat
ARTHROPODA		
Cardisoma guanhumi	Juey Común	Land crap

Por otro lado durante los trabajos de campo, se observaron dos especímenes que podrían ser de la especie del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Sin embargo, por la movilidad rápida del reptil no se pudo confirmar que sea dicha especie. Dicha especie fue registrada en estudios previos realizados para el proyecto agrícola de Mycogen Seeds, dentro de la propiedad pero fuera del predio evaluado para el proyecto fotovoltaico.

5.3 REVISIÓN DE LITERATURA

Los mapas de especies críticas, amenazadas o en peligro de extinción de la Oficina de Patrimonio Natural del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico y los Mapas del Atlas del Índice de Sensitividad Ambiental (ESI Atlas, por sus siglas en inglés) de la Administración Oceánica y Atmosférica Nacional de Estados Unidos del año 2002 (NOAA, por sus siglas en inglés) no muestran localidades conocidas en el predio que contendrá el Proyecto con especies críticas, amenazadas, vulnerables, en peligro de extinción o con designación especial. En el **Anejo B** se incluye el ESI para el área de estudio. Durante la revisión de documentación ambiental del proyecto agrícola (Mycogen Seeds) que operó en la finca matriz donde se localiza el predio que contendrá el proyecto, se identificó Lagartijo Jardinero del Sur (*C. poncensis*), sin embargo su localidad fue fuera del predio evaluado.

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6.0 SÍNTESIS Y RECOMENDACIONES

El área de estudio está localizada en una zona de vida clasificada como bosque seco subtropical (Ewel & Whitmore, 1973). Sin embargo, la vegetación dominante no presenta las condiciones y características naturales de este tipo de zona de vida debido a los usos pasados del terreno, como actividades agrícolas y otros disturbios antropogénicos, que han contribuido con la deforestación del área.

Los terrenos evaluados evidencian haber sido perturbados y utilizados recientemente para la agricultura y estos poseen una baja biodiversidad. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017.

Como parte del desarrollo del Proyecto de Mycogen Seeds, y en cumplimiento con la Ley 241 del 15 de agosto de 1999, para establecer la Nueva Ley de Vida Silvestre de Puerto Rico, algunas áreas fueron designadas como Servidumbres de Conservación a favor del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico, dichas áreas consisten en áreas de quebradas, canales, humedales, una parcela de mitigación de humedales y colinas; algunas de estas dentro del predio propuesto para el proyecto y otras fuera. Dichas áreas deberán estar fuera de la huella de desarrollo de cualquier proyecto futuro. Se recomienda obtener el plano oficial de inscripción de las parcelas designadas como Servidumbre de Conservación para garantizar su protección y como herramienta para el diseño y planificación del proyecto.

Por otro lado durante los trabajos de campo, se observaron dos especímenes que podrían ser de la especie del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Sin embargo, por la movilidad rápida del reptil no se pudo confirmar que sea dicha especie. Las localidades con la potencial presencia del *C. poncensis* corresponden a un área forestada entre dos colinas al norte del predio que se incluyeron en el borrador del plano de inscripción de la Servidumbre de Conservación antes mencionada como Parcela #8 (288.8824 cuerdas) y en un área forestada asociada y localizada en el extremo norte de la Quebrada Aguas Verdes, la cual discurre por el extremo noroeste del predio y la cual no fue incluida dentro de la Servidumbre de Conservación. Ninguna otra de las especies de flora o fauna identificadas posee designación especial.

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Si se considera desarrollar los terrenos adyacentes a la Quebrada Aguas Verdes se recomienda realizar un estudio de búsquedas específicas de *Ctenonotus poncensis* para confirmar o descartar su presencia en dicha localidad. Por otro lado, otra opción en el caso que se propongan trabajos en las áreas adyacentes a la Quebrada Aguas Verdes es preparar e implementar un protocolo de protección, manejo y conservación del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) especialmente durante las actividades de remoción de capa vegetal y movimiento de tierra, el cual deberá incluir entre las tareas la obtención de un permiso de captura y relocalización de la especie. Luego de implementado dicho protocolo, no se espera que se impacten especies de flora y fauna consideradas como especies críticas, amenazadas o en peligro de extinción.

Debido a que la otra localidad con la potencial presencia de la especie se ubica en áreas designadas como Servidumbre de Conservación a favor del DRNA no se prevén impactos a *C. poncensis* en dicha localidad; sin embargo se debe confirmar que dicha localidad en efecto es parte de la Servidumbre de Conservación inscrita a favor del DRNA. Basado en lo anterior, no se espera que el Proyecto impacte áreas de alto valor ecológico.

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ANEJOS

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ANEJO A:

DOCUMENTACIÓN FOTOGRÁFICA

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Foto 1: Vista típica del área de estudio.



Foto 2: Vista típica del área de estudio.

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Foto 3: Vista típica del área de estudio.



Foto 4: Vista típica del área de estudio.

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Foto 5: Vista típica del área de estudio.



Foto 6: Vista típica del área de estudio.

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Foto 7: Vista típica del área de estudio.



Foto 8: Vista típica del área de estudio.

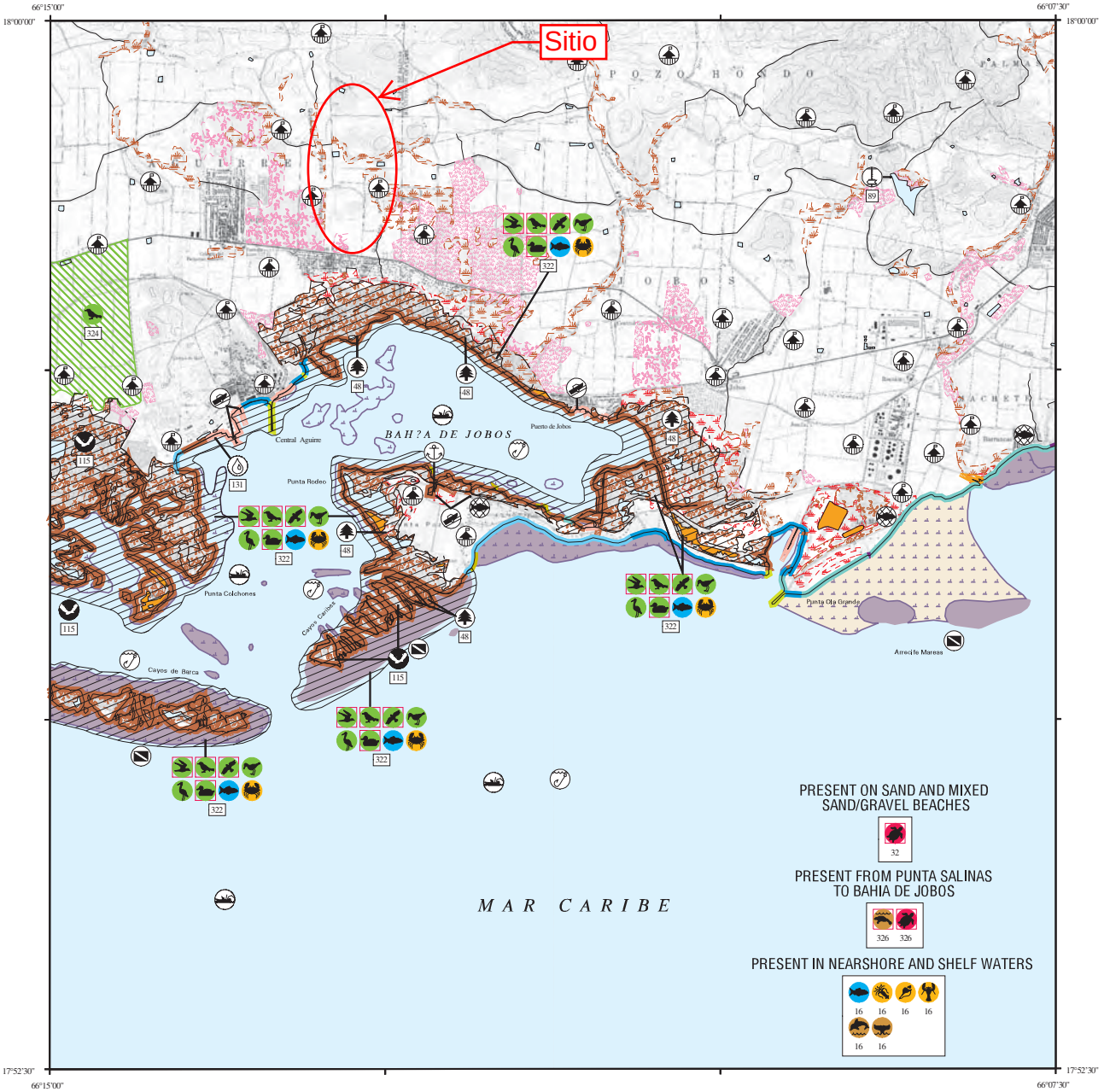
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ANEJO B:

MAPA DEL ATLAS DE ÍNDICE DE SENSITIVIDAD AMBIENTAL DE LA NOAA

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ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY CLIFFS
- 1B EXPOSED, SOLID MAN–MADE STRUCTURES
- 2A EXPOSED WAVE–CUT PLATFORMS IN BEDROCK
- 2B SCARPS AND STEEP SLOPES IN MUDDY SEDIMENTS
- 3A FINE– TO MEDIUM–GRAINED SAND BEACHES
- 4 COARSE–GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN–MADE STRUCTURES
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED VEGETATED LOW BANKS
- 10D MANGROVES
- SALT– AND BRACKISH–WATER MARSHES
- FRESHWATER MARSHES
- FRESHWATER SWAMPS
- FRESHWATER SCRUB/SHRUB

STREAM REACHES (RSI)

- 1 QUIET POOL; LOW–SENSITIVE BANKS
- 2 STRAIGHT CHANNEL WITH CURRENTS; LOW–SENSITIVE BANKS (MUD DOMINANT)
- 3 MEANDERING CHANNEL; SAND POINT BARS
- 4 MEANDERING CHANNEL; VEGETATED POINT BARS
- 5 RAPIDS OVER BEDROCK
- 6 MEANDERING CHANNEL; SAND AND GRAVEL POINT BARS
- 7 SPLIT CHANNEL WITH COARSE GRAVEL; SOME RAPIDS
- 8 SMALL FALLS; BOULDERS IN CHANNEL
- 9 LARGE FALLS; BOULDERS IN CHANNEL
- 10 CHANNELS WITH ASSOCIATED VULNERABLE WETLANDS
- KARST

N W E S

SCALE 1:55000

1 .5 0 1 KILOMETER

1 .5 0 1 MILE

Not For Navigation
Published: May 2000

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division

CENTRAL AGUIRRE, P.R (1982) PR-63

PUERTO RICO - ESIMAP 63

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting
322	American coot			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Black-necked stilt						X	X	X	X	X	X	X	X			APR-OCT
	Blue-winged teal			HIGH	X	X	X	X						X	X	X	-
	Brown pelican	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Caribbean coot	S	T	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Clapper rail			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common moorhen			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common snipe			HIGH	X	X	X	X						X	X	X	-
	Least tern	S	T						X	X	X	X	X				-
	Peregrine falcon	S	E		X	X	X	X						X	X	X	-
	Puerto Rican plain pigeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN
	Shorebirds			HIGH	X	X	X	X	X			X	X	X	X	X	-
	Sora			LOW	X	X	X	X						X	X	X	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL
	White-cheeked pintail			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN
	White-crowned pigeon				X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
	Yellow-shouldered blackbird	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
324	Mourning dove				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG
	White-winged dove				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC
	Zenaida dove				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC

FISH:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Reef fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
322	Nursery fish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-DEC	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	Caribbean spiny lobster				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Octopus				X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	-	JAN-DEC	JAN-DEC
	Queen conch				X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
322	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving
16	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X	-	-
	Whales				X	X	X	X	X	X	X	X	X	X	X	X	-	-
326	West Indian manatee	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
32	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Leatherback sea turtle	S/F	E/E			X	X	X	X	X	X	X					FEB-JUN	APR-SEP	-	APR-SEP	FEB-JUN
326	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

HUN#	Name	Owner/Manager	Contact	Phone
FOREST:				
48	BOSQUE AGUIRRE	DRNA	DIVISION DE MANEJO BOSQUES ESTATALES	787/721-5495
LOCK AND DAM:				
89	MELANIA DAM	ESTADO LIBRE ASOCIADO	ING. LUIS SUAREZ	787/864-0300
MARINE SANCTUARY:				
115	BAHIA DE JOBOS NERR	NOAA/DRNA	RESERVE MANAGER	787/853-4617

WATER INTAKE:

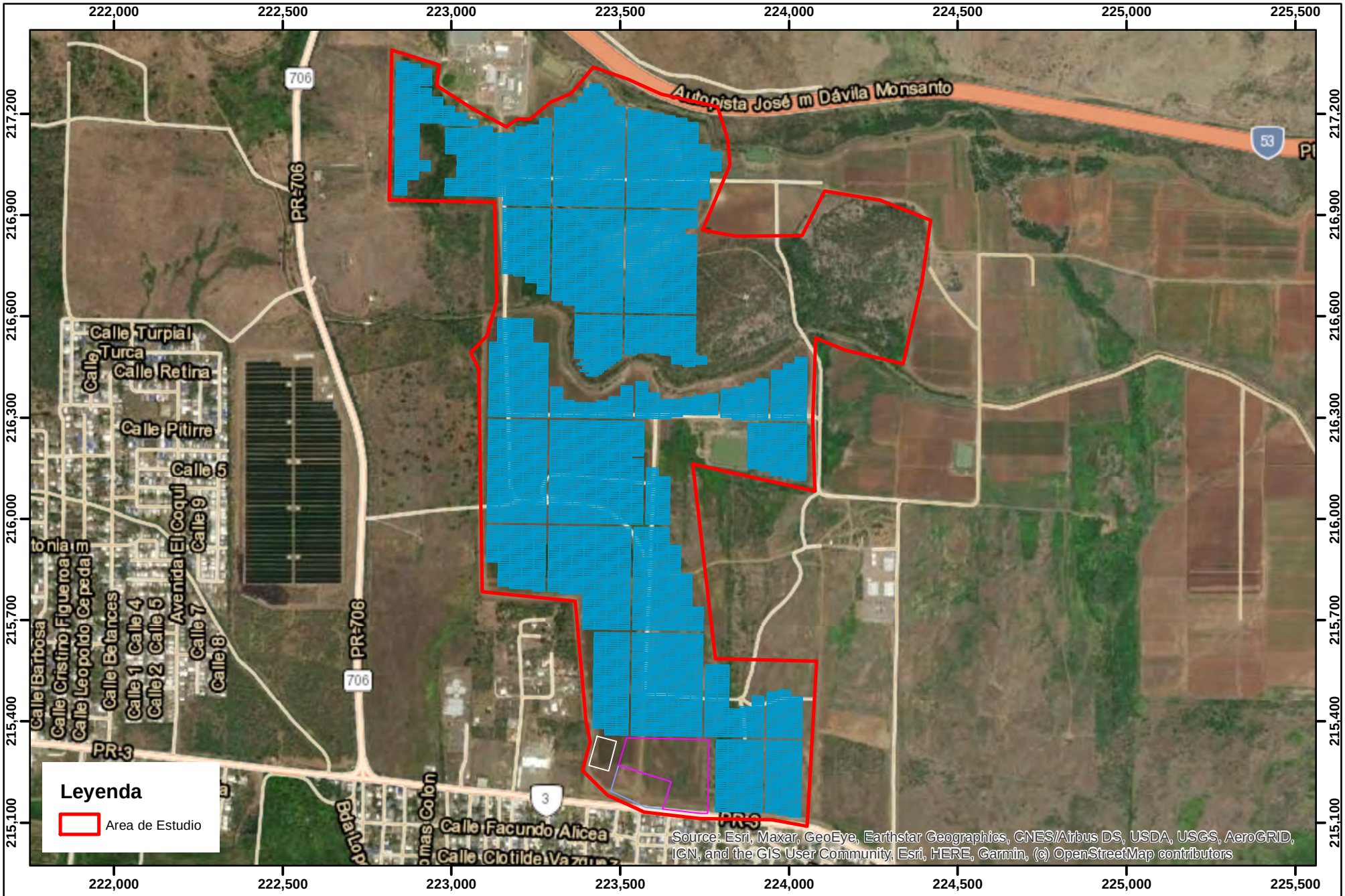
HUN#	Name	Owner/Manager	Location	Phone
131	AGUIRRE POWER PLANT	PREPA AGUIRRE		787/853-4700

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

ANEJO B:

PLANO DEL PROYECTO.

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1:15,000

480 240 0 480 Meters

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

Proyecto Propuesto

AES-Salinas-A PV - Salinas, PR

N W E S

Date: 4/15/2021

PMC AND ASSOCIATES

Document Path: M:\29409-AES-Salinas-PV\GIS\MXD\29409-PS.mxd

GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

AUG 1 2 2021

ING PEDRO M GARCÍA CAMPOS
P O BOX 669
CAGUAS, PR 00726

Estimado ingeniero García Campos:

Certificación para Categorización de
Hábitats Naturales para la Vida Silvestre
Sistema Fotovoltáico Salinas B
Carr. PR-706. km 2.3
Bos. Aguirre, Salinas, & Jobos, Guayama
O-SE-CCH01-SJ-01947-04082021

El Departamento de Recursos Naturales y Ambientales (DRNA) evaluó una Solicitud de Certificación para Categorizaciónn de Hábitats Naturales para la Vida Silvestre para el proyecto de epígrafe. La misma fue evaluada de acuerdo con las disposiciones aplicables relacionadas con la fauna, la flora y sus hábitats de la Ley 416 del 2004, según enmendada (*Ley Sobre Política Pública Ambiental*), su Reglamento 8762 de 2019 (*Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios*), la Ley 23 del 1972, según enmendada (*Ley Orgánica del Departamento de Recursos Naturales y Ambientales de Puerto Rico*), la Ley 150 de 1988, según enmendada (*Ley del Programa de Patrimonio Natural de Puerto Rico*), la Ley 314 de 1998 (*Ley para Declarar la Política Pública sobre Humedales y Designación de Caño Tiburones como Reserva Natural*), la Ley 292 del 1999 (*Ley para la Protección de la Fisiografía Cársica de Puerto Rico*) y su Reglamento 8486 de 2014 (*Plan y Reglamento del Área de Planificación Especial del Carso*) y la Ley 241 del 1999, según enmendada (*Nueva Ley de vida silvestre de Puerto Rico*) y sus Reglamentos 6765 de 2004 (*Reglamento para regir la conservación y el manejo de la vida silvestre, las especies exóticas y la caza en el Estado Libre Asociado de Puerto Rico*) y 6766 del 2004 (*Reglamento para regir las especies vulnerables y en peligro de extinción en el Estado Libre Asociado de Puerto Rico*), así como de la Orden Administrativa del DRNA 2010-09 y el *Puerto Rico State Wildlife Action Plan* del DRNA, adoptado en Septiembre, 2015. En cuanto al Inventario de flora y fauna incluido en la solicitud, encontramos que cumplió satisfactoriamente con las disposiciones aplicables de la Ley 416 del 2004, *supra*, y su Reglamento 8762, *supra*, documentando de forma representativa la flora y la fauna del lugar.

El predio del proyecto ocupa unas 559 cdas. Es un predio rural agrícola abandonado, ocupado mayormente por pastos con algunos árboles y arbustos de especies nativas comunes y exóticas

invasoras, aunque existen porciones de la propiedad donde aparenta haber remanentes de bosque seco (en el extremo noroeste, en el norte central y en el este). La Quebrada Amorós cruza la esquina noroeste del predio de norte a sur y por el cento de la propiedad hace lo mismo una quebrada intermitente sin nombre. El Inventario Nacional de Humedales clasifica la mayor parte de la finca como humedales palustrinos y estuarinos y el Inventario de Flora suplido por el proponente reporta varias especies asociadas a humedales; lo que significa que aunque el predio ha siso utilizado en el pasado como área de cultivo, algunas áreas conservan las funciones de humedal. Se reporta la presencia de dos individuos de la mariquita (*Agelaius xanthomus*), ave clasificada **EN PELIGRO DE EXTINCIÓN** posadas sobre una estructura abandonada al noroeste de la propiedad. Las áreas arboladas asociadas a las quebradas son hábitats del lagartijo jardinero del sur (*Ctenonotus poncensis*), especie clasificada como **VULNERABLE.** Se propone la construcción de una planta de producción de energía eléctrica por medio del uso de placas fotovoltáicas.

Como resultado de dicha evaluación, hemos categorizado las porciones forestadas del noroeste del predio alrededor de la Quebrada Amorós, localizadas entre las estructuras abandonadas donde se reportó la mariquita y el límite occidental del predio del proyecto, las áreas arboldas del centro norte y este, asi como los humedales sitos en la propiedad, como un **Hábitat Natural de Valor Ecológico (Categoría 4)**. El Artículo 2,03 del Reglamento 6765, supra, establece lo siguiente para esta Categoría:

'La meta de la mitigación es que no haya pérdida en la cantidad y calidad del hábitat a protegerse. El Departamento deberá actuar para proteger el hábitat recomendando o exigiendo:

1. Evitar el impacto mediante alternativas al proyecto propuesto.

2. De ser inevitable el impacto, la mitigación se realizará mediante la cesión de hábitat similar in situ, adyacente o fuera del área a impactarse de manera que no haya pérdida neta de la cantidad o calidad del hábitat existente antes del impacto propuesto. Las mitigaciones se realizarán con terrenos de igual o mayor valor ecológico en proporción de cantidad no menor de 1:1.

3. De no ser posible cumplir con los requisitos anteriores, el Departamento no endosará la acción propuesta.

Por otro lado, hemos categorizado el resto del predio como **Hábitat Natural con Bajo Potencial de Convertirse en Hábitat Esencial, Hábitat de Alto Valor Ecológico o Hábitat de Valor Ecológico (Categoría 6).** El Artículo 2.03 del Reglamento 6765, supra, establece lo siguiente para esta categoría:

"La meta de la mitigación es minimizar el impacto al hábitat. El Departamento deberá actuar para alcanzar las metas de la mitigación de hábitat recomendando o exigiendo acciones que minimicen la pérdida directa de hábitat y que evite impacto a otro hábitat fuera del área a impactarse."

AUG 1 2 2021

Para determinar el área del proyecto que requerirá mitigación, deberá

1. Preparar y someter para su aprobación en el Cuerpo de Ingenieros del Ejército de los EEUU (COE) una solicitud de Determinación de Jurisdicción de Humedales. Deberá hacernos llegar copia de la Determinación aprobada por el COE.

2. Deberá someter al DRNA copia de un plano legible de la finca del proyecto propuesto donde aparezcan las estructuras a construirse o instalarse como parte del proyecto, las quebradas, las áreas de humedal y las áreas arboladas que se han mencionado arriba.

Para determinar la mitigación que correspondería, deberá presentar en la Oficina de Gerencia de Permisos (OGPe) una recomendación, para que esta, a su vez, sea referida al DRNA. En esta instancia se evaluará el proyecto en todos sus méritos y el DRNA le notificará a la OGPe y a usted su determinación en conformidad a lo establecido en la Ley Num. 241, supra, y en las disposiciones del Articulo 1.5 (72) de la Ley 161 del 2009 (Ley para la Reforma del Proceso de Permisos de Puerto Rico).

Este documento es una calificación de los hábitats naturales sitos en el predio de epígrafe, requerida por los estatutos legales vigentes. **No constituye un permiso para la construcción u operación del proyecto propuesto.**

Esta certificación es solamente aplicable a la situación de hechos según presentados y evaluados en el caso y el Secretario se reserva el derecho de evaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o la acción administrativa correspondiente por parte de la agencia solicitante o proponente, de surgir nueva información oficial especifica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente o cuando la certificación original se emitió bajo premisas falsas o fraudulentas.

Si tiene alguna pregunta o necesita orientación sobre este asunto, puede escribirnos a la dirección indicada o comunicarse al teléfono 787-999-2200 extension 2846.

Cordialmente,

Luis R. Sierra Torres
Secretario Auxiliar
Secretaría Auxiliar de Permisos, Endosos y Asuntos Especializados

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES

APR 0 6 2022

ING PEDRO M GARCÍA CAMPOS
P O BOX 669
CAGUAS, PR 00726

Estimado ingeniero García Campos:

MITIGACIÓN
Certificación para Categorización de
Hábitats Naturales para la Vida Silvestre
Sistema Fotovoltáico Salinas B
Carr. PR-706. km 2.3
Bos. Aguirre, Salinas, & Jobos, Guayama
O-SE-CCH01-SJ-01947-04082021

El 4 de agosto de 2021 fue radicada en nuestra Oficina de Secretaría la solicitud de epïgrafe. Luego de la evaluación correspondiente, el 12 de agosto de ese año este Departamento emitió dicha certificación.

Como resultado de la evaluación, se categorizaron las porciones forestadas del noreste del predio alrededor de la Quebrada Amorós, localizadas entre las estructuras abandonadas donde se encontró la mariquita[1] y el límite occidental del predio, en el norte y este del predio, asï como los humedales palustrinos existentes, como **Habitats Naturales de Valor Ecológico (Categoria 4)**. El Articulo 2.03 del Reglamento 6765 de 2004 (*Reglamento para regir la conservación y el manejo de la vida silvestre, las especies exóticas y la caza en el Estado Libre Asociado de Puerto Rico*), establece lo siguiente para esta Categoría:

"La meta de la mitigación es que no haya perdida en la cantidad y calidad del hábitat a protegerse. El Departamento deberá actuar para proteger el hábitat recomendando o exigiendo:

1. Evitar el impacto mediante alternativas al proyecto propuesto.
2. De ser inevitable el impacto, la mitigación se realizara mediante la cesión de hábitat similar in situ, adyacente o fuera del área a impactarse de manera que no haya perdida neta de la cantidad o calidad del hábitat existente antes del impacto propuesto. Las mitigaciones se realizaran con terrenos de igual o mayor valor ecológico en proporción de cantidad no menor de 1:1.

[1] *Agelius xanthomus* – ave designada EN PELIGRO DE EXTINCIÓN

APR 0 6 2022

3. De no ser posible cumplir con los requisitos anteriores, el Departamento no endosara la accion propuesta."

En su carta del 18 de marzo de 2022, se establece que el proyecto ha sido rediseñado para no afectar estas áreas de valor ecológico, por lo tanto no se impondrán mitigaciones por los mismos. Sin embargo, se le adviene en conocimiento que, de haber algún impacto a las mismas, el Departamento podría imponer las mitigaciones correspondientes.

Si tiene alguna pregunta o necesita orientación sobre este asunto, puede escribirnos a la dirección indicada o comunicarse al teléfono 787-999-2200 extension 2846.

Cordialmente,

Luis R. Sierra Torres
Secretario Auxiliar
Secretaría Auxiliar de Permisos, Endosos y Asuntos Especializados

REV. DIC-2011

Número de Secretaría

_____

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES
P.O. BOX 366147, SAN JUAN PR 00936

SOLICITUD PARA CERTIFICACIÓN DE CATEGORIZACIÓN DE HÁBITATS NATURALES PARA LA VIDA SILVESTRE

Tipo de solicitud:

X **Nueva**

_____ **Enmienda o Información Adicional** **Número de certificación anterior**: _____

1. **Nombre del peticionario**:
Garcia (Apellido paterno) Campos (Apellido materno) Pedro (Nombre) M. (Inicial)

2. **Profesión**: Ingenierro Licencia profesional**:** _____

3. **Dirección física**: #12 calle Acosta Caguas PR 00725

4. **Dirección postal**: P.O. Box 669, Caguas PR 00726

5. **Teléfono Residencial**: _____ **6. Teléfono del Trabajo**: (787) 743-4761

7. **Teléfono celular:** _____ **8. Correo electrónico (e-mail):** pmgarcia@pmggroupllc.com

8. **Número de fax:** _____

9. **Nombre del agente, consultor o representante autorizado (incluir carta de autorización):**
Walter E. Soler Figueroa

---

10. **Nombre del propietario o titular del terreno del proyecto:**
Clean Flexible Energy LLC, subsidiaria de AES Corporation
Apellido paterno **Apellido materno** **Nombre** **Inicial**

11. **Dirección física**: PR-3 Km.153 (R7707) Sector Parque Industrial Jobos, Municipio de Guayama

12. **Dirección postal:** P.O. Box 669, Caguas PR 00726

13. **Teléfono residencial**: _____ **14. Teléfono del Trabajo**: _____

15. **Teléfono celular:** _____ **16. Correo electrónico (e-mail):** _____

17. **Número de fax:** _____

Información del lugar del proyecto:

18. Dirección física: PR-706 (Núm. Carretera) Km 2.3 (Km Hm) Aguirre/Jobos (Sector) Salinas/Guayama (Barrio) (Municipio)

19. Zonificación del terreno: Zona Industrial 20. Cabida total: 558.97 CUERDAS

20. Coordenadas Lambert (Centroide-NAD83) X: 17.9872958° Y: -66.2109964°

21. Descripción del acceso al predio del proyecto (dónde está localizado, cómo se llega, a quién hay que contactar para entrar, hay perros guardianes, hay portones o cercas que impiden el paso, hay caminos/carreteras de acceso, etc):_____

22. Requisitos para la radicación de esta Solicitud[1]:

Deberá cumplir con lo siguiente:

a. Solicitar copia de este formulario en la Oficina de Secretaría del Departamento y cumplimentarla adecuadamente. Asegúrese que con el formulario recibe una copia del documento titulado *"Criterios para la designación de hábitat natural en Puerto Rico mediante mitigación a través de la compra de terrenos y cesión de éstos al Departamento de Recursos Naturales y Ambientales"*. Este documento le explica cómo se establece la designación de un hábitat para efectos de la Ley 241.

b. Al radicar esta Solicitud debidamente cumplimentada en la Oficina de Secretaría del DRNA, la misma deberá estar acompañada de un escrito con la siguiente información:

i. Descripción y localización de la finca del proyecto bajo evaluación.

ii. Inventario reciente de la fauna y flora del lugar de la obra, resaltando la presencia, si alguna, de especies raras, vulnerables o en peligro de extinción o que constituyan elementos críticos de vida silvestre según las listas del DRNA o del gobierno federal.

iii. Descripción de las metodologías utilizadas para efectuar el inventario.

iv. Presencia en la finca de cuerpos de agua, pozos de agua potable, humedales, bosques, cuevas, mogotes, sumideros, descargas de aguas usadas o pluviales, playas, dunas de arena, guajonales, etc..

v. Descripción de los hábitats naturales de alto valor ecológico presentes en la finca del proyecto propuesto. Descripción de los impactos reales o potenciales del proyecto propuesto sobre estos sistemas o cualquier otro de valor natural presente.

vi. Descripción resumida de las actividades humanas pasadas realizadas en el predio del proyecto propuesto, particularmente aquéllas que hayan causado impactos permanentes.

vii. Copia legible de mapa topográfico 1:20,000 dónde se señale claramente la localización de la finca del proyecto propuesto.

viii. Foto aérea dónde se señale claramente la localización de la finca del proyecto propuesto.

ix. Plano de la finca del proyecto (en coordenadas NAD83) dónde se señale detalladamente la huella de impacto de la obra propuesta.

x. Determinación de la Categoría de Hábitat Natural que se recomienda para la finca del proyecto propuesto a tenor con la información sometida y las disposiciones de la Ley 241 y sus reglamentos.

xi. Descripción del área propuesta para mitigación, según la Categoría de Hábitat Natural recomendada y las disposiciones de la Ley 241 y sus reglamentos.

AUTORIZO AL PERSONAL DEL DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES, DEBIDAMENTE IDENTIFICADO, A ENTRAR A INSPECCIONAR LA PROPIEDAD QUE AQUÍ SE SEÑALA DE SER NECESARIO PARA EVALUAR ESTA SOLICITUD. ADEMÁS, CERTIFICO QUE LA INFORMACIÓN QUE SE SOMETE EN ESTA SOLICITUD Y EN LOS DOCUMENTOS QUE LA ACOMPAÑEN ES CORRECTA, SEGÚN MI MEJOR SABER Y ENTENDER.

Walter E. Soler Figueroa	_____	3-08-21
Nombre del peticionario o representante autorizado	**Firma**	**Fecha (DD-MM-AA)**

Para uso de la Oficina de Secretaría

_____

Firma del funcionario que recibe la solicitud

1 Estos requisitos se desprenden de la Ley 241 del 15 de agosto de 1999 ("Nueva Ley de Vida Silvestre de Puerto Rico"), de los Reglamentos de Vida Silvestre Núms. 6765 y 6766 y de la Orden Administrativa Núm 2010-09.

AMBIENTA INC.
Environmental Consultants

11 de junio de 2021

Luis Sierra
Secretario Auxiliar de Permisos, Endosos y Servicios Especializados
Departamento de Recursos Naturales y Ambientales

SOLICITUD PARA CERTIFICACIÓN DE CATEGORIZACIÓN DE HÁBITATS NATURALES PARA LA VIDA SILVESTRE. PROYECTO DE SISTEMA SOLAR-FOTOVOLTAICO AES SALINAS B, SALINAS-GUAYAMA, PUERTO RICO.

Estimado Sr. Sierra:

Clean Flexible Energy, LLC (Dueño) propone la construcción de un sistema solar fotovoltaico para proveer energía renovable a la red de distribución de la Autoridad de Energía Eléctrica de PR (AEE). El predio, denominado AES Salinas B comprende aproximadamente de unas 558.97 cuerdas (2,197,210 metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico.

El Dueño se encuentra en el proceso de negociación de un contrato de compra de energía con la Autoridad de Energía Eléctrica (AEE), en donde el Dueño será responsable de construir, operar y suplir la energía eléctrica producida por el sistema fotovoltaico para suministrarla como energía suplementaria a la AEE.

PMG Associates, Inc. presenta para consideración, la documentación necesaria para obtener la *Certificación de la Categorización de Hábitats Naturales para la Vida Silvestre* para el área donde se propone el "Sistema solar-fotovoltaico" (en adelante, el Proyecto).

A continuación, se presenta la información requerida en el formulario de la solicitud.

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
T. (787) 510-7031 / T. (787) 732-0907
FAX (787) 732-6137 / ambienta@caribe.net

i. Descripción y localización de la finca del proyecto bajo evaluación:

El predio comprende aproximadamente de unas 558.97 cuerdas (2,197,210 metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico. El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna terrestre en el cual se pueden observar varios mapas del área, entre éstos, la Figura 1 con el mapa del cuadrángulo topográfico mostrando la ubicación del Proyecto. En el área de estudio se identificaron cinco asociaciones vegetales, estas son: pastizales no manejados, áreas de arbustos y matorrales, áreas aradas para la siembra, áreas sembradas y áreas forestadas. El área de estudio se encuentra en un área de baja biodiversidad que fue previamente perturbada y utilizada en años pasados para la agricultura.

ii. Descripción de las metodologías utilizadas para realizar el inventario:

El **Anejo A** de este memorando contiene el estudio de flora y fauna realizado en el área que contendría el Proyecto, y en éste se describe la metodología utilizada para la realización del inventario de flora y fauna. En general, después de una revisión de la literatura para la zona se realizó un muestreo sistemático mediante el recorrido y evaluación de toda el área de construcción del Proyecto.

iii. Presencia de cuerpos de agua, pozos de agua potable, humedales, bosques, cuevas, mogotes, sumideros, descargas de aguas usadas o pluviales, playas, dunas de arena, guajonales, etc. en la finca:

Basado en la información evaluada y en la inspección y reconocimiento del área que contendría el Proyecto no se observaron cuevas, sumideros, playas, dunas de arena o guajonales. Sin embargo se observaron estructuras que podrían ser pozos de agua para riego. Además se encontraron áreas que podrían ser catalogadas como humedales. Estas aéreas están asociadas a la Quebrada Amorós que cruza el área de estudio por la parte este y a una quebrada efímera sin nombre que cruza el área de estudio de norte a sur por el centro. Las áreas de humedal asociadas a la Quebrada Amorós y a la quebrada sin nombre aparentan estar inscritas como Servidumbre de Conservación a favor del DRNA como parte del proceso de permisos y endosos del dueño anterior del terreno, en donde Mycogen Seeds operó un proyecto agrícola en el predio aproximadamente entre los años 2012 y 2017.

Aunque algunas áreas pudieran cumplir con los criterios para ser catalogadas como humedales, la reglamentación actual de la Agencia de Protección Ambiental de E.U. (EPA, por sus siglas en inglés) establece que los terrenos que pudieran haber sido humedales y fueron convertidos a terrenos agrícolas previo al 1985 y que estuvieron activos con uso agrícola en los pasados 5 años no están bajo la jurisdicción del la Sección 404 de la Ley de Agua Limpia Federal (“Clean Water Acto r CWA”) y basado en la Párrafo (b) (6) de la Regla de Protección de Aguas Navegables (“Navigable Waters Protection Rule”).

Por otro lado, el Artículo 5 de la Ley 314 del 24 de Diciembre de 1998 según enmendada, Ley para Declarar La Política Pública sobre Humedales y la Designación del Caño Tiburones como Reserva Natural, incluye las exclusiones a la ley, y establece como exclusión los “*Campos e infraestructura agrícola (riego y drenaje) en reconocimiento de la importancia*

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HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com

que tiene sobre cualquier otra consideración la actividad agrícola en tanto en cuanto no menoscabe en la calidad los recursos de agua."

Basado en la información suministrada, se concluye que no se prevé que hábitats de valor ecológico se vean afectados significativamente por el desarrollo propuesto.

iv. Descripción de hábitats naturales de alto valor ecológico presentes en la finca a localizar el proyecto propuesto. Descripción de los impactos reales o potenciales del proyecto propuesto sobre estos sistemas o cualquier otro de valor natural presente:

Los terrenos evaluados evidencian haber sido perturbados y utilizados recientemente para la agricultura y estos poseen una baja biodiversidad. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Recientemente (febrero 2021) la finca matriz que contiene el área de estudio fue adquirida por Agriart LLC, quien actualmente está operando actividades agrícolas en algunas áreas.

Como parte del desarrollo del Proyecto de Mycogen Seeds, y en cumplimiento con la Ley 241 del 15 de agosto de 1999, para establecer la Nueva Ley de Vida Silvestre de Puerto Rico, algunas áreas fueron designadas como Servidumbres de Conservación a favor del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico, dichas áreas consisten en áreas de quebradas, canales, humedales, una parcela de mitigación de humedales y colinas; algunas de estas dentro del predio propuesto para el proyecto y otras fuera. Dichas áreas deberán estar fuera de la huella de desarrollo de cualquier proyecto futuro.

En adición, durante los estudios de flora y fauna realizados para el proyecto Mycogen, se documentó la presencia del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) en el área del proyecto, esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Las localidades previamente reportadas con la presencia de dicha especie corresponden a unas áreas de verjas internas en el centro del área de estudio. Se recomienda realizar un estudio de búsquedas específicas de *Ctenonotus poncensis* para confirmar o descartar su presencia en las localidades anteriormente reportadas y en otras áreas a ser ocupadas por el proyecto. Por otro lado, otra opción es preparar e implementar un protocolo de protección, manejo y conservación del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) especialmente durante las actividades de remoción de capa vegetal y movimiento de tierra, el cual deberá incluir entre las tareas la obtención de un permiso de captura y relocalización de la especie.

Por otro lado durante los trabajos de campo, se observaron dos especímenes de la Mariquita de Puerto Rico (*Agelaius xanthomus*) dentro de la propiedad y fuera del área del proyecto, esta ave está clasificada como en peligro de extinción a nivel estatal (Reglamento 6766 del DRNA) y federal (Servicio de Pesca y Vida Silvestre de EU). Dichos especímenes se encontraban en una estructura de metal, anteriormente utilizada para el procesamiento de productos agrícolas, localizada en el extremo noroeste de la propiedad y cercano a las facilidades de administración del antiguo proyecto Mycogen y luego Corteva. Aunque se desconoce si estaban anidando en esa área, existe el potencial que así sea ya que en los municipios de Guayama y Salinas la especie se ha observado anidando en estructuras. Aunque existe el potencial de que dicha especie se observe sobre volando el área de estudio, es poco probable que la utilice para forrajeo o anidaje.

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Una vez se implemente el protocolo de conservación del Lagartijo Jardinero del Sur, no se prevé que ninguna especie de interés para la conservación, ni hábitats de alto valor ecológico se vean afectados significativamente por el desarrollo propuesto. Existe el potencial de que ocurran impactos temporeros sobre la flora y la fauna terrestre durante la construcción del Proyecto. El impacto principal sobre la vegetación será causado por la remoción de árboles para la construcción del proyecto. Por consiguiente, los efectos más directos a la vida silvestre resultarán de la eliminación, alteración o fragmentación de habitáculos existentes, como consecuencia de la construcción del Proyecto. Sin embargo, aunque estos impactos serán mínimos por la baja biodiversidad del área, se espera que estos efectos sean mitigados con la reforestación y la restauración y creación de habitáculos, como parte de las acciones de mitigación del Proyecto propuesto. Por otro lado, algunos de los animales que utilizan habitáculos en el área del Proyecto podrían ser desplazados temporalmente durante la fase de construcción. Algunos de los animales desplazados podrían establecerse en habitáculos cercanos. Sin embargo, debido a que muchos de los habitáculos cercanos presentan poblaciones establecidas de dichas especies, es posible que los individuos desplazados tengan que competir por los recursos con éstas, residentes de las áreas cercanas. Esta posible competencia podría resultar en la desaparición temporera de las especies desplazadas dentro del área del Proyecto o que tengan que utilizar áreas menos favorables donde sus recursos no se encuentren en cantidades aceptables o donde aumente su exposición a depredadores. Sin embargo, este efecto se espera sólo sobre especies comunes que podrían re-colonizar los habitáculos dentro del Proyecto una vez termine la construcción. De igual forma, estos impactos se deben mitigar con la implementación de prácticas de ingeniería apropiadas y mediante la implantación de planes de mitigación y de manejo de las especies afectadas. Se espera que los impactos sobre la flora a ser ocasionados por el desarrollo del proyecto sean mínimos tomando en consideración las acciones de mitigación que se deben realizar con respecto a los árboles existentes.

v. Descripción resumida de las actividades humanas pasadas realizadas en el predio del proyecto propuesto, particularmente aquéllas que hayan causado impactos permanentes:

Antiguamente el área era utilizada con fines agrícolas. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Recientemente (febrero 2021) la finca matriz que contiene el área de estudio fue adquirida por Agriart LLC, quien actualmente está operando actividades agrícolas en algunas áreas. Tras el paso del Huracán María por nuestra zona, esta área fue severamente impactada, se observan muchos árboles caídos o virados.

vi. Copia legible del mapa topográfico 1:20,000 donde se señale claramente la localización de la finca del proyecto propuesto:

El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna Terrestre en el cual se pueden observar varios mapas del área, entre éstos, la Figura 1 con el mapa del cuadrángulo topográfico mostrando la ubicación del Proyecto.

vii. Foto aérea donde se señale claramente la localización de la finca del proyecto propuesto:

El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna Terrestre en el cual se pueden observar varios mapas del área, entre éstos, la Figura 3 que incluye la fotografía aérea mostrando la ubicación del Proyecto.

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viii. Plano de la finca del proyecto (en coordenadas Nad 83) donde se señale detalladamente la huella de impacto de la obra propuesta:

El **Anejo B** de este memorando contiene el plano de la finca del proyecto donde se señala la huella de impacto del Proyecto propuesto.

ix. Determinación de la Categoría de Hábitat Natural que se recomienda para la finca del proyecto propuesto a tenor con la información sometida y las disposiciones de la ley 241 y sus reglamentos:

Basado en la Ley 241 (Nueva Ley de Vida Silvestre de Puerto Rico), y en sus reglamentos, Reglamento 6765 del año 2004, Reglamento para Regir la Conservación y el Manejo de la Vida Silvestre, las Especies Exóticas y la Caza en el Estado Libre Asociado de Puerto Rico, Reglamento Núm. 6766, Reglamento para regir las especies vulnerables y en peligro de extinción en el Estado Libre Asociado de Puerto Rico, y utilizando los Criterios para la designación de Hábitat Natural en Puerto Rico y su conservación, los terrenos propuestos pueden ser catalogados como: **Hábitat Natural de Valor Ecológico (Categoría 4)** para las áreas de las quebradas y humedales asociados ya que dominan especies de árboles de madurez media en composición variada entre especies nativas e introducidas y algunas áreas son cuerpos de agua intermitentes o efímeros; y **Hábitat Natural con Gran Potencial de Convertirse en Esencial, de Alto Valor o de Valor Ecológico (Categoría 5)** en las áreas llanas antiguamente utilizadas para la agricultura ya que se componen de terreno con una cobertura vegetal arbustiva y pastizales, dominados por especies nativas y exóticas, y adyacentes o cercanas a áreas de alto valor ecológico.

Debido a la potencial presencia del Lagartijo Jardinero del Sur en el área del proyecto, y luego de implementado su protocolo de protección, manejo y conservación, no se prevé que ninguna especie de interés para la conservación, ni hábitats de alto valor ecológico se vean afectados significativamente por el desarrollo propuesto.

x. Descripción del área propuesta para mitigación, según la categoría de Hábitat Natural recomendada y las disposiciones de la Ley 241 y sus reglamentos:

Las acciones de mitigación del Proyecto se harán congruentemente con los requerimientos de la Ley 241. Esta mitigación será establecida según los requisitos de la Ley 241 y congruentemente con los requisitos de mitigación de árboles establecidos en el Reglamento Conjunto de OGPe, según enmendado (Regla 3.4.2). También se implementarán medidas para el control de erosión, sedimentación y polvo fugitivo entre otras.

Según lo antes expuesto, queda bajo la consideración del DRNA emitir la *Certificación de la Categorización de Hábitats Naturales para la Vida Silvestre* para el Proyecto. De tener cualquier duda o pregunta, no dude en comunicarse a su conveniencia.

Cordialmente,

Walter E. Soler-Figueroa
Presidente

Anejos.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
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ANEJO A:

ESTUDIO DE FLORA Y FAUNA TERRESTRE.

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ESTUDIO DESCRIPTIVO DE FLORA Y FAUNA TERRESTRE

PROYECTO DE SISTEMA DE ENERGÍA SOLAR-FOTOVOLTAICO AES SALINAS B

SALINAS, PUERTO RICO

PREPARADO PARA:

PMG ASSOCIATES, INC.

PREPARADO POR:

AMBIENTA INC.
ENVIRONMENTAL CONSULTANTS

JUNIO 2021

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1.0 RESUMEN EJECUTIVO

Clean Flexible Energy, LLC (Dueño) propone la construcción de un sistema solar fotovoltaico para proveer energía renovable a la red de distribución de la Autoridad de Energía Eléctrica de PR (AEE). El predio, denominado como AES Salinas B, comprende aproximadamente de unas 558.97 cuerdas (2,197,210 metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico.

El Proyecto propuesto tiene como propósito la utilización de áreas mayormente en desuso, para la instalación de un proyecto de energía renovable que contribuya a la creación de un sistema energético resiliente, confiable y robusto integrado al sistema eléctrico provisto por la Autoridad de Energía Eléctrica (AEE).

Este documento constituye el Estudio Descriptivo de Flora y Fauna Terrestre (el Estudio) necesario como requisito de la documentación ambiental para el proyecto. El propósito de este estudio es caracterizar los sistemas naturales presentes en el predio y así obtener una imagen integral y una herramienta de planificación para el futuro proyecto.

Previo a la realización del estudio de campo de flora y fauna se hizo una revisión de la literatura científica existente concerniente a localidades identificadas con la presencia de especies listadas como críticas, amenazadas o en peligro de extinción, también se revisó literatura científica disponible sobre estudios previos en el área del Proyecto.

Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales, matorrales con arbustos, áreas que fueron aradas para la siembra, algunas áreas sembradas y rodales de árboles típicos de áreas previamente perturbadas y utilizadas para la agricultura.

Se identificaron un total de ciento trece (113) especies de plantas de entre cuarenta y dos (42) familias. Por otro lado, un total de setenta y tres (63) especies de fauna fueron identificadas, siendo las aves el grupo dominante, de las cuales se identificó un total de cuarenta y tres (43) especies.

Los terrenos propuestos evidencian haber sido perturbados y utilizados recientemente para la agricultura y estos poseen una baja biodiversidad. Los más recientes impactos ocurrieron durante la operación de los Proyectos Mycogen Seeds y luego Corteva, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Recientemente (febrero 2021) la finca matriz que contiene el

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HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.comt

área de estudio fue adquirida por Agriart LLC, quien actualmente está operando actividades agrícolas en algunas áreas.

Como parte del desarrollo del Proyecto de Mycogen Seeds, y en cumplimiento con la Ley 241 del 15 de agosto de 1999, para establecer la Nueva Ley de Vida Silvestre de Puerto Rico, algunas áreas fueron designadas como Servidumbres de Conservación a favor del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico, dichas áreas consisten en áreas de quebradas, canales, humedales, una parcela de mitigación de humedales y colinas; algunas de estas dentro del predio propuesto para el proyecto y otras fuera. Dichas áreas deberán estar fuera de la huella de desarrollo de cualquier proyecto futuro. Se recomienda obtener el plano oficial de inscripción de las parcelas designadas como Servidumbre de Conservación para garantizar su protección y como herramienta para el diseño y planificación del proyecto.

En adición, durante los estudios de flora y fauna realizados para el proyecto Mycogen, se documentó la presencia del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) en el área del proyecto, esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Las localidades previamente reportadas con la presencia de dicha especie corresponden a unas áreas de verjas internas en el centro del área de estudio. Se recomienda realizar un estudio de búsquedas específicas de *Ctenonotus poncensis* para confirmar o descartar su presencia en las localidades anteriormente reportadas y en otras áreas a ser ocupadas por el proyecto. Por otro lado, otra opción es preparar e implementar un protocolo de protección, manejo y conservación del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) especialmente durante las actividades de remoción de capa vegetal y movimiento de tierra, el cual deberá incluir entre las tareas la obtención de un permiso de captura y relocalización de la especie.

Por otro lado durante los trabajos de campo, se observaron dos especímenes de la Mariquita de Puerto Rico (*Agelaius xanthomus*) dentro de la propiedad y fuera del área del proyecto, esta ave está clasificada como en peligro de extinción a nivel estatal (Reglamento 6766 del DRNA) y federal (Servicio de Pesca y Vida Silvestre de EU). Dichos especímenes se encontraban en una estructura de metal, anteriormente utilizada para el procesamiento de productos agrícolas, localizada en el extremo noroeste de la propiedad y cercano a las facilidades de administración del antiguo proyecto Mycogen y luego Corteva. Aunque se desconoce si estaban anidando en esa área, existe el potencial que así sea ya que en los municipios de Guayama y Salinas la especie se ha observado anidando en estructuras. Aunque existe el potencial de que dicha especie se observe sobre volando el área de estudio, es poco probable que la utilice para forrajeo o anidaje. Ninguna otra de las especies de flora o fauna identificadas posee designación especial.

Ambienta Inc. Tel. (787) 510-7031 / (787) 732-0907
HC2 Box 14029 Aguas Buenas, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.comt

2.0 INTRODUCCIÓN

Clean Flexible Energy, LLC (Dueño) propone la construcción de un sistema solar fotovoltaico para proveer energía renovable a la red de distribución de la Autoridad de Energía Eléctrica de PR (AEE). El predio, denominado como AES Salinas B, comprende aproximadamente de unas 558.97 cuerdas (2,197,210 metros cuadrados) y está localizado en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico (ver **Figura 1**).

El Dueño se encuentra en el proceso de negociación de un contrato de compra de energía con la AEE, en donde el Dueño será responsable de construir, operar y suplir la energía eléctrica producida por el sistema fotovoltaico para suministrarla como energía suplementaria a la AEE.

El sistema fotovoltaico propuesto (el Proyecto) consistirá en lo siguiente:

- Conjunto de paneles fotovoltaicos instalados sobre estructuras de soporte hincadas sobre el terreno (“ground-mounted”).
- Equipos de inversores, baterías y transformadores.
- Mejoras en la infraestructura eléctrica y manejo de escorrentía superficial.
- Caminos de accesos necesarios para la operación y mantenimiento del sistema.

El Proyecto propuesto tiene como propósito la utilización de áreas mayormente en desuso, para la instalación de un proyecto de energía renovable que contribuya a la creación de un sistema energético resiliente, confiable y robusto integrado al sistema eléctrico provisto por la Autoridad de Energía Eléctrica (AEE).

La construcción de este proyecto es cónsono con los objetivos de la “Ley de Política Pública Energética de Puerto Rico” (Ley Núm. 17 de 11 de abril de 2019) y del Plan de Uso de Terrenos (PUT), ya que además de proveer una fuente de energía alterna para la AEE, contribuye también a mejorar la calidad de medio ambiente mediante el uso de fuentes de energía renovable reduciendo la quema de combustible fósil y las emisiones de gases de invernadero, representando esto un mejor uso de los recursos naturales para beneficio del medio ambiente, la salud pública y la economía.

El acceso principal a la propiedad es a través de la carretera estatal PR-706 al oeste del predio. El acceso al proyecto fotovoltaico será a través del acceso y vías existentes en la propiedad y no requiere

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modificación alguna al acceso existente. En el predio se realizarán mejoras para proveer caminos internos para la operación y mantenimiento de los equipos a instalarse en esta segunda fase.

La propiedad donde se propone el Proyecto se encuentra accesible a infraestructura potable, sanitaria, telecomunicaciones y energía eléctrica. El Proyecto tendrá como beneficio la generación de energía eléctrica de una fuente renovable para suplir las necesidades de energía de la AEE. El predio donde ubicará el proyecto solar no requiere de servicios de agua potable ni alcantarillado sanitario de la Autoridad de Acueductos y Alcantarillado (AAA).

La Ley Núm. 17 de 11 de abril de 2019, conocida como la "Ley de Política Pública Energética de Puerto Rico" se crea a los fines de establecer la política pública energética de Puerto Rico para crear los parámetros que guiarán a un sistema energético resiliente, confiable y robusto, con tarifas justas y razonables para todas las clases de consumidores, viabilizar que el usuario del servicio de energía produzca y participe en la generación de energía, facilitar la interconexión de la generación distribuida y microredes, y desagregar y transformar el sistema eléctrico en uno abierto.

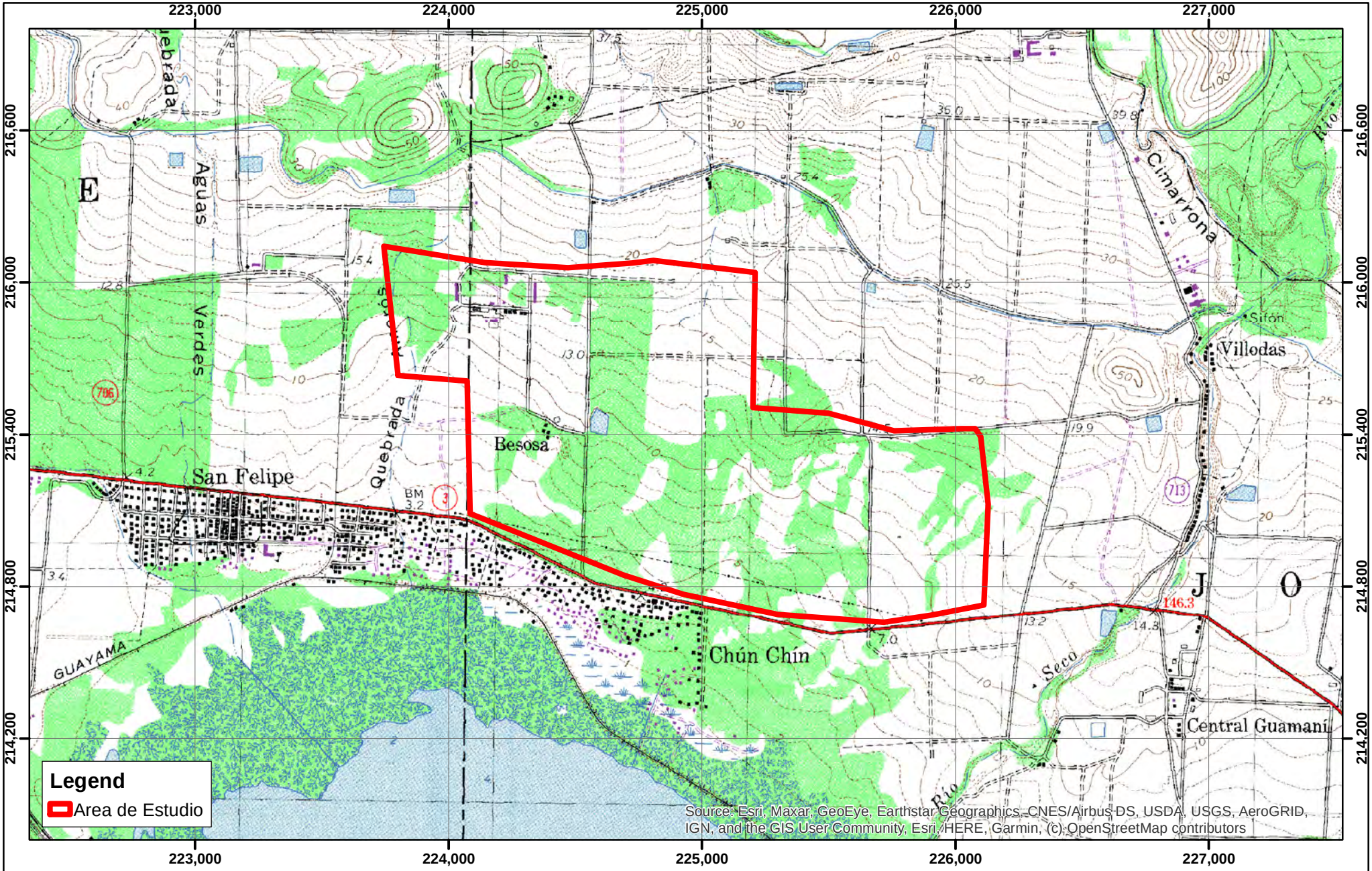
El Artículo 1.11 (f) de dicha ley dispone que para facilitar el desarrollo de proyectos de energía renovable y cumplir con la Cartera de Energía Renovable establecida en la Ley Núm. 82-2010, según enmendada, todos los permisos, consultas, variaciones, endosos, certificaciones, concesiones y/o autorizaciones para los proyectos de energía renovable, incluyendo, pero sin limitarse a, los trámites relativos al cumplimiento con la Ley 416- 2004, según enmendada, conocida como Ley sobre Política Pública Ambiental, deberán ser tramitados por la Oficina de Gerencia de Permisos y demás agencias concernidas siguiendo los procedimientos expeditos para estados de emergencia establecidos al amparo de la Ley 76-2000, según enmendada, y las órdenes administrativas y reglamentación aplicable a estos casos de las agencias concernidas.

Este documento constituye el Estudio Descriptivo de Flora y Fauna Terrestre (el Estudio) necesario como requisito de la documentación ambiental para el proyecto. El propósito de este estudio es caracterizar los sistemas naturales presentes en la Propiedad y así obtener una imagen integral y una herramienta de planificación para el futuro proyecto.

Como parte de la recopilación de datos se desarrolló este estudio descriptivo de flora y fauna terrestre correspondiente al predio completo que contendrá el Proyecto. Esta información provee detalles de la composición vegetal y animal en el área propuesta para el Proyecto.

En el Estudio se presentan datos generales que intentan describir algunos componentes ambientales del área de estudio. Esto pretende complementar la información para presentar una imagen integral.

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HC2 Box 14029 Aguas Buenas, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.comt



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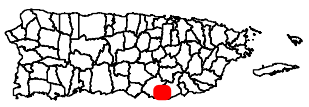


Figura 1: Mapa de Localización

AES Salinas - PV, Salinas, P.R.

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PMG AND ASSOCIATES

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3.0 DESCRIPCIÓN GENERAL DEL ÁREA DE ESTUDIO

Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales, matorrales con arbustos, áreas que fueron aradas para la siembra, áreas sembradas y rodales de árboles típicos de áreas previamente perturbadas y utilizadas para la agricultura. A continuación se describen los componentes principales y relevantes para este estudio. Dicha información es complementada con las figuras y los anejos correspondientes.

3.1 LOCALIZACIÓN

El predio donde ubica la facilidad AES Salinas comprende aproximadamente de unas 558.97 cuerdas (2,197,210 metros cuadrados), localizadas en el kilómetro 2.3 de la carretera PR-706 entre la carretera PR-53 y la carretera PR-3 entre los barrios Aguirre y Jobos en los Municipios de Salinas y Guayama, Puerto Rico (ver **Figura 1**).

3.2 TOPOGRAFÍA

La topografía del predio es mayormente llana. Su elevación varía de 20 a 5 metros sobre el nivel del mar, con un gradiente de norte a sur.

3.3 SUELOS

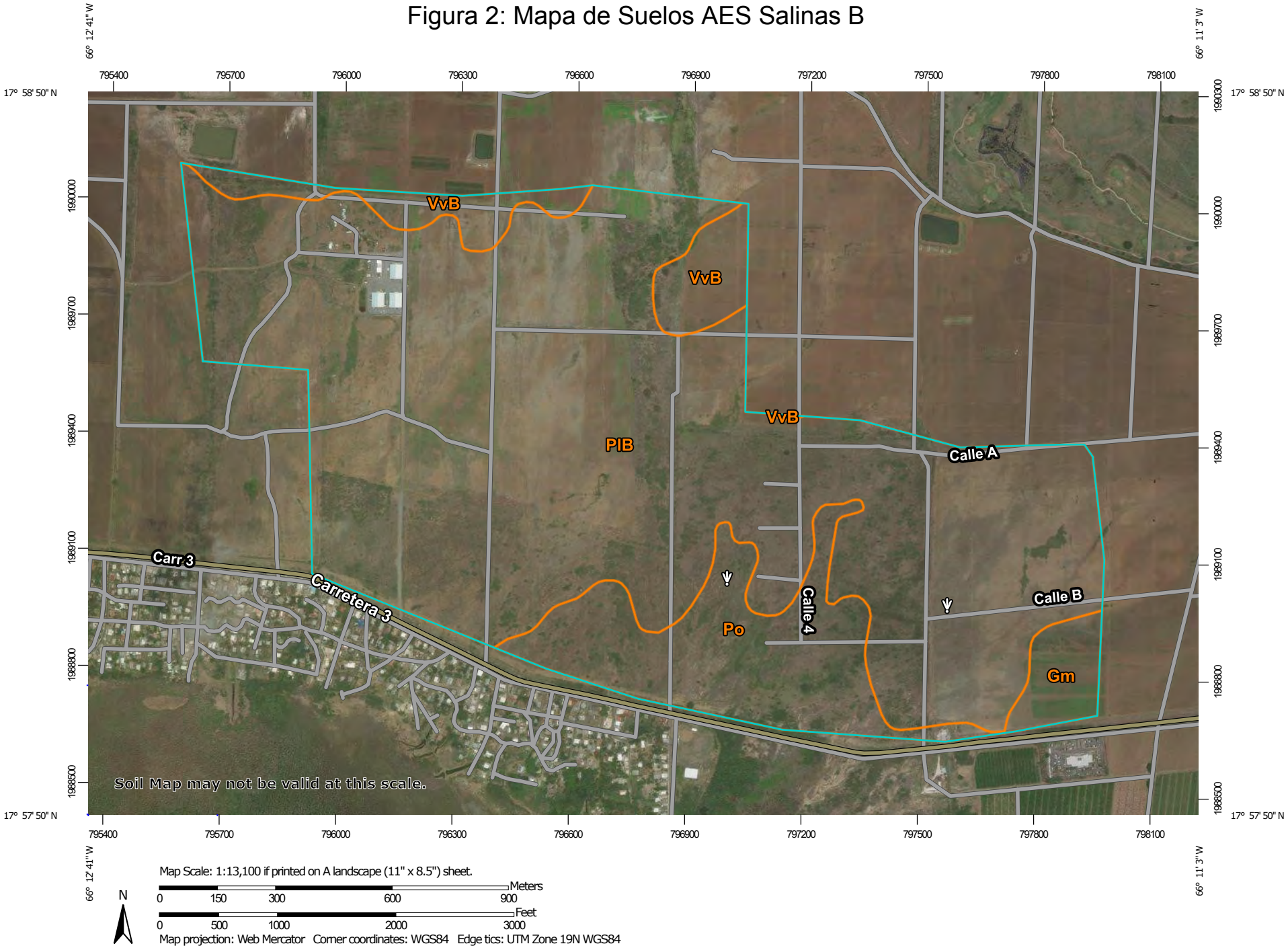
Según el *Catastro de Suelos del Área de Humacao de Puerto Rico* del Servicio de Conservación de Suelos de los Estados Unidos ("Soil Survey of the Humacao Area of Puerto Rico-U.S. Soil Conservation Service"), el predio contiene cuatro (4) tipos de suelos, la serie Pasto Seco clay (PIB), la serie Vives clay (VvB), la serie Poncena clay (Po) y la serie Guamaní silty clay (Gm). La **Figura 2** muestra el mapa de suelos del área. A continuación se presenta la descripción del suelo del área según el catastro de suelos.

Serie Pasto Seco clay (PIB): Estos suelos se encuentran en las terrazas y las pendientes del área semiárida. De drenaje moderadamente bueno y permeabilidad lenta. Son difíciles de trabajar.

Serie Vives clay (VvB): Estos suelos se encuentran en las terrazas y las pendientes del área semiárida. De drenaje moderadamente bueno y permeabilidad moderada. Tiene moderadas limitaciones para la agricultura por la poca precipitación de lluvia, su pendiente y el peligro de erosión.

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Figura 2: Mapa de Suelos AES Salinas B



Serie Poncena clay (Po): Suelos casi nivelados en las planicies costeras. Son de permeabilidad lenta. Tienen de moderado a buen drenaje y una alta capacidad de agua. Son suelos de fertilidad mediana y difícil de trabajar. Han sido usados para la siembra de caña de azúcar y herbáceas de pastoreo.

Serie Guamaní silty clay: (Gm): Suelos casi nivelados en las llanuras aluviales de los ríos. Son de buen drenaje y de permeabilidad rápida; con capacidad de agua baja y de escorrentía mediana. Son suelos de fertilidad alta y fáciles de trabajar. Tienen limitaciones para la agricultura por su baja capacidad de agua. Si son irrigados pueden ser usados para la siembra de caña de azúcar y gramas de pastoreo.

3.4 CLIMA

El área de estudio se encuentra en la zona bosque seco costero, según el sistema de zonas de vida de Holdrige. La temperatura diaria promedio fluctúa de 85.8°F a 91.4°F. La lluvia anual promedio fluctúa de 600mm a 1,000mm y es más frecuente durante los meses de septiembre a noviembre. La evaporación excede la precipitación. La humedad relativa promedio es 80%. Los vientos soplan usualmente del este.

3.5 COMPONENTES BIÓTICOS

La zona de vida ecológica en la que se encuentra el Proyecto propuesto se conoce como Bosque Seco Subtropical (Ewel y Whitmore, 1973). Aproximadamente el 13.8% del área total de Puerto Rico se encuentra bajo esta clasificación. El clima, el suelo, las escorrentías y otros factores le dan forma y estructura a las asociaciones florísticas encontradas en esta zona de vida. La **Figura 3** muestra la fotografía aérea del área.

En esta zona de vida la agricultura es mayormente marginal, excepto con riego. La producción de carbón fue común en esta zona pero esta práctica está casi extinta. Entre las especies más comunes de esta zona de vida se encuentran: el Ucar, (*Bucida buceras*), el Dildo (*Pilosocereus royenii*), el bucayo gigante (*Erythrina poeppigiana*), la guaba (*Inga vera*), el Bayahonda (*Prosopis juliflora*), el Tachuelo (*Pictetia aculeata*), el Botón de cadete (*Leucaena leucocephala*) y el Guayacán (*Guaiacum officinale*), entre otras.

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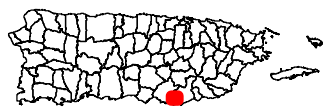


Figura 3: Fotografía Aérea

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No obstante, basado en las fotografías aéreas históricas del área, la vegetación del predio ha sido extensamente alterada en el pasado. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Recientemente (febrero 2021) la finca matriz que contiene el área de estudio fue adquirida por Agriart LLC, quien actualmente está operando actividades agrícolas en algunas áreas. Las asociaciones florísticas presentes no presentan la forma y estructura típica de bosques naturales encontradas en esta zona de vida. Esto se evidencia en su contenido herbáceo, en sus gramíneas dominantes y en las especies de árboles comunes presentes.

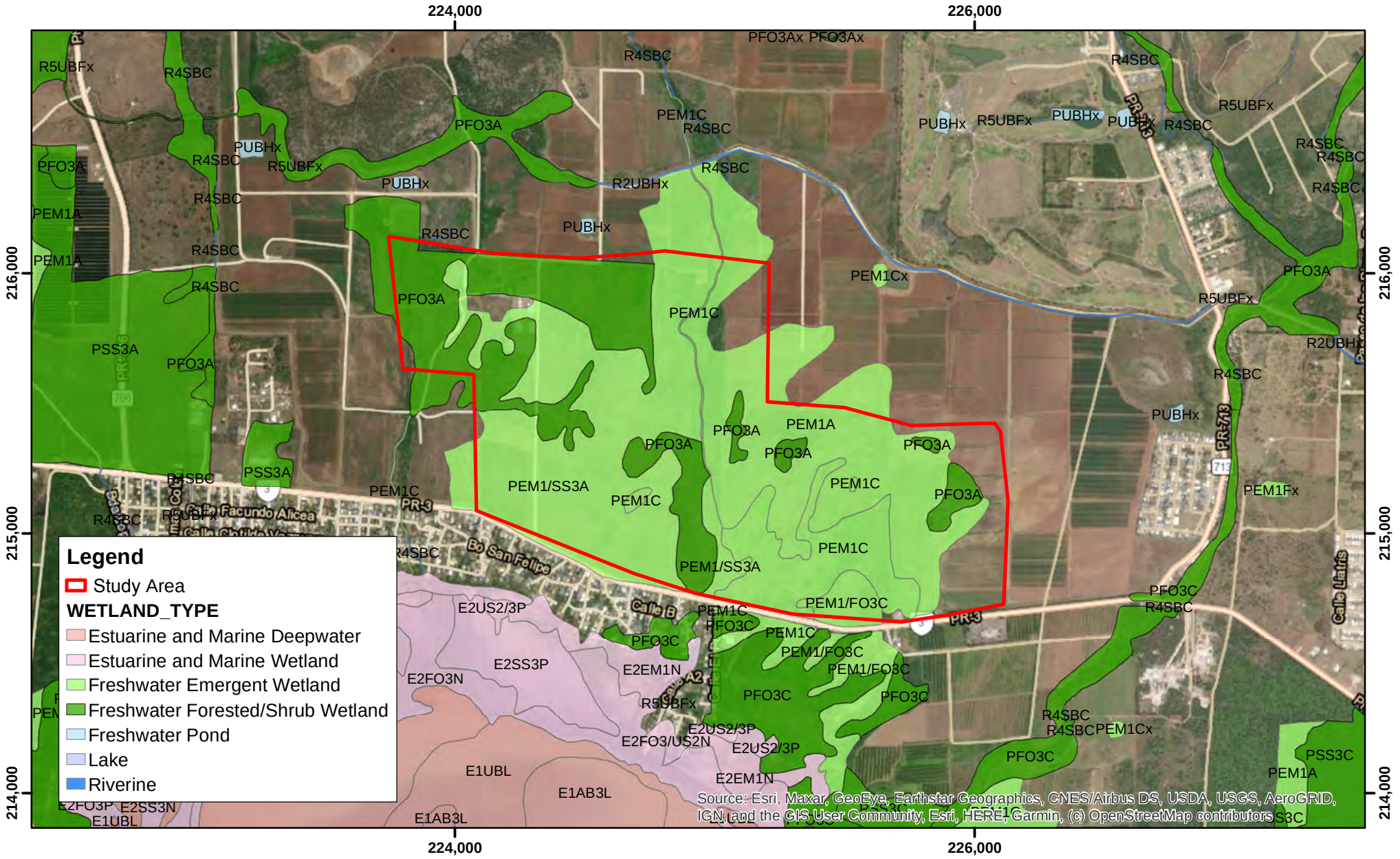
3.6 HIDROLOGÍA Y HUMEDALES

La hidrología del predio está caracterizada por el flujo de la escorrentía pluvial y por la topografía. El Canal de Riego Patillas cruza al norte de este a oeste fuera del área de estudio. La Quebrada Amorós cruza el área de estudio por la parte este de norte a sur. Una quebrada efímera sin nombre cruza el área de estudio de norte a sur por el centro. Además por estas áreas haber sido usadas por décadas para la agricultura contienen varios canales de drenaje.

Los mapas del Inventario Nacional de Humedales ("NWI Maps", por sus siglas en inglés) del Servicio de Pesca y Vida silvestre de E.U. (USFWS) muestran algunas localidades de humedales dentro del área de estudio. La **Figura 4** muestra el Mapa del Inventario Nacional de Humedales.

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Figura 4: NWI

AES-Salinas-B PV, Salinas, P.R.

Date: 4/14/2021

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4.0 METODOLOGÍA

Esta sección describe el procedimiento utilizado para llevar a cabo el estudio de flora y fauna y los criterios de selección para las áreas de estudio. Las investigaciones se llevaron a cabo de acuerdo a los procedimientos establecidos por el Departamento de Recursos Naturales y Ambientales de Puerto Rico (DRNA) y el Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS, por sus siglas en inglés), con evaluaciones de campo a lo largo de toda la Propiedad que contendrá el Proyecto. Se prestó atención especial a las áreas parcialmente forestadas y que mostraron mayor diversidad de flora y fauna.

4.1 REVISIÓN DE LITERATURA

Previo a la realización del estudio de flora y fauna se hizo una revisión de la literatura científica disponible sobre estudios previos en el área del Proyecto o su vecindad. También se hizo una consulta con el Inventario de Especies Críticas de la Oficina de Patrimonio Natural del DRNA. Dicho inventario incluye todas las especies protegidas por leyes estatales y federales, además de otras especies cuyas poblaciones sean bajas o que sean indicativas de habitáculos específicos dentro del Estado Libre Asociado de Puerto Rico. Esta información fue validada en el campo por medio de las visitas realizadas al área del Proyecto por parte de nuestro equipo de científicos. También se revisaron los mapas del Atlas del Índice de Sensitividad Ambiental (ESI Atlas, por sus siglas en inglés) de la Administración Oceánica y Atmosférica Nacional de Estados Unidos del año 2002 (NOAA, por sus siglas en inglés).

4.2 TRABAJO DE CAMPO

Se realizó una visita de reconocimiento con el fin de familiarizarse con las distintas áreas de la Propiedad así como para identificar los límites del predio. Dicha visita también sirvió para validar la información recopilada de diversos documentos y de los mapas de información geográfica (topográfico, foto aérea, suelos, humedales, planos de agrimensura y diseño, entre otros). Esta información fue analizada en conjunto permitiéndonos tener una mejor comprensión e imagen integral de las condiciones actuales de la Propiedad.

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El trabajo de campo se realizó durante el mes de junio del año 2021. El área del Proyecto fue recorrida en su totalidad sin tener que hacer uso de la metodología de cuadrantes o transeptos.

4.3 ANÁLISIS DE DATOS

La identificación de especies encontradas en la Propiedad se hizo principalmente en el campo. Aquellas especies que no se pudieron identificar en las visitas fueron identificadas en el laboratorio utilizando especímenes recolectados en el campo o mediante fotos tomadas durante las visitas. La identificación de plantas y animales se corroboró utilizando libros de referencia y guías de campo, tales como Little, Woodbury y Wadsworth (1974); Liogier (1985; 1988; 1991; 1995; 1997); Acevedo-Rodríguez y Woodbury (1985); Proctor (1989); Más y García-Molinari (2006); Raffaele et al.(1998), Rivero (1998); Little y Wadsworth (1999); Acevedo-Rodríguez (2003); Acevedo-Rodríguez y Strong (2005); Acevedo-Rodriguez (1996); y Axelrod (2011).

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5.0 RESULTADOS Y DISCUSIÓN

A continuación se presentan los resultados del Estudio. El **Anejo A** incluye documentación fotográfica del área estudiada.

5.1 FLORA

Dentro del área propuesta para el Proyecto se identificó un total de ciento trece (113) especies de plantas de entre cuarenta y dos (42) familias. La **Tabla 1** contiene el listado de flora dominante del área evaluada. Los terrenos propuestos evidencian haber sido deforestados en el pasado. Actualmente estos terrenos consisten en áreas de pastizales, arbustos, áreas aradas para la siembra y rodales de árboles, típicos de áreas previamente perturbadas y utilizadas en años pasados para la agricultura.

TABLA 1: INVENTARIO DE FLORA OBSERVADA.

Nombre Científico	**Nombre común**	**Familia**
Achyranthes aspera L. var. aspera	Rabo de gato	Amaranthaceae
Albizia lebbeck (L.) Benth.	Acacia amarilla	Mimosoideae
Allamanda blanchetti A. Dc.	Canario morado	Apocynaceae
Alysicarpus vaginalis (L.) DC.	Yerba de contrabando	Papilionoideae
Amaranthus dubius Mart.	Bledo	Amaranthaceae
Amaranthus spinosus L.	Blero espinoso	Amaranthaceae
Andira inermis (W. Wr.) DC	Moca	Papilionoideae
Annona glabra L.	Cayur	Annonaceae
Argemone mexicana L.	Cardo santo	Papaveraceae
Arivela viscosa (L.) Raf.	-	Cleomaceae
Bidens alba (L.) DC. var. radiata	Margarita silvestre	Asteraceae
Bursera simaruba (L.) Sarg.	Almácigo	Burseraceae
Calotropis procera (Aiton) W.T. Aiton	Algodón de seda	Asclepiadaceae
Capraria biflora Kunth.	-	Scrophulariaceae
Cenchurus purpureus Schumach	Yerba de elefante	Poaceae
Centrosema pubescens Benth.	Flor de conchitas	Papilionoideae
Chloris barbata SW.	Paragüita morada	Poaceae
Chloris radiata (L.) Sw.	Grama de costa	Poaceae
Cissus trifoliata L.	Bejuco de caro	Vitaceae
Cissus verticillata (L.) Nicholson & Jarvis	Bejuco de caro	Vitaceae
Cleoserrata speciosa(Raf.) Iltis, Novon	-	Cleomaceae
Clitoria ternatea L.	Bejuco de conchitas	Papilionoideae
Conocarpus erectus L.	Mangle de botón	Combretaceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

Nombre Científico	Nombre común	Familia
Cordia alliodora (R. & P.) Oken	Capá prieto	Boraginaceae
Croton flavens L. var. rigidus Muell. Arg.	Guayacancillo	Euphorbiaceae
Cyperus involucratus Rottb.	Paragüita	Cyperaceae
Cryptostegia madagascariensis Boyer	Canario morado falso	Asclepiadaceae
Cucumis anguria L.	Pepinillo silvestre	Cucurbitaceae
Cuphea parsonsia (L.) R. Br.	Chiagari	Lythraceae
Cyanthillium cinereum (L.)	Yerba socialista	Asteraceae
Cynodon dactylon (L.) Pers.	Bermuda común	Poaceae
Cynophalla flexuosa (L.).	Burro	Cannaceae
Desmanthus virgatus (L.) Willd.	Desmanto	Mimosoideae
Digitaria eriantha Steud.	Pangola	Poaceae
Digitaria sanguinalis (L.) Scop.	Pendejuelo	Poaceae
Echinochloa colona (L.) Link	Arrocillo	Poaceae
Eclipta prostrata (L.) L.	Eclipta blanca	Asteraceae
Eleusine indica (L.) Gaertn.	Pata de gallina	Poaceae
Euphorbia hyssopifolia L.	Lechera	Euphorbiaceae
Euphorbia prostrata Aiton.	Lechecillo	Euphorbiaceae
Glycine max	Soya	Fabaceae
Gossypium hirsutum L.	Algodón	Malvaceae
Guazuma ulmifolia Lamark	Guácima	Malvaceae
Heliotropium indicum L.	Yerba de cotorra	Boraginaceae
Indigofera spicata Forssk.	-	Fabaceae-Faboideae
Ipomoea tiliacea (Willd.) Choisy	Bejuco de puerco	Convolvulaceae
Jasminum fluminense Vell.	Jazmín oloroso	Oleaceae
Jatropha gossypifolia L.	-	Euphorbiaceae
Lantana camara L. var. camara	Cariaquillo	Verbenaceae
Leucaena leucocephala (Lam.) DeWit	Leucaena	Mimosoideae
Macfadyena unguis-cati (L.) A. Gentry	Bejuco de gato	Bignoniaceae
Macroptilidium lathyroides (L.) Urb.	Habichuela parada	Papilionoideae
Malachra capitata (L.) L.	Malvavisco	Malvaceae
Megathyrsus maximus Jacq	Yerba de guinea	Poaceae
Melinis repens (Willld.)	Yerba rosada	Poaceae
Melochia nodiflora Sw.	Bretónica prieta	Sterculiaceae
Melochia pyramidata L.	Bretónica piramidal	Sterculiaceae
Melothria pendula L.	Pepinito	Cucurbitaceae
Merremia quinquefolia (L.) Hallier	Batatilla blanca	Convolvulaceae
Mikania micrantha HBK	Guaco falso	Asteraceae
Mimosa pigra L.	Moriviví gigante	Mimosoideae
Momordica charantia L.	Cundeamor	Cucurbitaceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

Nombre Científico	Nombre común	Familia
Neptunia plena (L.) Benth.	Desmanto amarillo	Fabaceae
Paspalum virgatum L.	Cortadero	Poaceae
Petiveria alliacea L.	Anamú	Phytolaccaceae
Phyllanthus niruri L.	Quinino del pobre	Phyllanthceae
Phyllanthus urinaria L.	Quinino del pobre	Phyllanthceae
Physalis angulata L.	Sacabuche	Solanaceae
Pictetia aculeata (Vahl) Urb.	Tachuelo	Papilionoideae
Pisonia albida (Heimerl) Britt. & Standley	Corcho	Nyctaginaceae
Pithecellobium dulce (Roxb.) Benth.	Guamá americano	Mimosoideae
Pluchea odorata (L.) Cass.	Salvia	Asteraceae
Portulaca oleracea L.	Verdolaga	Portulacaceae
Prosopis juliflora (Sw.) DC.	Bayahonda	Fabaceae
Randia aculeata L.	Tintillo	Rubiaceae
Rhynchosia minima (L.) DC.	Frijolillo	Fabaceae
Ricinus communis L.	Higuereta	Euphorbiaceae
Ruellia tuberosa L.	-	Acanthaceae
Samanea saman (Willd.) Merril	Samán	Mimosoideae
Sesbania sericea (Willd.) Link	Papagayo	Papilionoideae
Sesuvium portulacastrum (L.) L.	Verdolaga rosada	Aizoaceae
Sida acuta Burm. f.	Escoba blanca	Malvaceae
Sida cordifolia L.	Escoba acorazonada	Malvaceae
Sida glabra Miller	Escobita dulce	Malvaceae
Sida rhombifolia L.	Escoba colorada	Malvaceae
Sida urens L.		Malvaceae
Solanum americanum Mill.	Yerba mora	Solanaceae
Solanum torvum Sw.	Berenjena cimarrona	Solanaceae
Sorghum halepense (L.) Pers.	Yerba Johnson	Poaceae
Sporolobus indicus (L.) R. Br.	Cerrillo	Poaceae
Sporolobus virginicus (L.) Kunth	Matojo de burro	Poaceae
Sporobolus jacquemontii Kunth	-	Poaceae
Spondias monbin L.	Jobo	Anacardiaceae
Stigmayphyllon emarginatum (Cav.) A. Juss.	Bejuco de San Pedro	Malpighiaceae
Symphyotrichum subulatum (Michx.) var parviflorum		Asteraceae
Thumbergia fragrans Roxb.	Susana blanca	Acanthaceae
Tillandsia recurvata (L.) L.	Nidos de gungulén	Bromeliaceae
Trianthema portulacastrum L.	Verdolaga de hoja ancha	Aizoaceae
Triumfetta rhomboidea Jacq.	Cadillo	Tiliaceae
Urena lobata L.	Cadillo	Malvaceae
Urochloa mossambicensis (Hack.) Dandy	-	Poaceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

Nombre Científico	Nombre común	Familia
Urochloa mutica (Forssk)	Malojillo	Poaceae
Vigna adenantha (G. Mey.)	Habichuela vira	Papilionoideae
Vigna luteola (Jacq.) Benth.	Frijol silvestre	Papilionoideae
Steinchisma laxa (SW)	Malojillo del monte	Poaceae
Vachellia farnesiana (L.)	Aroma	Fabaceae-Mimosoideae
Cuscuta americana L.	Bejuco de Mona	Convolvulaceae
Bastardia viscosa (L.) HBK.	Escoba babosa	Malvaceae
Ceiba pentandra L.	Ceiba	Bombacaceae
Malachra fasciata Jacquin	Malva blanca	Malvaceae
Pseudelephantopus spicatus (Juss.) C. F. Baker	Lengua de vaca	Asteraceae
Sporolobus indicus (L.) R. Br.	Cerrillo	Poaceae
Trichostigma octandrum (L.) H. Walt.	Bejuco de palma	Phytolaccaceae

Las especies más dominantes en el predio son las herbaceas *Achyranthes aspera var. aspera* (Rabo de gato), *Megathyrsus maximus* (yerba Guinea) y el árbol *Prosopis juliflora* (Bayahonda). Durante el estudio de campo no se encontró ninguna especie de flora considerada como crítica, amenazada o en peligro de extinción.

5.2 FAUNA

En lo que respecta a la fauna del área del Proyecto, se observó un total de setenta y tres (63) especies de fauna, siendo las aves el grupo dominante, de las cuales se identificó un total de cuarenta y tres (43). Las especies de aves más comunes dentro del predio son la Mozambique (*Quiscalus niger*) y el Pitirre Gris (*Tyrannus dominicensis*). También se observaron siete (7) especies de reptiles, una (1) de anfibios, dos (2) mamíferos y diez (10) especies de insectos. La **Tabla 2** incluye la lista de las especies de fauna observadas en el área del Proyecto.

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TABLA 2: INVENTARIO DE FAUNA OBSERVADA.

Nombre Científico	Nombre Común	Common Name
AVES		
Actitis macularius	Playero Coleador	Spotted Sandpiper
Anthracothorax dominicus	Zumbador Dorado	Antillean Mango
Ardea alba	Garza Real	Great Egret
Bubulcus ibis	Garza Ganadera	Cattle Egret
Buteo jamaicensis	Guaraguao Colirrojo	Red-tailed Hawk
Cathartes aura	Aura Tiñosa	Turkey Vulture
Charadrius vociferus	Chorlo Sabanero	Killdeer
Chordeiles gundlachii	Querequequé Antillano	Antillean Nighthawk
Coccyzus americanus	Pájaro Bobo Pechiblanco	Yellow-billed Cuckoo
Coccyzus minor	Pájaro Bobo Menor	Mangrove Cuckoo
Coereba flaveola	Reinita Común	Bananaquit
Columba livia	Paloma Doméstica	Rock Pigeon
Columbina passerina	Rolita	Common Ground-Dove
Crotophaga ani	Garrapatero	Smooth-billed Ani
Dendroica adelaidae	Reinita Mariposera	Adelaide's Warbler
Dendroica dominica	Reinita Gargantiamarilla	Yellow-throated Warbler
Elaenia martinica	Jui Blanco	Caribbean Elaenia
Eulampis holosericeus	Zumbadorcito de Pecho Azul	Green-throated Carib
Falco sparverius	Falcón Común	American Kestrel
Icterus icterus	Turpial	Venezuelan Troupial
Margarops fuscatus	Zorzal Pardo	Pearly-eyed Thrasher
Melanerpes portoricensis	Carpintero de Puerto Rico	Puerto Rican Woodpecker
Mimus polyglottos	Ruiseñor	Northern Mockingbird
Molothrus bonariensis	Tordo Lustroso	Shiny Cowbird
Myiarchus antillarum	Jui de Puerto Rico	Puerto Rican Flycatcher
Myiopsitta monachus	Perico Monje	Monk Parakeet
Parula americana	Reinita Pechidorada	Northern Parula
Passer domesticus	Gorrión Doméstico	House Sparrow
Patagioenas squamosa	Paloma turca	Scaly-naped Pigeon
Petrochelidon fulva	Golondrina de cueva	Cave Swallow
Quiscalus niger	Mozambique	Greater Antillean Grackle
Seiurus motacilla	Pizpita de Río	Louisiana Waterthrush
Setophaga ruticilla	Reinita Candelita	American Redstart
Sterna hirundo	Charrán Común	Common Tern
Tiaris bicolor	Gorrión Negro	Black-faced Grassquit

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CONTINUACIÓN DE TABLA 2: INVENTARIO DE FAUNA OBSERVADA.

Nombre Científico	Nombre Común	Common Name
AVES		
Tiaris olivacea	Gorrión Barba Amarilla	Yellow-faced Grassquit
Todus mexicanus	San Pedrito	Puerto Rican Tody
Tyrannus dominicensis	Pitirre Gris	Gray Kingbird
Vireo altiloquus	Vireo Julián Chiví	Black-whiskered Vireo
Zenaida asiatica	Tórtola Aliblanca	White-winged Dove
Zenaida aurita	Tórtola Cardosantera	Zenaida Dove
Zenaida macroura	Tórtola Rabilarga	Mourning Dove
ANPHIBIA		
Eleutherodactylus antillensis	Coquí Churí	-
REPTILIA		
Ameiva exsul	Siguana Común	Puerto Rican Common Ameiva
Anolis cristatellus cristatellus	Lagartijo Común	Common Anole
Anolis pulchellus	Lagartijo de Jardín	Grass Anole
Anolis stratulus	Lagartijo Manchado	Painted Anole
Ctenonotus poncensis	Lagartijo Jardinero de Ponce	Ponce's Grass Anole
Iguana iguana	Iguana Verde	Green Iguana
Sphaerodactylus macrolepis ateles	Salamanquita Común	Common Puerto Rican Gecko
INSECTA		
Agraulis vanillae	Mariposa	Gulf fritillary
Apis melifera	Abeja	Bee
Argiope argentata	Araña plateada	Silver spider
Danaus plexippus	Mariposa monarca	Monarch butterfly
Erythemis vesiculosa	Libélula	Great Pondhawk
Erythrodiplax umbrata	Libélula	Band-winged dragonlet
Ischnura ramburii	Caballito de San Pedro	Rambur's forktail
Nasutitermes costalis	Comején	Termite
Orochalis vaginalis	Grillo	
Schistocerca americana	Saltamonte	American bird grasshopper
MAMMALIA		
Herpestes auropunctatus	Mangosta	Indian Mongoose
Rattus norvegicus	Rata	Brown Rat

Se observaron dos especímenes de la Mariquita de Puerto Rico (*Agelaius xanthomus*) fuera del área del proyecto y dentro de la finca matriz. Dichos especímenes se encontraban en una estructura de metal, anteriormente utilizada para el procesamiento de productos agrícolas, localizada en el extremo noroeste de la propiedad y cercano a las facilidades de administración del antiguo proyecto Mycogen y luego Corteva.

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5.3 REVISIÓN DE LITERATURA

Los mapas de especies críticas, amenazadas o en peligro de extinción de la Oficina de Patrimonio Natural del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico y los Mapas del Atlas del Índice de Sensitividad Ambiental (ESI Atlas, por sus siglas en inglés) de la Administración Oceánica y Atmosférica Nacional de Estados Unidos del año 2002 (NOAA, por sus siglas en inglés) no muestran localidades conocidas en el predio que contendrá el Proyecto con especies críticas, amenazadas, vulnerables, en peligro de extinción o con designación especial. En el **Anejo B** se incluye el ESI para el área de estudio.

Por otro lado, durante la revisión de documentación ambiental del proyecto agrícola (Mycogen Seeds) que operó en la finca matriz donde se localiza el predio que contendrá el proyecto, se identificó Lagartijo Jardinero del Sur (*Ctenonotus poncensis*), esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Las localidades previamente reportadas con la presencia de dicha especie corresponden a unas áreas de verjas internas en el centro del área de estudio.

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6.0 SÍNTESIS Y RECOMENDACIONES

El área de estudio está localizada en una zona de vida clasificada como bosque seco subtropical (Ewel & Whitmore, 1973). Sin embargo, la vegetación dominante no presenta las condiciones y características naturales de este tipo de zona de vida debido a los usos pasados del terreno, como actividades agrícolas y otros disturbios antropogénicos, que han contribuido con la deforestación del área.

Los terrenos evaluados evidencian haber sido perturbados y utilizados recientemente para la agricultura y estos poseen una baja biodiversidad. Los más recientes impactos ocurrieron durante la operación del Proyecto Mycogen Seeds, la cual ocurrió durante el periodo del año 2012 hasta aproximadamente mediados del año 2017. Recientemente (febrero 2021) la finca matriz que contiene el área de estudio fue adquirida por Agriart LLC, quien actualmente está operando actividades agrícolas en algunas áreas.

Como parte del desarrollo del Proyecto de Mycogen Seeds, y en cumplimiento con la Ley 241 del 15 de agosto de 1999, para establecer la Nueva Ley de Vida Silvestre de Puerto Rico, algunas áreas fueron designadas como Servidumbres de Conservación a favor del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico, dichas áreas consisten en áreas de quebradas, canales, humedales, una parcela de mitigación de humedales y colinas; algunas de estas dentro del predio propuesto para el proyecto y otras fuera. Dichas áreas deberán estar fuera de la huella de desarrollo de cualquier proyecto futuro. Se recomienda obtener el plano oficial de inscripción de las parcelas designadas como Servidumbre de Conservación para garantizar su protección y como herramienta para el diseño y planificación del proyecto.

En adición, durante los estudios de flora y fauna realizados para el proyecto Mycogen, se documentó la presencia del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) en el área del proyecto, esta especie está clasificada como vulnerable a nivel estatal (Reglamento 6766 del DRNA). Las localidades previamente reportadas con la presencia de dicha especie corresponden a unas áreas de verjas internas en el centro del área de estudio. Se recomienda realizar un estudio de búsquedas específicas de *Ctenonotus poncensis* para confirmar o descartar su presencia en las localidades anteriormente reportadas y en otras áreas a ser ocupadas por el proyecto. Por otro lado, otra opción es preparar e implementar un protocolo de protección, manejo y conservación del Lagartijo Jardinero del Sur (*Ctenonotus poncensis*) especialmente durante las actividades de

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remoción de capa vegetal y movimiento de tierra, el cual deberá incluir entre las tareas la obtención de un permiso de captura y relocalización de la especie.

Por otro lado durante los trabajos de campo, se observaron dos especímenes de la Mariquita de Puerto Rico (*Agelaius xanthomus*) dentro de la propiedad y fuera del área del proyecto, esta ave está clasificada como en peligro de extinción a nivel estatal (Reglamento 6766 del DRNA) y federal (Servicio de Pesca y Vida Silvestre de EU). Dichos especímenes se encontraban en una estructura de metal, anteriormente utilizada para el procesamiento de productos agrícolas, localizada en el extremo noroeste de la propiedad y cercano a las facilidades de administración del antiguo proyecto Mycogen y luego Corteva. Aunque se desconoce si estaban anidando en esa área, existe el potencial que así sea ya que en los municipios de Guayama y Salinas la especie se ha observado anidando en estructuras. Aunque existe el potencial de que dicha especie se observe sobre volando el área de estudio, es poco probable que la utilice para forrajeo o anidaje. Ninguna otra de las especies de flora o fauna identificadas posee designación especial.

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ANEJOS

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ANEJO A:

DOCUMENTACIÓN FOTOGRÁFICA

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Foto 1: Vista típica del área de estudio.



Foto 2: Vista típica del área de estudio.

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Foto 3: Vista típica del área de estudio.



Foto 4: Vista típica del área de estudio.

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Foto 5: Vista típica del área de estudio.



Foto 6: Vista típica del área de estudio.

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Foto 7: Vista típica del área de estudio.



Foto 8: Vista típica del área de estudio.

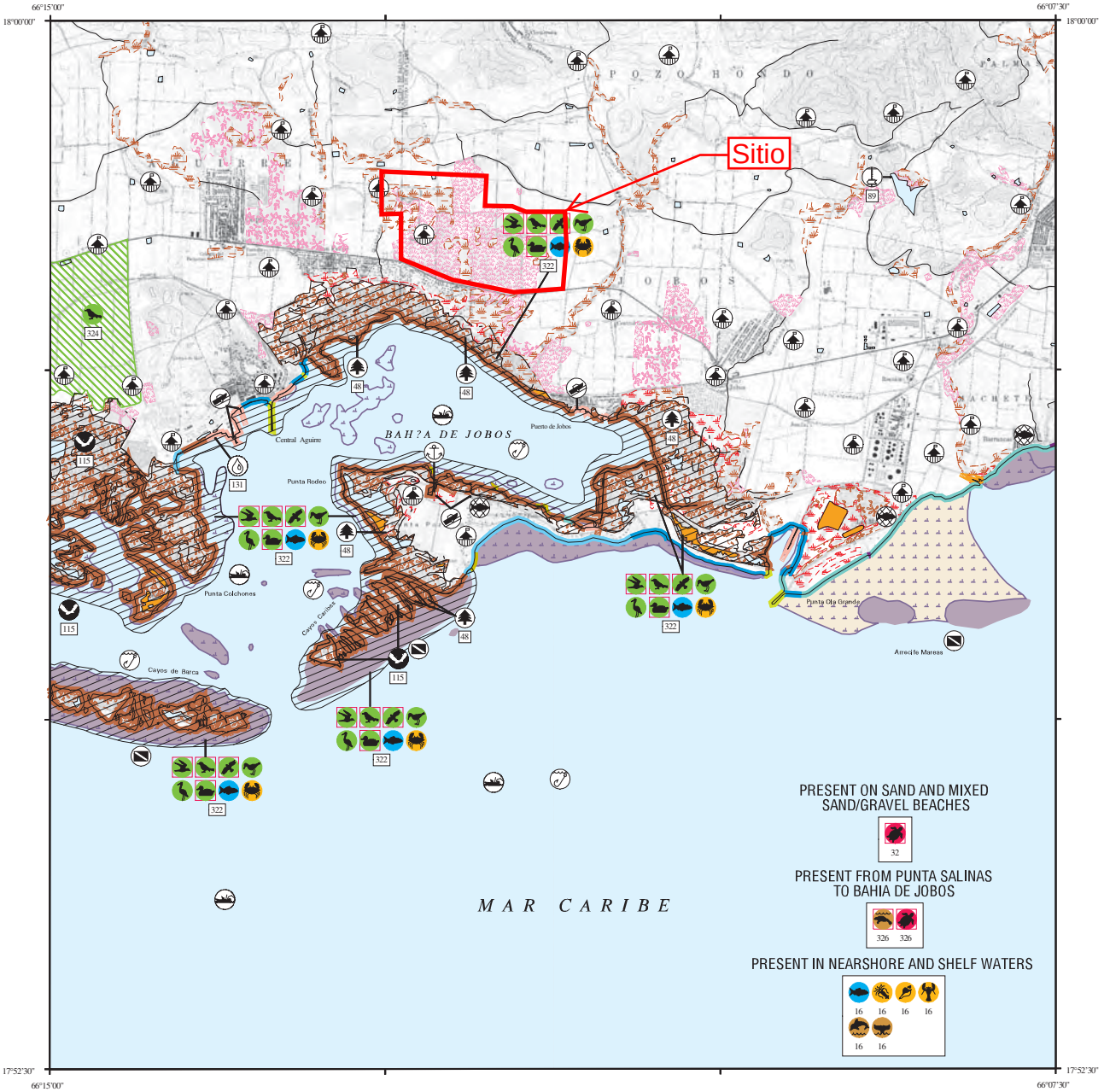
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ANEJO B:

MAPA DEL ATLAS DE ÍNDICE DE SENSITIVIDAD AMBIENTAL DE LA NOAA

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ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY CLIFFS
- 1B EXPOSED, SOLID MAN–MADE STRUCTURES
- 2A EXPOSED WAVE–CUT PLATFORMS IN BEDROCK
- 2B SCARPS AND STEEP SLOPES IN MUDDY SEDIMENTS
- 3A FINE– TO MEDIUM–GRAINED SAND BEACHES
- 4 COARSE–GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN–MADE STRUCTURES
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED VEGETATED LOW BANKS
- 10D MANGROVES
- SALT– AND BRACKISH–WATER MARSHES
- FRESHWATER MARSHES
- FRESHWATER SWAMPS
- FRESHWATER SCRUB/SHRUB

STREAM REACHES (RSI)

- 1 QUIET POOL; LOW–SENSITIVE BANKS
- 2 STRAIGHT CHANNEL WITH CURRENTS; LOW–SENSITIVE BANKS (MUD DOMINANT)
- 3 MEANDERING CHANNEL; SAND POINT BARS
- 4 MEANDERING CHANNEL; VEGETATED POINT BARS
- 5 RAPIDS OVER BEDROCK
- 6 MEANDERING CHANNEL; SAND AND GRAVEL POINT BARS
- 7 SPLIT CHANNEL WITH COARSE GRAVEL; SOME RAPIDS
- 8 SMALL FALLS; BOULDERS IN CHANNEL
- 9 LARGE FALLS; BOULDERS IN CHANNEL
- 10 CHANNELS WITH ASSOCIATED VULNERABLE WETLANDS
- KARST

N W E S

SCALE 1:55000

1 .5 0 1 KILOMETER

1 .5 0 1 MILE

Not For Navigation
Published: May 2000

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division

CENTRAL AGUIRRE, P.R (1982) **PR-63**

PUERTO RICO - ESIMAP 63

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting
322	American coot			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Black-necked stilt						X	X	X	X	X	X	X	X			APR-OCT
	Blue-winged teal			HIGH	X	X	X	X						X	X	X	-
	Brown pelican	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Caribbean coot	S	T	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Clapper rail			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common moorhen			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common snipe			HIGH	X	X	X	X						X	X	X	-
	Least tern	S	T						X	X	X	X	X				-
	Peregrine falcon	S	E		X	X	X	X						X	X	X	-
	Puerto Rican plain pigeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN
	Shorebirds			HIGH	X	X	X	X	X			X	X	X	X	X	-
	Sora			LOW	X	X	X	X						X	X	X	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL
	White-cheeked pintail			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN
	White-crowned pigeon				X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
	Yellow-shouldered blackbird	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
324	Mourning dove				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG
	White-winged dove				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC
	Zenaida dove				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC

FISH:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Reef fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
322	Nursery fish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-DEC	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	Caribbean spiny lobster				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Octopus				X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	-	JAN-DEC	JAN-DEC
	Queen conch				X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
322	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving
16	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X	-	-
	Whales				X	X	X	X	X	X	X	X	X	X	X	X	-	-
326	West Indian manatee	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
32	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Leatherback sea turtle	S/F	E/E			X	X	X	X	X	X	X					FEB-JUN	APR-SEP	-	APR-SEP	FEB-JUN
326	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

HUN#	Name	Owner/Manager	Contact	Phone
FOREST:				
48	BOSQUE AGUIRRE	DRNA	DIVISION DE MANEJO BOSQUES ESTATALES	787/721-5495
LOCK AND DAM:				
89	MELANIA DAM	ESTADO LIBRE ASOCIADO	ING. LUIS SUAREZ	787/864-0300
MARINE SANCTUARY:				
115	BAHIA DE JOBOS NERR	NOAA/DRNA	RESERVE MANAGER	787/853-4617

WATER INTAKE:

HUN#	Name	Owner/Manager	Location	Phone
131	AGUIRRE POWER PLANT	PREPA AGUIRRE		787/853-4700

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

ANEJO B:

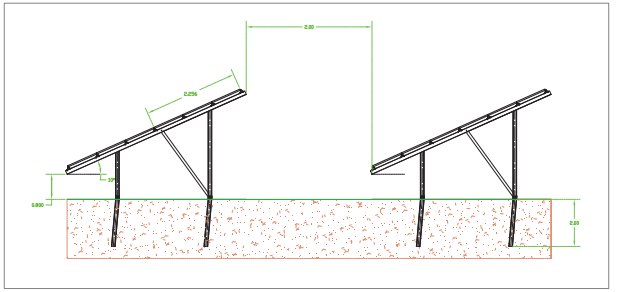
PLANO DEL PROYECTO.

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Ⓐ SALINAS 120 MW PROJECT - GENERAL LAYOUT
ESC:1/3500

GOOGLE EARTH VIEW



Ⓑ STRUCTURE DETAIL
ESC:1/125

SITE BASIC INFORMATION

Location

Country:	Puerto Rico
Elevation:	~13 mamsl

MAIN FIGURES

AC Power installed(@35ºC)	:	143.29 MWac
DC Installed Power	:	147.77 MWdc
Racking Structure	:	Fixed 10º
PV Cell Technology	:	MONO PERC

ELECTRICAL CONFIGURATION

Nameplate Power	:	535 Wdc
Quantity	:	276,210 pc
Inverter Power 35ºC)	:	1,447 kWac
Quantity	:	99
LV/MV Transformer Power	:	4,400kVA
Quantity	:	33 pc
Max. Voltage System	:	1,500 V
String Lenght	:	30 pc
Strings per Inverter	:	93

MECHANICAL CONFIGURATION

Structural Configuration	:	2P x 30
Structural Units	:	4,604

AREA

Total Fence Area	:	160 ha
Total Fence Perimeter	:	8,674 m

BESS

Total BESS AC Power	:	100,000 kW
Total BESS Capacity	:	400,000 kWh

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

REV.	DESCRIPTION	DATE	DRAWN	APPROVED
0A	PRELIMINARY	03 MAY 2021	A.R.S.	A.G.M.

BIDDER: TSK
CLIENT: AES
PROJECT: SALINAS 120 MW PROJECT

DATE	03 MAY 2021
DRAWN	A.R.S.
CHECKED	A.F.N.
APPROVED	A.G.M.

TITLE: GENERAL LAYOUT

FORMAT: A-1 | ESCALE: . | CUSTOMER DRAWING NUMBER: . | TSK DRAWING NUMBER: OFC002296-GEN-000-00 | SHEET: GROUP 0 / 0 | REV.: 0A

REV. DIC-2011

Número de Secretaría
0-JE-CC1401-SJ- 02668-
06092023

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES
P.O. BOX 366147, SAN JUAN PR 00936

SOLICITUD PARA CERTIFICACIÓN DE CATEGORIZACIÓN DE HÁBITATS NATURALES PARA LA VIDA SILVESTRE

Tipo de solicitud:

X **Nueva**

____ **Enmienda o Información Adicional** **Número de certificación anterior:** _____

1. **Nombre del peticionario:**
Garcia (Apellido paterno) Campos (Apellido materno) Pedro (Nombre) M. (Inicial)

2. **Profesión:** Ingenierro **Licencia profesional:** _____

3. **Dirección física:** #12 calle Acosta Caguas PR 00725

4. **Dirección postal:** P.O. Box 669, Caguas PR 00726

5. **Teléfono Residencial:** _____ **6. Teléfono del Trabajo:** (787) 743-4761

7. **Teléfono celular:** _____ **8. Correo electrónico (e-mail):** pmgarcia@pmggroupllc.com

8. **Número de fax:** _____

9. **Nombre del agente, consultor o representante autorizado (incluir carta de autorización):**
Walter E. Soler Figueroa

10. **Nombre del propietario o titular del terreno del proyecto:**
Clean Flexible Energy LLC, subsidiaria de AES Corporation
Apellido paterno **Apellido materno** **Nombre** **Inicial**

11. **Dirección física:** PR-3 y PR-706 Barrios Aguirre y Jobos, Municipios de Salinas y Guayama

12. **Dirección postal:** P.O. Box 669, Caguas PR 00726

13. **Teléfono residencial:** _____ **14. Teléfono del Trabajo:** _____

15. **Teléfono celular:** _____ **16. Correo electrónico (e-mail):** _____

17. **Número de fax:** _____

Información del lugar del proyecto:

18. Dirección física: PR-3 y PR-706 (Núm. Carretera Km Hm) Aguirre/Jobos (Sector Barrio) Salinas/Guayama (Municipio)

19. Zonificación del terreno: Zona Industrial 20. Cabida total: _____

20. Coordenadas Lambert (Centroide-NAD83) X: 17.980349° Y: -66.214763°

21. Descripción del acceso al predio del proyecto (dónde está localizado, cómo se llega, a quién hay que contactar para entrar, hay perros guardianes, hay portones o cercas que impiden el paso, hay caminos/carreteras de acceso, etc):_____

22. Requisitos para la radicación de esta Solicitud[1]:

Deberá cumplir con lo siguiente:

a. Solicitar copia de este formulario en la Oficina de Secretaría del Departamento y cumplimentarla adecuadamente. Asegúrese que con el formulario recibe una copia del documento titulado *"Criterios para la designación de hábitat natural en Puerto Rico mediante mitigación a través de la compra de terrenos y cesión de éstos al Departamento de Recursos Naturales y Ambientales"*. Este documento le explica cómo se establece la designación de un hábitat para efectos de la Ley 241.

b. Al radicar esta Solicitud debidamente cumplimentada en la Oficina de Secretaría del DRNA, la misma deberá estar acompañada de un escrito con la siguiente información:

i. Descripción y localización de la finca del proyecto bajo evaluación.

ii. Inventario reciente de la fauna y flora del lugar de la obra, resaltando la presencia, si alguna, de especies raras, vulnerables o en peligro de extinción o que constituyan elementos críticos de vida silvestre según las listas del DRNA o del gobierno federal.

iii. Descripción de las metodologías utilizadas para efectuar el inventario.

iv. Presencia en la finca de cuerpos de agua, pozos de agua potable, humedales, bosques, cuevas, mogotes, sumideros, descargas de aguas usadas o pluviales, playas, dunas de arena, guajonales, etc..

v. Descripción de los hábitats naturales de alto valor ecológico presentes en la finca del proyecto propuesto. Descripción de los impactos reales o potenciales del proyecto propuesto sobre estos sistemas o cualquier otro de valor natural presente.

vi. Descripción resumida de las actividades humanas pasadas realizadas en el predio del proyecto propuesto, particularmente aquéllas que hayan causado impactos permanentes.

vii. Copia legible de mapa topográfico 1:20,000 dónde se señale claramente la localización de la finca del proyecto propuesto.

viii. Foto aérea dónde se señale claramente la localización de la finca del proyecto propuesto.

ix. Plano de la finca del proyecto (en coordenadas NAD83) dónde se señale detalladamente la huella de impacto de la obra propuesta.

x. Determinación de la Categoría de Hábitat Natural que se recomienda para la finca del proyecto propuesto a tenor con la información sometida y las disposiciones de la Ley 241 y sus reglamentos.

xi. Descripción del área propuesta para mitigación, según la Categoría de Hábitat Natural recomendada y las disposiciones de la Ley 241 y sus reglamentos.

AUTORIZO AL PERSONAL DEL DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES, DEBIDAMENTE IDENTIFICADO, A ENTRAR A INSPECCIONAR LA PROPIEDAD QUE AQUÍ SE SEÑALA DE SER NECESARIO PARA EVALUAR ESTA SOLICITUD. ADEMÁS, CERTIFICO QUE LA INFORMACIÓN QUE SE SOMETE EN ESTA SOLICITUD Y EN LOS DOCUMENTOS QUE LA ACOMPAÑEN ES CORRECTA, SEGÚN MI MEJOR SABER Y ENTENDER.

Walter E. Soler Figueroa	_____	1-09-23
Nombre del peticionario o representante autorizado	**Firma**	**Fecha (DD-MM-AA)**

Para uso de la Oficina de Secretaría

_____

Firma del funcionario que recibe la solicitud

1 Estos requisitos se desprenden de la Ley 241 del 15 de agosto de 1999 ("Nueva Ley de Vida Silvestre de Puerto Rico"), de los Reglamentos de Vida Silvestre Núms. 6765 y 6766 y de la Orden Administrativa Núm 2010-09.

AMBIENTA INC.
Environmental Consultants

27 de junio de 2023

Mercemar Rodríguez Santiago
Secretaria Auxiliar de Permisos, Endosos y Servicios Especializados
Departamento de Recursos Naturales y Ambientales

SOLICITUD PARA CERTIFICACIÓN DE CATEGORIZACIÓN
DE HÁBITATS NATURALES PARA LA VIDA SILVESTRE.
LÍNEA DE TRANSMISIÓN PARA EL PROYECTO DE SISTEMA SOLAR-FOTOVOLTAICO
AES SALINAS, SALINAS, PUERTO RICO.

Estimada Sra. Rodríguez:

Clean Flexible Energy, LLC (Dueño) propone la construcción de una línea eléctrica de aproximadamente 4.717 kilómetros de 115KV para conectar el propuesto sistema solar fotovoltaico a ubicar al norte y este de las carreteras estatales PR-3 y PR-706, respectivamente, entre los barrios Aguirre y Jobos de los municipios de Salinas y Guayama a una subestación eléctrica ubicada en terrenos privados al oeste del proyecto solar. Dicha ruta discurrirá por 3,227 metros dentro del predio solar, evaluado anteriormente en la Evaluación Ambiental 2021-393310-DEA-007819, cruza la PR-706 entrando a terrenos privados donde se extiende por 1,500 metros hasta el punto de conexión.

La Línea de Transmisión propuesta sale del predio solar cruzando la PR-706 , extendiéndose 60 metros en dirección noroeste, donde gira hacia el norte por aproximadamente 190 metros para luego girar al oeste nuevamente por aproximadamente 680 metros y finalmente girar al suroeste por aproximadamente 570 metros hasta el punto de conexión. La línea de interconexión tendrá una servidumbre aproximada de 40 metros de ancho.

El proyecto solar fotovoltaico matriz (AES-Salinas) obtuvo dos certificaciones de hábitats para las localidades donde se propone la obra, estas son: O-SE-CCH01-SJ-01881-19052021 para el Sistema Fotovoltaico AES-Salinas (Salinas A) y O-SE-CCH01-SJ-01947-04082021 para el Sistema Fotovoltaico AES-Salinas (Salinas B); ambas, Hábitat de Valor Ecológico (**Categoría 4**).

PMG Associates, Inc. presenta para consideración, la documentación necesaria para obtener la *Certificación de la Categorización de Hábitats Naturales para la Vida Silvestre* para el área donde se propone la Línea de Transmisión para el Proyecto de el Sistema solar-fotovoltaico AES Salinas (en adelante, el Proyecto).

A continuación, se presenta la información requerida en el formulario de la solicitud.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
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i. Descripción y localización de la finca del proyecto bajo evaluación:

El área donde se propone la instalación de la Línea de Transmisión está localizada en la carretera PR-706, al sur de la carretera PR-53 en el barrio Aguirre del Municipio de Salinas. El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna terrestre en el cual se pueden observar varios mapas del área, entre éstos, la **Figura 1** con el mapa del cuadrángulo topográfico mostrando la ubicación del Proyecto. En el área de estudio se identificaron tres asociaciones vegetales, estas son: pastizales no manejados, áreas de arbustos y matorrales, y áreas forestadas. El área de estudio se encuentra en un área de baja biodiversidad que fue previamente perturbada y utilizada en años pasados para la agricultura y posteriormente para usos industriales; actualmente está siendo utilizada para el pastoreo de ganado vacuno.

ii. Descripción de las metodologías utilizadas para realizar el inventario:

El **Anejo A** de este memorando contiene el estudio de flora y fauna realizado en el área que contendría el Proyecto, y en éste se describe la metodología utilizada para la realización del inventario de flora y fauna. En general, después de una revisión de la literatura para la zona se realizó un muestreo sistemático mediante el recorrido y evaluación de toda el área de construcción del Proyecto.

iii. Presencia de cuerpos de agua, pozos de agua potable, humedales, bosques, cuevas, mogotes, sumideros, descargas de aguas usadas o pluviales, playas, dunas de arena, guajonales, etc. en la finca:

Basado en la información evaluada y en la inspección y reconocimiento del área que contendrá el Proyecto, no se observaron cuevas, sumideros, playas, dunas de arena, humedales, pozos de agua o guajonales. Cabe señalar que el Canal de Riego Guamaní Oeste cruza el área de estudio en dos secciones al este y en el centro. La Quebrada Aguas Verdes cruza el área de estudio por el extremo este hasta descargar en la bahía de Jobos.

Basado en la información suministrada, se concluye que no se prevé que hábitats de valor ecológico se vean afectados significativamente por el desarrollo propuesto.

iv. Descripción de hábitats naturales de alto valor ecológico presentes en la finca a localizar el proyecto propuesto. Descripción de los impactos reales o potenciales del proyecto propuesto sobre estos sistemas o cualquier otro de valor natural presente:

Los hábitats naturales que se observan en el predio consisten de pastizales, vegetación arbustiva, matorrales y rodales de árboles, dominadas mayormente por especies exóticas y algunas especies nativas.

Dentro del área de estudio no se encontraron áreas ecológicamente sensitivas. No se documentaron especies de flora con designación especial o protegidas.

Cabe señalar que se observo (1) especímenes del ave endémica *Agelaius xanthomus xanthomus* (Mariquita de Puerto Rico) en vuelo y fuera del área del proyecto. Este avistamiento se considera de carácter aleatorio y transitorio. La Mariquita esta designada

como especie en peligro de extinción a nivel estatal y federal. Este avistamiento es considerado de carácter aleatorio y transitorio, cuando los Ictéridos tienden a agruparse justo antes de la época reproductiva.

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Las áreas a ser ocupadas por el proyecto no contienen el hábitat típico que la utiliza para anidar, tampoco están incluidas en las áreas de hábitat critico para la especie; sin embargo, de forma aleatoria la especie puede utilizar el área para forrajeo, al igual que otras áreas en la vecindad del proyecto.

Si la remoción de la capa vegetal del proyecto coincide con los meses reproductivos de la Mariquita (Abril a Agosto) se recomienda establecer un protocolo de monitoreo durante dicho periodo; de detectarse la presencia de la especie, los trabajos cesarán hasta tanto la especie vuele fuera del área por sí misma y sin ser perturbada.

Basado en lo anterior y en el tipo de hábitat observado se concluye que no se prevé que hábitats de valor ecológico se vean afectados significativamente. Tomando en consideración el establecimiento de un protocolo de monitoreo para la Mariquita se concluye que no se prevé impactos sobre especies de flora y fauna consideradas como especies críticas, amenazadas o en peligro de extinción por el desarrollo propuesto.

Existe el potencial de que ocurran impactos temporeros sobre la flora y la fauna terrestre durante la construcción del Proyecto. El impacto principal sobre la vegetación será causado por la remoción de árboles para la instalación de la Línea de Transmisión. Por consiguiente, los efectos más directos a la vida silvestre resultarán de la eliminación, alteración o fragmentación de habitáculos existentes, como consecuencia del Proyecto.

Sin embargo, aunque estos impactos serán mínimos por la baja biodiversidad del área, se espera que estos efectos sean mitigados con la reforestación y la restauración y creación de habitáculos, como parte de las acciones de mitigación requeridas para el Proyecto propuesto, acciones que posiblemente se realicen fuera del predio. Por otro lado, algunos de los animales que utilizan habitáculos en el área del Proyecto podrían ser desplazados temporalmente durante la fase de construcción. Algunos de los animales desplazados podrían establecerse en habitáculos cercanos.

De igual forma, estos impactos se deben mitigar con la implementación de prácticas de ingeniería apropiadas y mediante la implantación de planes de mitigación y de manejo de las especies afectadas. Se espera que los impactos sobre la flora a ser ocasionados por el desarrollo del proyecto sean mínimos tomando en consideración las acciones de mitigación que se deben realizar con respecto a los árboles existentes.

v. Descripción resumida de las actividades humanas pasadas realizadas en el predio del proyecto propuesto, particularmente aquéllas que hayan causado impactos permanentes:

Antiguamente el área era utilizada con fines agrícolas. Actualmente algunos de los terrenos están siendo utilizados para el pastoreo y otros están en desuso. Tras el paso del Huracán María por nuestra zona, esta área fue severamente impactada, se observan muchos árboles caídos o virados.

vi. Copia legible del mapa topográfico 1:20,000 donde se señale claramente la localización de la finca del proyecto propuesto:

El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna Terrestre en el cual se pueden observar varios mapas del área, entre éstos, la **Figura 1** con el mapa del cuadrángulo topográfico mostrando la ubicación del Proyecto.

vii. Foto aérea donde se señale claramente la localización de la finca del proyecto propuesto:

El **Anejo A** de este memorando contiene el Estudio Descriptivo de Flora y Fauna Terrestre en el cual se pueden observar varios mapas del área, entre éstos, la **Figura 3** que incluye la fotografía aérea mostrando la ubicación del Proyecto.

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HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com

viii. Plano de la finca del proyecto (en coordenadas Nad 83) donde se señale detalladamente la huella de impacto de la obra propuesta:

El **Anejo B** de este memorando contiene el plano de la finca del proyecto donde se señala la huella de impacto del Proyecto propuesto.

ix. Determinación de la Categoría de Hábitat Natural que se recomienda para la finca del proyecto propuesto a tenor con la información sometida y las disposiciones de la ley 241 y sus reglamentos:

Basado en la Ley 241 (Nueva Ley de Vida Silvestre de Puerto Rico), y en sus reglamentos, Reglamento 6765 del año 2004, Reglamento para Regir la Conservación y el Manejo de la Vida Silvestre, las Especies Exóticas y la Caza en el Estado Libre Asociado de Puerto Rico, Reglamento Núm. 6766, Reglamento para regir las especies vulnerables y en peligro de extinción en el Estado Libre Asociado de Puerto Rico, y utilizando los Criterios para la designación de Hábitat Natural en Puerto Rico y su conservación, los terrenos propuestos pueden ser catalogados como: **Hábitat Natural con gran potencial de convertirse en esencial, de alto valor o de valor ecológico (Categoría 5)**, ya que se componen de terreno con una cobertura vegetal arbustiva, dominado por especies nativas y adyacentes o cercanas a áreas de alto valor ecológico.. No se prevé que ninguna especie de interés para la conservación, ni hábitats de alto valor ecológico se vean afectados significativamente por el desarrollo propuesto. Existe el potencial de que ocurran impactos temporeros sobre la flora y la fauna terrestre durante la construcción del Proyecto. El impacto principal sobre la vegetación será causado por la remoción de árboles para la construcción del proyecto. Por consiguiente, los efectos más directos a la vida silvestre resultarán de la eliminación, alteración o fragmentación de habitáculos existentes, como consecuencia de la construcción del Proyecto.

x. Descripción del área propuesta para mitigación, según la categoría de Hábitat Natural recomendada y las disposiciones de la Ley 241 y sus reglamentos:

Las acciones de mitigación del Proyecto se harán congruentemente con los requerimientos de la Ley 241. Esta mitigación será establecida según los requisitos de la Ley 241 y congruentemente con los requisitos de mitigación de árboles establecidos en el Reglamento Conjunto de OGPe, según enmendado (Regla 3.4.2). También se implementarán medidas para el control de erosión, sedimentación y polvo fugitivo entre otras.

Según lo antes expuesto, queda bajo la consideración del DRNA emitir la *Certificación de la Categorización de Hábitats Naturales para la Vida Silvestre* para el Proyecto. De tener cualquier duda o pregunta, no dude en comunicarse a su conveniencia.

Cordialmente,

Walter E. Soler-Figueroa
Presidente

Anejos.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com

ANEJO A:

ESTUDIO DE FLORA Y FAUNA TERRESTRE.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com



ESTUDIO DESCRIPTIVO DE FLORA Y FAUNA TERRESTRE

LÍNEA DE TRANSMISIÓN ELÉCTRICA PARA EL PROYECTO DE SISTEMA DE ENERGÍA SOLAR-FOTOVOLTAICO AES SALINAS

SALINAS, PUERTO RICO

PREPARADO PARA:

PMG ASSOCIATES, INC.

PREPARADO POR:

AMBIENTA INC.
ENVIRONMENTAL CONSULTANTS

AGOSTO 2023

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HC2 Box 14029 Aguas Buenas, PR 00703 FAX (787) 732-0907 ambienta@caribe.net

1.0 RESUMEN EJECUTIVO

Clean Flexible Energy, LLC (Dueño) propone la construcción de una línea eléctrica de aproximadamente 4.717 kilómetros de 115KV para conectar el propuesto sistema solar fotovoltaico a ubicar al norte y este de las carreteras estatales PR-3 y PR-706, respectivamente, entre los barrios Aguirre y Jobos de los municipios de Salinas y Guayama a una subestación eléctrica ubicada en terrenos privados al oeste del proyecto solar. Dicha ruta discurrirá por 3,227 metros dentro del predio solar, evaluado anteriormente en la Evaluación Ambiental 2021-393310-DEA-007819, cruza la PR-706 entrando a terrenos privados donde se extiende por 1,500 metros hasta el punto de conexión.

Este documento constituye el Estudio Descriptivo de Flora y Fauna Terrestre (el Estudio) necesario como requisito de la documentación ambiental para el proyecto. El propósito de este estudio es caracterizar los sistemas naturales presentes en la Propiedad y así obtener una imagen integral y una herramienta de planificación para el futuro proyecto. Previo a la realización del estudio de campo de flora y fauna se hizo una revisión de la literatura científica disponible sobre estudios en el área del Proyecto.

Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales no manejados, arbustos y rodales de árboles típicos de áreas previamente perturbadas y utilizadas en años pasados para la agricultura. Actualmente los terrenos están siendo utilizados para el pastoreo de ganado vacuno.

Se identificaron un total de sesenta y dos (62) especies de plantas de entre treinta (30) familias. Por otro lado, un total de treinta y tres (33) especies de fauna fueron identificadas, siendo las aves el grupo dominante, de las cuales se identificó un total de veinte y seis (26) especies. Ninguna de las especies de flora o fauna identificadas posee designación especial.

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HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.comt

2.0 INTRODUCCIÓN

Clean Flexible Energy, LLC (Dueño) propone la construcción de una línea eléctrica de aproximadamente 4.717 kilómetros de 115KV para conectar el propuesto sistema solar fotovoltaico a ubicar al norte y este de las carreteras estatales PR-3 y PR-706, respectivamente, entre los barrios Aguirre y Jobos de los municipios de Salinas y Guayama a una subestación eléctrica ubicada en terrenos privados al oeste del proyecto solar. Dicha ruta discurrirá por 3,227 metros dentro del predio solar, evaluado anteriormente en la Evaluación Ambiental 2021-393310-DEA-007819, cruza la PR-706 entrando a terrenos privados donde se extiende por 1,500 metros hasta el punto de conexión (ver **Figura 1**).

La Línea de Transmisión propuesta sale del predio solar cruzando la PR-706 , extendiéndose 60 metros en dirección noroeste, donde gira hacia el norte por aproximadamente 190 metros para luego girar al oeste nuevamente por aproximadamente 680 metros y finalmente girar al suroeste por aproximadamente 570 metros hasta el punto de conexión. La línea de interconexión tendrá una servidumbre aproximada de 40 metros de ancho.

El Proyecto propuesto tiene como propósito la utilización de áreas actualmente algunas se encuentran en desuso y otras están siendo utilizadas para el pastoreo, para la instalación de la Línea de Transición para el proyecto de energía renovable AES Salinas.

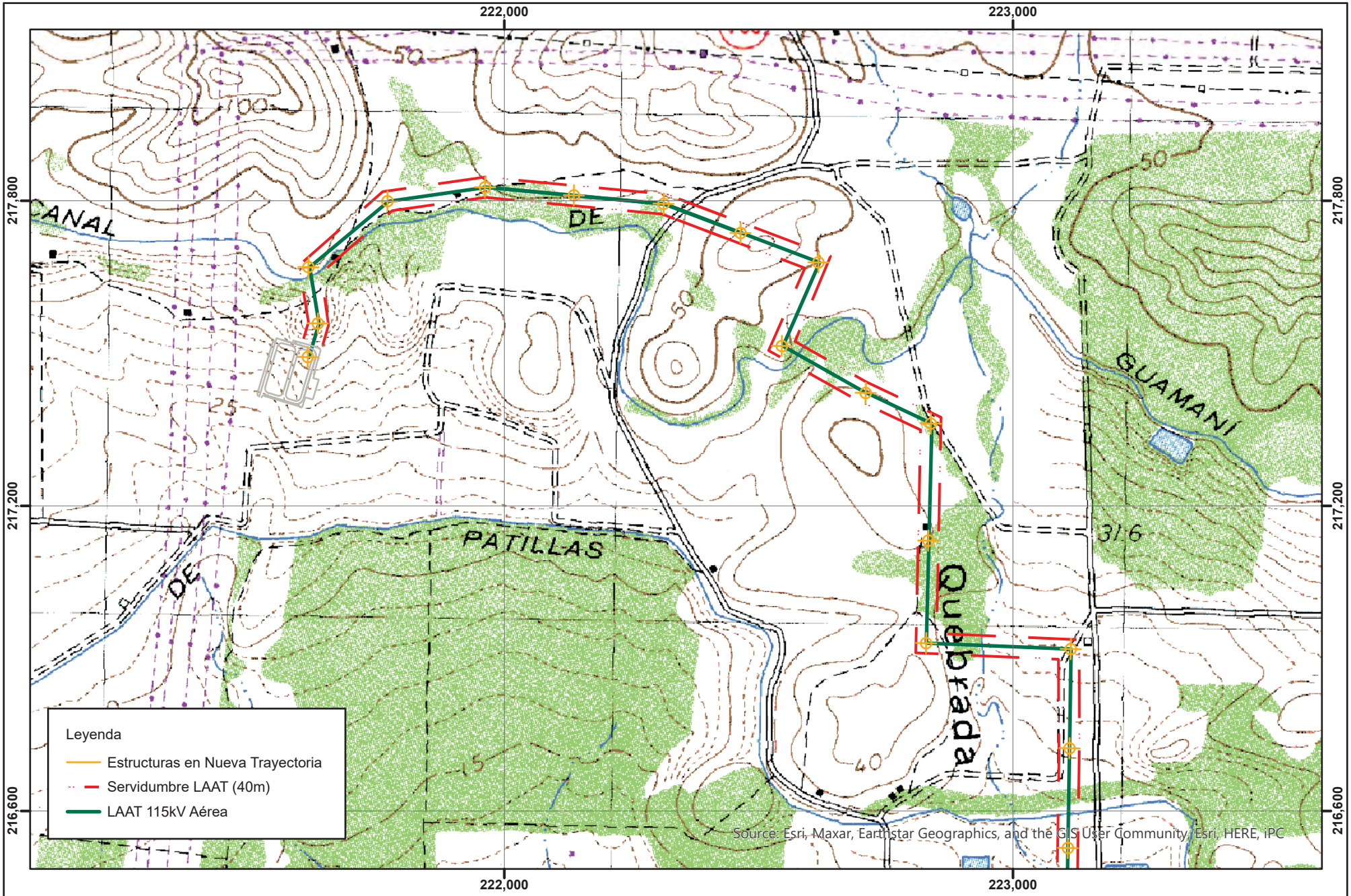
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Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales no manejados, arbustos y rodales de árboles típicos de áreas previamente perturbadas y utilizadas en años pasados para la agricultura. Actualmente los terrenos están siendo utilizados para el pastoreo de ganado vacuno.

Como parte de la recopilación de datos se desarrolló este estudio descriptivo de flora y fauna terrestre correspondiente al predio completo que contendrá el Proyecto. Esta información provee detalles de la composición vegetal y animal en el área propuesta para el Proyecto.

En el Estudio se presentan datos generales que intentan describir algunos componentes ambientales del área de estudio. Esto pretende complementar la información para presentar una imagen integral.

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:10,000

320 160 0 320 Meters



Figura 1: Mapa de Localización

Salinas PV-LT

Date: 8/21/2023

PMG AND ASSOCIATES

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3.0 DESCRIPCIÓN GENERAL DEL ÁREA DE ESTUDIO

Al momento de la realización del estudio la vegetación predominante en el área del Proyecto consiste mayormente de pastizales no manejados, arbustos y rodales de árboles típicos de áreas previamente perturbadas y utilizadas en años pasados para la agricultura. Actualmente los terrenos están siendo utilizados para el pastoreo de ganado vacuno. A continuación se describen los componentes principales y relevantes para este estudio. Dicha información es complementada con las figuras y los anejos correspondientes.

3.1 LOCALIZACIÓN

El área donde se propone la instalación de la Línea de Transmisión está localizada en la carretera PR-706, al sur de la carretera PR-53 en el barrio Aguirre del Municipio de Salinas.

3.2 TOPOGRAFÍA

La topografía del predio es variable con áreas llanas y colinas. Su elevación varía de 30 a 50 metros sobre el nivel del mar.

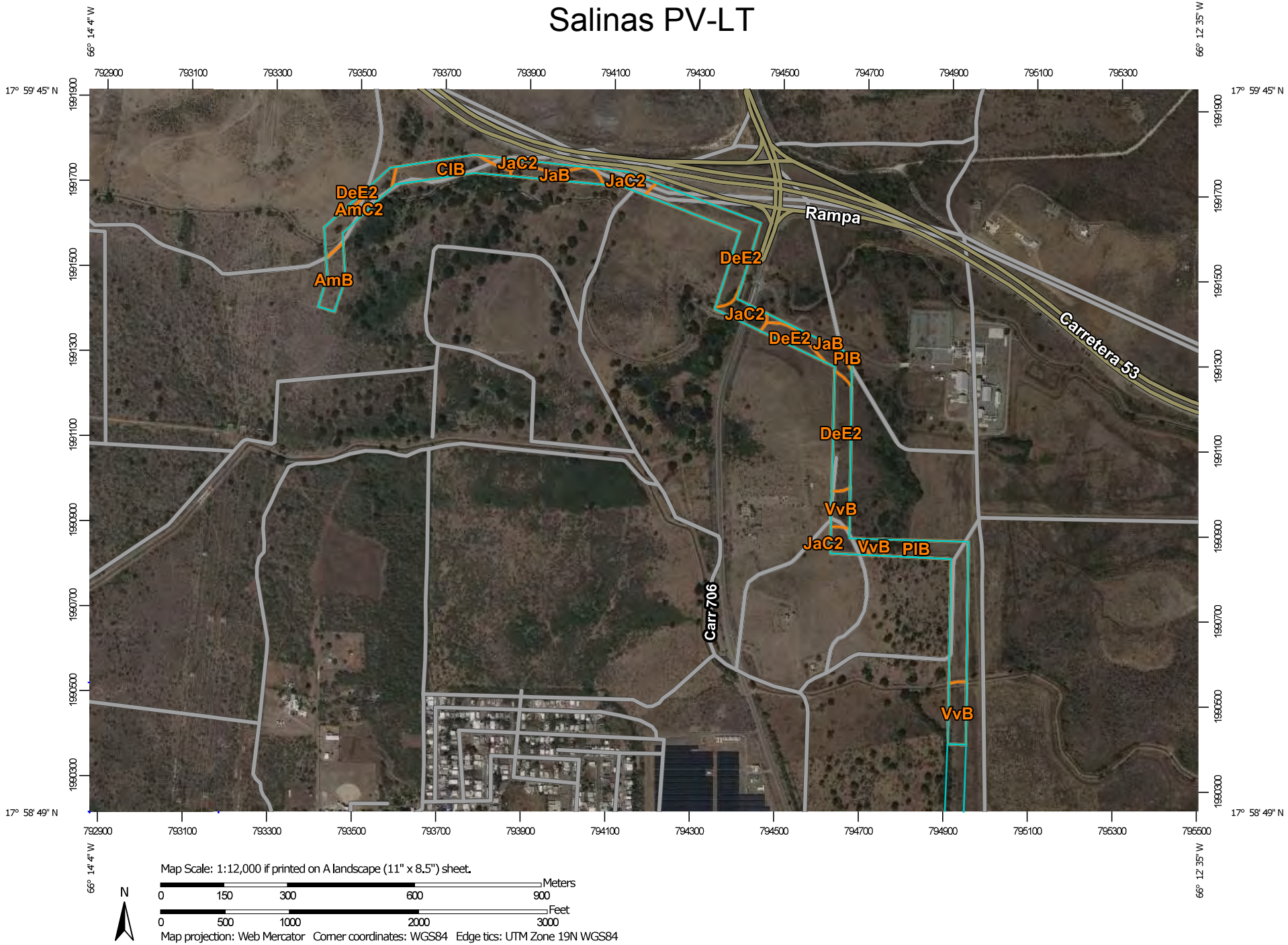
3.3 SUELOS

Según el *Catastro de Suelos del Área de Humacao de Puerto Rico* del Servicio de Conservación de Suelos de los Estados Unidos ("Soil Survey of the Humacao Area of Puerto Rico", U.S. Soil Conservation Service), el predio contiene ocho (8) tipo de suelo: la serie Amelia gravelly clay loam (AmB), la serie Amelia gravelly clay loam (AmC2), la serie Coamo clay loam (CIB), la serie Descalabrado clay loam (DeE2), la serie Jacana clay (JaB), la serie Jacana clay (JaC2), la serie Pasto Seco clay (PIB) y la serie Vives clay (VvB) (ver **Figura 2**). A continuación se presenta la descripción del suelo del área según el catastro de suelos.

Serie Amelia gravelly clay loam (AmC2): Estos suelos se encuentran en las pendientes y en los llanos inundables a lo largo de los ríos. Son de buen drenaje y permeabilidad moderada. Con capacidad de agua baja y de fertilidad baja. Este suelo ha sido usado para la siembra de caña de azúcar y gramas de pastoreo.

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Figura 2: Mapa de Suelos
Salinas PV-LT



Serie Amelia gravelly clay loam (AmC2): Estos suelos se encuentran en las pendientes del área semiárida. Son de buen drenaje y permeabilidad moderada. Con capacidad de agua baja y de fertilidad baja. Este suelo ha sido usado para la siembra de caña de azúcar y gramas de pastoreo.

Serie Coamo clay loam (ClB): Estos suelos casi nivelados se encuentran en las planicies inundables. Son de pobre drenaje y permeabilidad lenta. Con capacidad de agua alta y de fertilidad alta. Este suelo ha sido usado para la siembra de caña de azúcar y gramas de pastoreo.

Serie Descalabrado clay loam (DeE2): Estos suelos se encuentran en los lados y crestas de las montañas. Son de buen drenaje y permeabilidad moderada. Con capacidad de agua moderada y de mediana fertilidad. Este suelo ha sido usado para pastoreo por muchos años.

Serie Jacana clay (JaB): Estos suelos se encuentran en las pendientes del área semiárida. De buen drenaje y permeabilidad moderadamente lenta. Estos suelos tienen serias limitaciones para la agricultura por sus pendientes moderadas, el riesgo de erosión y lo difíciles para trabajar.

Serie Jacana clay (JaC2): Estos suelos se encuentran en las pendientes y en las colinas bajas del área semiárida. De buen drenaje y permeabilidad moderadamente lenta. La poca precipitación de lluvia es una limitación severa para la agricultura.

Pasto Seco clay (PIB): Estos suelos se encuentran en las terrazas y en las planicies aluviales del área semiárida. Son moderadamente bien drenados y permeabilidad lenta. Su dificultad para ser trabajados y su capacidad para dilatarse son limitaciones para la agricultura. Comúnmente esta en pastizales. Si es irrigado puede ser utilizado para la caña de azúcar.

Vives Clay (VvB): Estos suelos se encuentran en las terrazas y en las planicies aluviales del área semiárida. Son de buen drenaje y moderada permeabilidad. De alta capacidad de agua y fertilidad. La poca lluvia, sus pendientes y el riesgo a la erosión son limitaciones moderadas para la agricultura. Comúnmente esta en pastizales. Si es irrigado puede ser utilizado para diferentes cultivos y la caña de azúcar.

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3.4 CLIMA

El área de estudio se encuentra en la zona bosque seco costero, según el sistema de zonas de vida de Holdrige. La temperatura diaria promedio fluctúa de 85.8 °F a 91.4°F. La lluvia anual promedio fluctúa de 600mm a 1,000mm y es más frecuente durante los meses de septiembre a noviembre. La evaporación excede la precipitación. La humedad relativa promedio es 80%. Los vientos soplan usualmente del este.

3.5 COMPONENTES BIÓTICOS

La zona de vida ecológica en la que se encuentra el Proyecto propuesto se conoce como Bosque Seco Subtropical (Ewel y Whitmore, 1973). Aproximadamente el 13.8% del área total de Puerto Rico se encuentra bajo esta clasificación. El clima, el suelo, las escorrentías y otros factores le dan forma y estructura a las asociaciones florísticas encontradas en esta zona de vida.

En esta zona de vida la agricultura es mayormente marginal, excepto con riego. La producción de carbón fue común en esta zona pero esta práctica está casi extinta. Entre las especies más comunes de esta zona de vida se encuentran: el Ucar, (*Bucida buceras*), el Dildo (*Pilosocereus royenii*), el bucayo gigante (*Erythrina poeppigiana*), la guaba (*Inga vera*), el Bayahonda (*Prosopis juliflora*), el Tachuelo (*Pictetia aculeata*), el Botón de cadete (*Leucaena leucocephala)* y el Guayacán (*Guaiacum officinale*), entre otras.

No obstante, basado en las fotografías aéreas históricas del área, la vegetación del predio ha sido extensamente alterada en el pasado. Las asociaciones florísticas presentes no presentan la forma y estructura típica de bosques naturales encontradas en esta zona de vida. Esto se evidencia en su contenido herbáceo, en sus gramíneas dominantes y en las especies de árboles comunes presentes. La **Figura 3** muestra la fotografía aérea del área.

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:10,000

320 160 0 320 Meters



Figura 3: Fotografía Aérea

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Date: 8/21/2023

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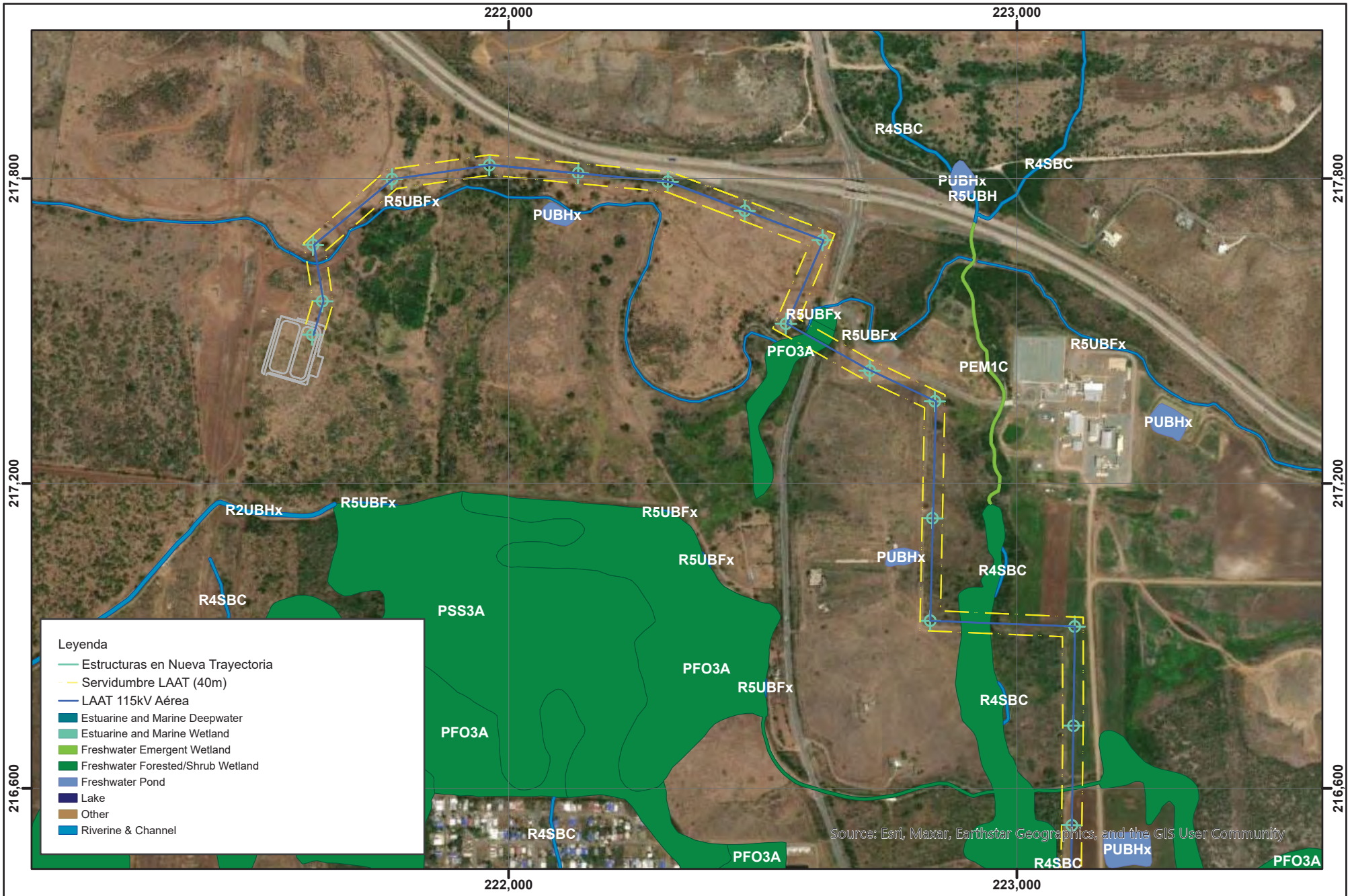
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3.6 HIDROLOGÍA Y HUMEDALES

La hidrología del predio está caracterizada por el flujo de la escorrentía pluvial y por la topografía. El Canal de Riego Guamaní Oeste cruza el área de estudio en dos secciones al este y en el centro. La Quebrada Aguas Verdes cruza el área de estudio por el extremo este hasta descargar en la bahía de Jobos.

Los mapas del Inventario Nacional de Humedales ("NWI Maps", por sus siglas en inglés) del Servicio de Pesca y Vida silvestre de E.U. (USFWS) muestran algunas localidades de humedales dentro del área de estudio. Sin embargo, en la gran mayoría de estas áreas no se observaron húmedas ni vegetación hidrofítica. La **Figura 4** muestra el Mapa del Inventario Nacional de Humedales.

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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Figura 4: Mapa de Humedales (NWI)

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4.0 METODOLOGÍA

Esta sección describe el procedimiento utilizado para llevar a cabo el estudio de flora y fauna y los criterios de selección para las áreas de estudio. Las investigaciones se llevaron a cabo de acuerdo a los procedimientos establecidos por el Departamento de Recursos Naturales y Ambientales de Puerto Rico (DRNA) y el Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS, por sus siglas en inglés), con evaluaciones de campo a lo largo de toda la Propiedad que contendrá el Proyecto.

4.1 REVISIÓN DE LITERATURA

Previo a la realización del estudio de flora y fauna se hizo una revisión de la literatura científica disponible sobre estudios previos en el área del Proyecto o su vecindad. También se hizo una consulta con el Inventario de Especies Críticas de la Oficina de Patrimonio Natural del DRNA. Dicho inventario incluye todas las especies protegidas por leyes estatales y federales, además de otras especies cuyas poblaciones sean bajas o que sean indicativas de habitáculos específicos dentro del Estado Libre Asociado de Puerto Rico. Esta información fue validada en el campo por medio de las visitas realizadas al área del Proyecto por parte de nuestro equipo de científicos. También se revisaron los mapas del Atlas del Índice de Sensitividad Ambiental (ESI Atlas, por sus siglas en inglés) de la Administración Oceánica y Atmosférica Nacional de Estados Unidos del año 2002 (NOAA, por sus siglas en inglés).

4.2 TRABAJO DE CAMPO

Se realizo una visita de reconocimiento con el fin de familiarizarse con las distintas áreas de la Propiedad así como para identificar los límites del predio. Dicha visita también sirvió para validar la información recopilada de diversos documentos y de los mapas de información geográfica (topográfico, foto aérea, suelos, humedales, planos de agrimensura y diseño, entre otros). Esta información fue analizada en conjunto permitiéndonos tener una mejor comprensión e imagen integral de las condiciones actuales de la Propiedad.

El trabajo de campo se realizó durante el mes de julio de 2023. El área del Proyecto fue recorrida en su totalidad sin tener que hacer uso de la metodología de cuadrantes o transeptos.

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4.3 ANÁLISIS DE DATOS

La identificación de especies encontradas en la Propiedad se hizo principalmente en el campo. Aquellas especies que no se pudieron identificar en las visitas fueron identificadas en el laboratorio utilizando especímenes recolectados en el campo o mediante fotos tomadas durante las visitas. La identificación de plantas y animales se corroboró utilizando libros de referencia y guías de campo, tales como Little, Woodbury y Wadsworth (1974); Liogier (1985; 1988; 1991; 1995; 1997); Acevedo-Rodríguez y Woodbury (1985); Proctor (1989); Más y García-Molinari (2006); Raffaele et al.(1998), Rivero (1998); Little y Wadsworth (1999); Acevedo-Rodríguez (2003); Acevedo-Rodríguez y Strong (2005); Acevedo-Rodriguez (1996); y Axelrod (2011).

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5.0 RESULTADOS Y DISCUSIÓN

A continuación se presentan los resultados del Estudio. El **Anejo A** incluye documentación fotográfica del área estudiada.

5.1 FLORA

Dentro del área propuesta para el Proyecto se identificaron un total de sesenta y dos (62) especies de plantas de entre treinta (30) familias. Los terrenos propuestos evidencian haber sido deforestados en el pasado y poseen una baja biodiversidad. La **Tabla 1** incluye la lista completa de las especies de flora que se observaron en la Propiedad que contendrá el Proyecto.

TABLA 1: INVENTARIO DE FLORA OBSERVADA.

Nombre Científico	**Nombre común**	**Familia**
Achyranthes aspera L. *var. aspera*	Rabo de gato	Amaranthaceae
Amaranthus dubius Mart.	Bledo	Amaranthaceae
Andira inermis (W. Wr.) DC	Moca	Fabaceae
Axonopus compresus (Sw.) P. Beauv.	Grama colorada	Poaceae
Azadirachta indica A. Juss.	Neem	Meliaceae
Bidens alba (L.) DC. *var. radiata*	Margarita silvestre	Asteraceae
Bourreria succulenta Jacq.var. succulenta	Palo de vaca	Boraginaceae
Calotropis procera (Aiton) W.T. Aiton	Algodón de seda	Asclepiadaceae
Chloris barbata (L.) Sw.	Horquetilla morada	Poaceae
Cissus trifoliata L.	Bejuco de caro	Vitaceae
Cissus verticillata (L.) Nicholson & Jarvis	Bejuco de caro	Vitaceae
Cleoserrata speciosa(Raf.) Iltis, Novon	-	Cleomaceae
Coccoloba microstachya Willd.	Uvillo	Polygonaceae
Commelina diffusa Burm. f.	Cohitre	Commelinaceae
Comocladia dodonea (L.) Urban	Carrasco	Anacardiaceae
Cordia colococca L.	Cerezo	Boraginaceae
Cynodon dactylon (L.) Pers.	Bermuda común	Poaceae
Cynodon nlemfuensis Vanderyst	Yerba de estrella	Poaceae
Digitaria eriantha Steud.	Pangola	Poaceae
Echinocloa colona (L.) Link	Arrocillo	Poaceae
Eugenia foetida Pers.	Pico de paloma	Myrtaceae
Euphorbia heterophylla L.	Lechecilla	Euphorbiaceae
Euphorbia prostata Aiton.	Lechecillo	Euphorbiaceae

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CONTINUACIÓN TABLA 1: INVENTARIO DE FLORA OBSERVADA.

Nombre Científico	**Nombre común**	**Familia**
Gossypium hirsutum L.	Algodón	Malvaceae
Guarea guidonia (L.) Sleumer	Guaraguao	Meliaceae
Guazuma ulmifolia Lam.	Guacima	Malvaceae
Indigofera spicata Forsk.	-	Fabaceae-Faboideae
Ipomoea tiliacea (Willd.) Choisy	Bejuco de puerco	Convolvulaceae
Jasminun fluminense Vell.	Jazmin de canario	Oleaceae
Jatropha curcas l.	Tartago	Euphorbiaceae
Leucaena leucocephala (Lam.) DeWit	Botón de cadete	Mimosoideae
Ludwigia octovalvis (Jacq.) Raven	Yerba de clavo	Onagraceae
Macfadyena unguis-cati (L.) A. Gentry	Bejuco de gato	Bignoniaceae
Malachra capitata (L.) L.	Malvavisco	Malvaceae
Malvastrum americanum (L.) Torr.	Malva silvestre	Malvaceae
Megatyrsus maximus (Jacq.)	Yerba de guinea	Poaceae
Melanthera nivea (L.) Small	Yerba de cabra	Asteraceae
Melochia pyramidata L.	Bretonica piramidal	Sterculiaceae
Merremia quinquefolia (L.) Hallier	Batatilla blanca	Convolvulaceae
Mimosa pudica L.	Moriviví	Mimosoideae
Opuntia repens Bello	Cactus saltarín	Cactaceae
Paspalum conjugatum Berg.	Horquetilla blanca	Poaceae
Paspalum fasciculatum Willd.	Yerba venezolana	Poaceae
Pictetia aculeata (Vahl) Urb.	Tachuelo	Papilionoideae
Piscidia carthagenensis Jacq.	Ventura	Fabaceae
Pithecellobium dulce (Roxb.) Benth.	Guama americano	Mimosoideae
Prosopis juliflora (Sw.) DC.	Bayahonda	Fabaceae
Randia aculeata L.	Tintillo	Apocynaceae
Rauvolfia virdis Roem.& Schult	Muñeco	Fabaceae
Ruellia tuberosa L.	-	Acanthaceae
Samanea saman (Jacq.) Merr.	Samán	Mimosoideae
Senna obtusifolia (L.) Irwin & Barneby	Dormidera	Caesalpinioideae
Sida acuta Burm.	Escoba blanca	Malvaceae
Sida rhombifolia L.	Escoba colorada	Malvaceae
Sorghum halepense (L.) Pers.	Yerba Johnson	Solanaceae
Sphorobolus indicus (L.) R. Br.	Cerrillo	Poaceae
Synedrella nodiflora (L.) Gaertn.	Serbatana	Asteraceae
Tabebuia aurea (Manso) Benth. & Hook.	Roble plateado	Bignoniaceae
Terminalia buceras (L.) C. Wright	Ucar	Combretaceae
Trema micranthum (L.) Blume	Guacimilla	Ulmaceae
Urochloa mutica (Forssk.) T.Q.Nguyen	-	Poaceae
Waltheria indica L.	Malvabisco	Sterculiaceae

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El terreno bajo estudio se encuentra cubierto en su mayoría por pastizales no manejados, arbustos y rodales de árboles típicos de áreas previamente perturbadas y utilizadas en años pasados para la agricultura; actualmente son utilizados para el pastoreo de ganado. Las especies dominantes en el predio son la gramínea *Digitaria eriantha* (Pangola) y el árbol *Terminalia buceras* (Ucar). Durante el estudio de campo no se encontró ninguna especie de flora considerada como crítica, amenazada o en peligro de extinción.

5.2 FAUNA

En lo que respecta a la fauna del área del Proyecto, se observó un total de treinta y tres (33) especies de fauna fueron identificadas, siendo las aves el grupo dominante, de las cuales se identificó un total de veinte y seis (26) especies. Las especies de aves más comunes dentro del predio son la Mozambique (*Quiscalus niger*) y la Tórtola Aliblanca (*Zenaida asiatica*). También se observaron cuatro (4) especies de reptiles, una (1) especie de anfibio y dos (2) de insecto. La **Tabla 2** incluye la lista de las especies de fauna observadas en el área del Proyecto.

TABLA 2: INVENTARIO DE FAUNA OBSERVADA.

Nombre Científico	**Nombre Común**	**Common Name**
Aves		
Agelaius xanthomus	Mariquita de Puerto Rico	Yellow-shouldered Blackbird
Anas bahamensis	Pato quijada colorada	White-cheeked pintail
Ardea alba	Garza Real	Great Egret
Buteo jamaicensis	Guaraguao Colirrojo	Red-tailed Hawk
Cathartes aura	Aura Tiñosa	Turkey Vulture
Charadrius vociferus	Chorlo Sabanero	Killdeer
Coereba flaveola	Reinita Común	Bananaquit
Columbina passerina	Rolita	Common Ground-Dove
Contopus portoricensis	Bobito de Puerto Rico	Lesser Antillean Pewee
Crotophaga ani	Garrapatero	Smooth-billed Ani
Dendrocygna arborea	Chiriría antillana	West Indian whistling duck
Falco sparverius	Falcón Común	American Kestrel
Icterus icterus	Turpial	Venezuelan Troupial
Ixobrychus exilis	Martinetito	Least Bittern
Ixobrychus exilis	Garza Ganadera	Cattle Egret
Lonchura punctulata	Gorrión Canela	Nutmeg Mannikin
Mimus polyglottos	Ruiseñor	Northern Mockingbird

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CONTINUACIÓN TABLA 2: INVENTARIO DE FAUNA OBSERVADA.

Nombre Científico	**Nombre Común**	**Common Name**
Molothrus bonariensis	Tordo Lustroso	Shiny Cowbird
Quiscalus niger	Mozambique	Greater Antillean Grackle
Streptopelia decaocto	Tórtola Collarina Euroasiática	Eurasian Collared-Dove
Tiaris bicolor	Gorrión Negro	Black-faced Grassquit
Todus mexicanus	San Pedrito	Puerto Rican Tody
Tyrannus dominicensis	Pitirre Gris	Gray Kingbird
Vireo altiloquus	Vireo Julián Chiví	Black-whiskered Vireo
Zenaida asiatica	Tórtola Aliblanca	White-winged Dove
Zenaida macroura	Tórtola Rabilarga	Mourning Dove
ANPHIBIA		
Leptodactylus albilabris	Ranita de Labio Blanco	White-lipped Frog
REPTILIA		
Anolis cristatellus cristatellus	Lagartijo Común	Common Anole
Anolis pulchellus	Lagartijo de Jardín	Grass Anole
Anolis stratulus	Lagartijo Manchado	Painted Anole
Iguana iguana	Iguana Verde	Green Iguana
INSECTA		
Aphrissa statira cubana	Mariposa Amarilla	Migrant Sulphur
Danaus plexippus	Mariposa monarca	Monarch butterfly

Por otro lado durante los trabajos de campo, se observo en vuelo y fuera del área del proyecto, un espécimen de la especie Mariquita de Puerto Rico (*Agelaius xanthomus*) esta ave está clasificada como en peligro de extinción a nivel estatal (Reglamento *Agelaius xanthomus* 6766 del DRNA) y federal (Servicio de Pesca y Vida Silvestre de EU).

5.3 REVISIÓN DE LITERATURA

Los mapas de especies críticas, amenazadas o en peligro de extinción de la Oficina de Patrimonio Natural del Departamento de Recursos Naturales y Ambientales (DRNA) de Puerto Rico y los Mapas del Atlas del Índice de Sensitividad Ambiental (ESI Atlas, por sus siglas en inglés) de la Administración Oceánica y Atmosférica Nacional de Estados Unidos del año 2002 (NOAA, por sus siglas en inglés) no muestran localidades conocidas en la Propiedad que contendrá el Proyecto con especies críticas, amenazadas, vulnerables, en peligro de extinción o con designación especial. En el **Anejo B** se incluye el ESI para el área de estudio.

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6.0 SÍNTESIS Y RECOMENDACIONES

El área de estudio está localizada en una zona de vida clasificada como bosque seco subtropical (Ewel & Whitmore, 1973). Sin embargo, la vegetación dominante no presenta las condiciones y características naturales de este tipo de zona de vida debido a los usos pasados del terreno, como actividades agrícolas y otros disturbios antropogénicos, que han contribuido con la deforestación del área.

Dentro del área de estudio no se encontraron áreas ecológicamente sensitivas. No se documentaron especies de flora con designación especial o protegidas.

Cabe señalar que se observo (1) especímenes del ave endémica *Agelaius xanthomus xanthomus* (Mariquita de Puerto Rico) en vuelo y fuera del área del proyecto. La Mariquita esta designada como especie en peligro de extinción a nivel estatal y federal. Este avistamiento se considera de carácter aleatorio y transitorio.

Basado en lo anterior y en el tipo de hábitat observado se concluye que no se prevé que hábitats de valor ecológico se vean afectados significativamente. Se concluye que no se prevé impactos sobre especies de flora y fauna consideradas como especies críticas, amenazadas o en peligro de extinción por el desarrollo propuesto.

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Ambienta Inc. Tel. (787) 510-7031 / (787) 732-0907
HC2 Box 14029 Aguas Buenas, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.comt

APÉNDICES

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HC2 Box 14029 Aguas Buenas, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.comt

APÉNDICE A:

DOCUMENTACIÓN FOTOGRÁFICA

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Foto 1: Vista típica del área de estudio.



Foto 2: Vista típica del área de estudio.

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TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.comt



Foto 3: Vista típica del área de estudio.



Foto 4: Vista típica del área de estudio.

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Foto 5: Vista típica del área de estudio.



Foto 6: Vista típica del área de estudio.

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FAX (787) 732-0907 / ambientainc@gmail.comt



Foto 7: Vista típica del área de estudio.



Foto 8: Vista típica del área de estudio.

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Foto 8: Vista típica del área de estudio.



Foto 8: Vista típica del área de estudio.

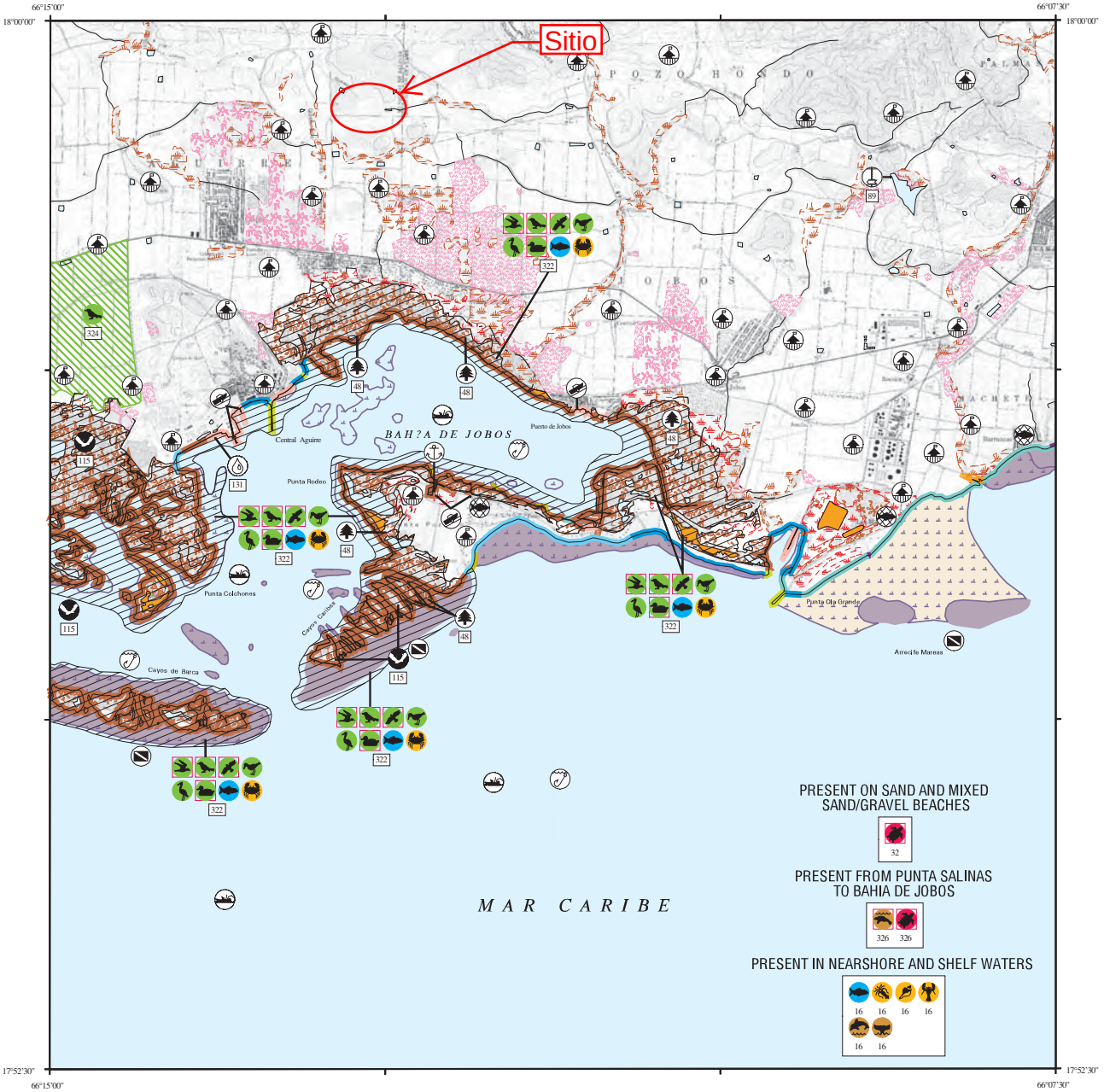
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TEL. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / ambientainc@gmail.comt

APÉNDICE B:

MAPA DEL ATLAS DE ÍNDICE DE SENSITIVIDAD AMBIENTAL DE LA NOAA

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ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY CLIFFS
- 1B EXPOSED, SOLID MAN–MADE STRUCTURES
- 2A EXPOSED WAVE–CUT PLATFORMS IN BEDROCK
- 2B SCARPS AND STEEP SLOPES IN MUDDY SEDIMENTS
- 3A FINE– TO MEDIUM–GRAINED SAND BEACHES
- 4 COARSE–GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN–MADE STRUCTURES
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED VEGETATED LOW BANKS
- 10D MANGROVES
- SALT– AND BRACKISH–WATER MARSHES
- FRESHWATER MARSHES
- FRESHWATER SWAMPS
- FRESHWATER SCRUB/SHRUB

STREAM REACHES (RSI)

- 1 QUIET POOL; LOW–SENSITIVE BANKS
- 2 STRAIGHT CHANNEL WITH CURRENTS; LOW–SENSITIVE BANKS (MUD DOMINANT)
- 3 MEANDERING CHANNEL; SAND POINT BARS
- 4 MEANDERING CHANNEL; VEGETATED POINT BARS
- 5 RAPIDS OVER BEDROCK
- 6 MEANDERING CHANNEL; SAND AND GRAVEL POINT BARS
- 7 SPLIT CHANNEL WITH COARSE GRAVEL; SOME RAPIDS
- 8 SMALL FALLS; BOULDERS IN CHANNEL
- 9 LARGE FALLS; BOULDERS IN CHANNEL
- 10 CHANNELS WITH ASSOCIATED VULNERABLE WETLANDS
- KARST

N W E S

SCALE 1:55000

1 .5 0 1 KILOMETER

1 .5 0 1 MILE

Not For Navigation
Published: May 2000

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division

CENTRAL AGUIRRE, P.R (1982) PR-63

PUERTO RICO - ESIMAP 63

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting
322	American coot			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Black-necked stilt						X	X	X	X	X	X	X	X			APR-OCT
	Blue-winged teal			HIGH	X	X	X	X						X	X	X	-
	Brown pelican	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Caribbean coot	S	T	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Clapper rail			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common moorhen			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common snipe			HIGH	X	X	X	X						X	X	X	-
	Least tern	S	T						X	X	X	X	X				-
	Peregrine falcon	S	E		X	X	X	X						X	X	X	-
	Puerto Rican plain pigeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN
	Shorebirds			HIGH	X	X	X	X	X			X	X	X	X	X	-
	Sora			LOW	X	X	X	X						X	X	X	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL
	White-cheeked pintail			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN
	White-crowned pigeon				X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
	Yellow-shouldered blackbird	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
324	Mourning dove				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG
	White-winged dove				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC
	Zenaida dove				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC

FISH:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Reef fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
322	Nursery fish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-DEC	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	Caribbean spiny lobster				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Octopus				X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	-	JAN-DEC	JAN-DEC
	Queen conch				X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
322	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving
16	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X	-	-
	Whales				X	X	X	X	X	X	X	X	X	X	X	X	-	-
326	West Indian manatee	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
32	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Leatherback sea turtle	S/F	E/E			X	X	X	X	X	X	X					FEB-JUN	APR-SEP	-	APR-SEP	FEB-JUN
326	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

HUN#	Name	Owner/Manager	Contact	Phone
FOREST:				
48	BOSQUE AGUIRRE	DRNA	DIVISION DE MANEJO BOSQUES ESTATALES	787/721-5495
LOCK AND DAM:				
89	MELANIA DAM	ESTADO LIBRE ASOCIADO	ING. LUIS SUAREZ	787/864-0300
MARINE SANCTUARY:				
115	BAHIA DE JOBOS NERR	NOAA/DRNA	RESERVE MANAGER	787/853-4617

WATER INTAKE:

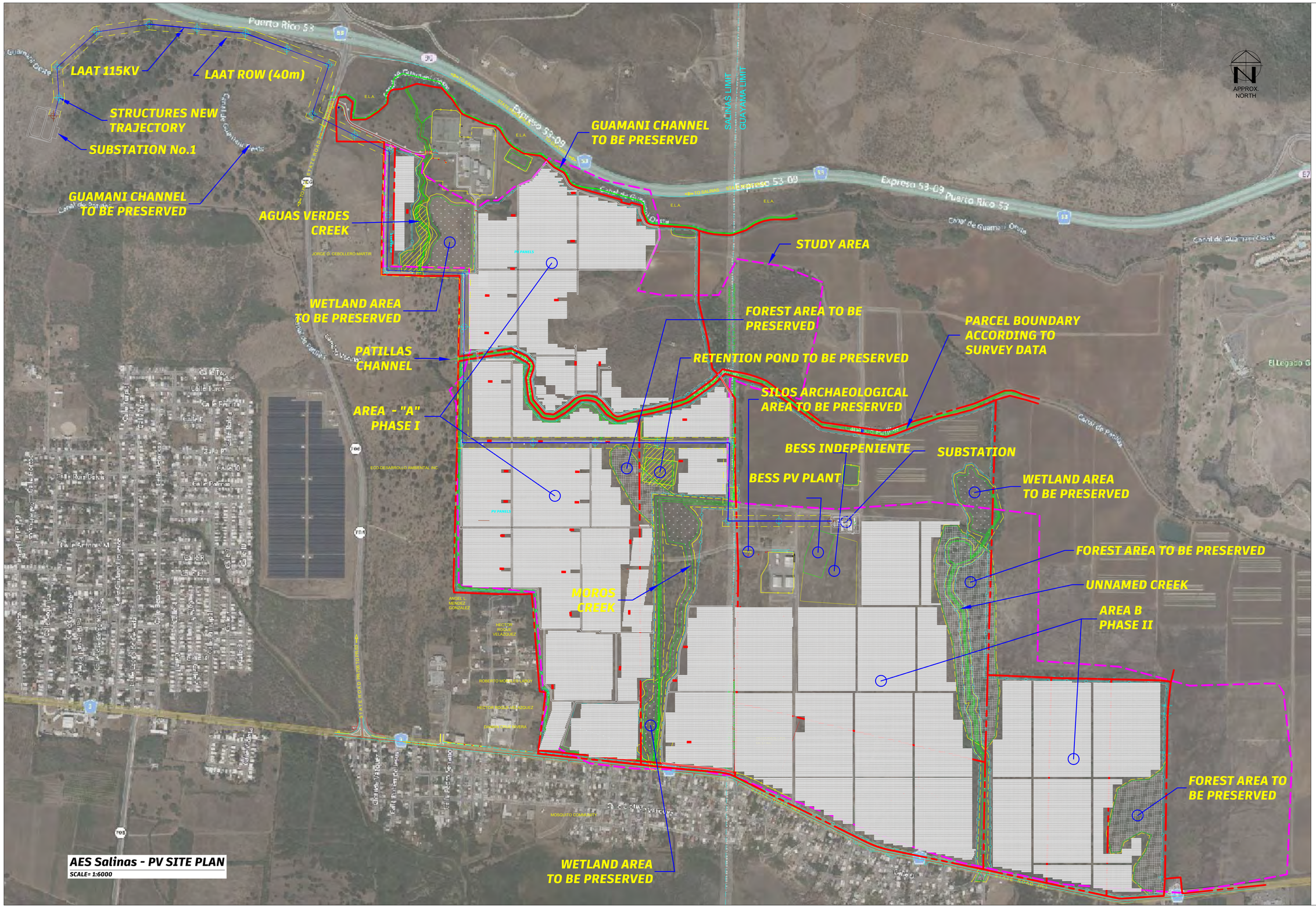
HUN#	Name	Owner/Manager	Location	Phone
131	AGUIRRE POWER PLANT	PREPA AGUIRRE		787/853-4700

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

ANEJO B:

PLANO DEL PROYECTO.

AMBIENTA INC. T. (787) 510-7031 / T. (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / ambientainc@gmail.com



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PMG AND ASSOCIATES
#12 ACOSTA CAGUAS,PR 00726
787.643.4761 INFO@PMGGROUPLLC.COM

AES-Salinas -PV
Salinas, Puerto Rico

PLOT DATE AND TIME:8/21/2023 6:03 PM

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SCALE: AS NOTED

CHECK BY:	DRAW BY:
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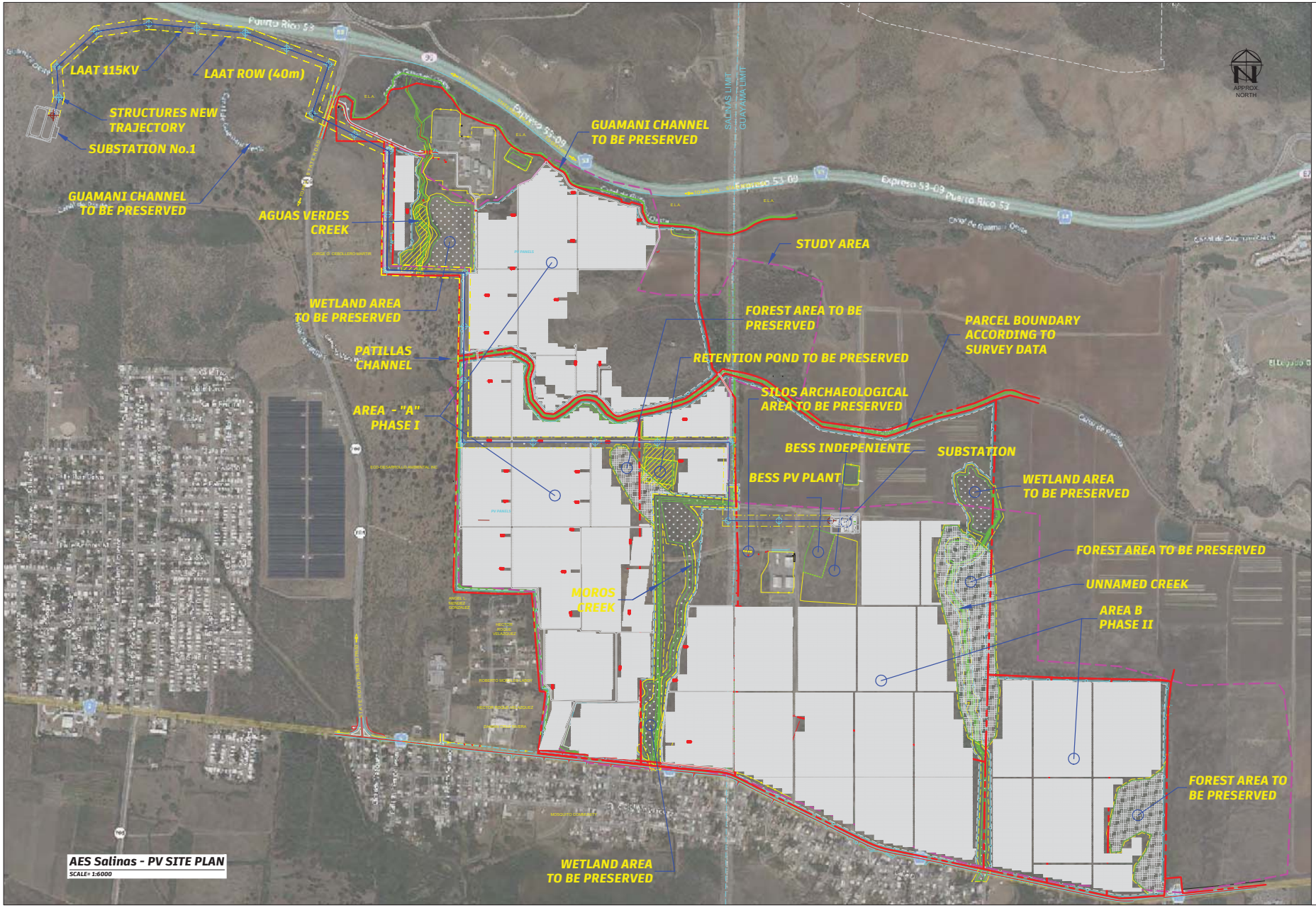
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AES-Salinas PV
SITE PLAN

SHEET:

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APPENDIX D: PROJECT LAYOUT OVER THE AERIAL IMAGE.

AMBIENTA INC.
Environmental Consultants
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TEL. (787) 510-7031 / (787) 732-0907
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787.643.4761 INFO@PMGGROUPLLC.COM

AES-Salinas -PV
Salinas, Puerto Rico

PLOT DATE AND TIME:8/21/2023 6:03 PM

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AES-Salinas PV SITE PLAN

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ATTACHMENT C: PROJECT DESCRIPTION AND DETAILED PROJECT-RELATED INFORMATION

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HC2 BOX 14029 AGUAS BUENAS PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

SALINAS SOLAR PV PHOTOVOLTAIC PROJECT

1. Project Description

Clean Flexible Energy, LLC proposes the construction of a 120 MWn solar photovoltaic system and a 100 MW-4Hr battery system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). CFE is currently working with PREPA on a potential expansion of the battery capacity of 150 MW in addition to what was signed in the ESSA. The negotiation should be concluded in 2023.

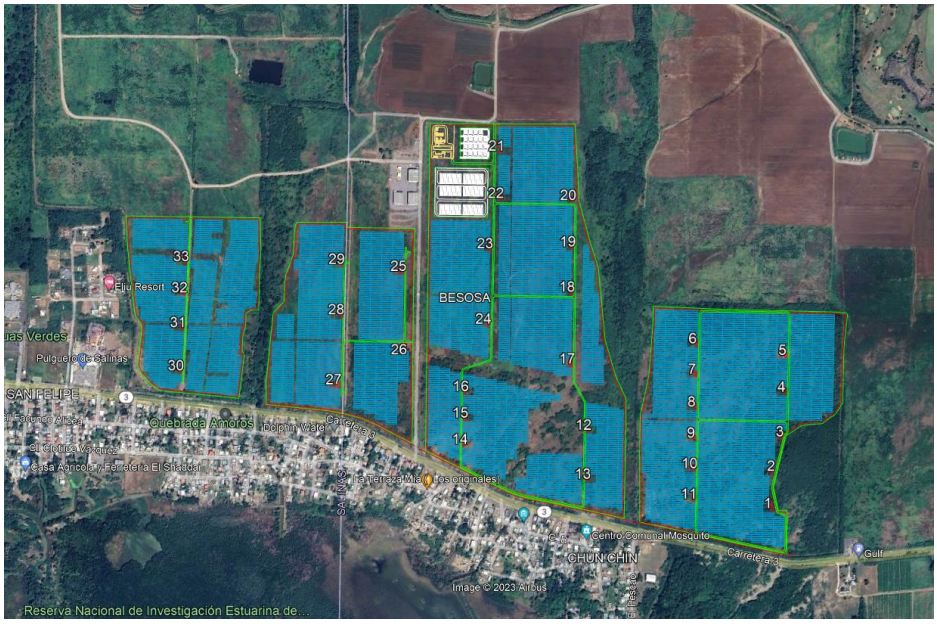
INFORMATION	DETAILS
Project Name	SALINAS SOLAR
Site Location	17°58'23.26"N 66°12'23.78"O
Technology	Solar
Capacity (Mwac)	**AC: 120 MWn/ DC: 147.34 MWp** (Includes MTR Compliance 59.96 MW/ 29.98 MWh) + **BESS:** 100 MW/400 MWh (4 hours duration) / Fix Tilt
Solar Generation P50 (GWh/year)	260.49
Grid Connection Point	CIRO Sectionalizer S/E 115 kV Distance from site: 3,500 mts

Site Location - Map and site layout

Figure 1 - Site Location Salinas



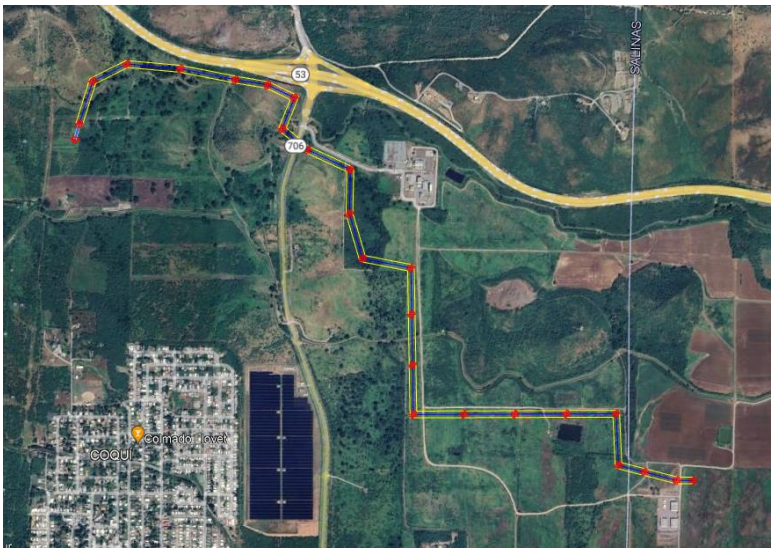
Figure 2 – PV Site Layout



2. Grid Connection Point

Salinas project intends to interconnect the CIRO's sectionalizer substation, according to the following scheme:

Figure 3 - 115kV overhead line to CIRO sectionalizer substation



The works required on the CIRO's sectionalizer substation of 115 kV new bay in a new substation will be composed by one (1) OHL feeder bay based on single busbar arrangement. Related to 115kV OHL, final length is subject to final trace design.

3. Site Description

Site description, ownership, and usage

Landowner	Size	Land Name	Contract Status	Site Usage
AGRIART LLC	404.69Ha	Salinas A y B	Land Lease Agreement Term Sheet* (Attachment T – Land Leases)	Agricultural Productive

The subject Sites are located at Aguirre Ward in the Municipality of Salinas, and in Jobos, and Pozo Hondo Wards in the Municipality of Guayama. Both municipalities are located in the South Region of Puerto Rico. Site A consists of approximately 452.85 acres (466.27 cuerdas) currently vacant. The previous owner, Mycogen Seeds operated a Research & Development and Parent Seed Facility at the Property until 2019-2020. Site B consists of approximately 541.2 acres (557.25 cuerdas) with various plots recently tilled and others with soybeans crops already growing, but most areas are unmanaged. The following sections, Table 1 summarizes the land planning, environmental criteria reviewed, and findings for Site A and Site B.

Figure 4 - Sites Location Map

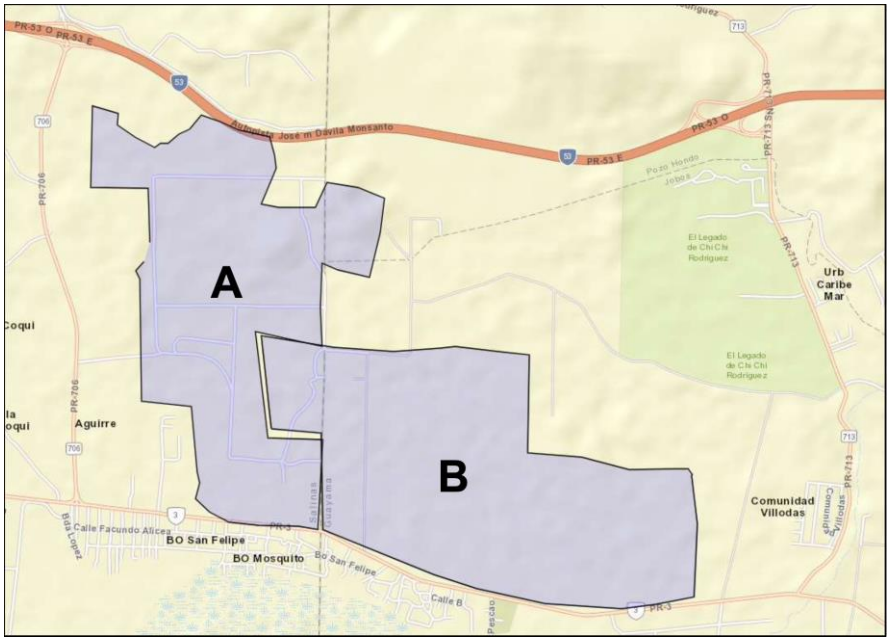


Table 1 - Land Planning and Environmental Review Jobos

Site: Salinas	
Salinas A - Area: 452.85 acres (approx.) **Cadastral Numbers:** 418-000-003-12; 418-000-003-16; 418-000-005- 07; 418-000-009-12; 418-000-009-11 **Coordinates: x:** 223449.7291, y: 215913.8697 (Lat: 17.97698735, Lon: -66.21194050)	**Address:** Undeveloped land in Aguirre, Pozo Hondo and Jobos Wards (access through PR-53 or PR-3) **Boundaries:** North – PR-53 private agricultural lands East – private agricultural lands South – PR-3, private residential lands West – private agricultural and rural residential lands
Salinas B - Area: 541.2 acres (approx.) **Cadastral Numbers:** 418-000-009-12; 418-000-009-13; 418-000-009- 06; 418-000-010-43; 418-000-010-01; 418-	**Boundaries:** **North –** PR-53 private agricultural lands **East –** private agricultural lands

000- 010-04; 418-000-010-05; 419-000-006-29 **Coordinates:** x: 224573.7332, y: 215829.0451 (Lat: 17.97620839, Lon: -66.20132961	**South** – PR-3, private residential lands **West –** private agricultural and rural residential lands

Criteria	Source	Finding Salinas A	Finding Salinas B
Zoning	Mapa de Calificación Municipio de Salinas (Vigencia: 8-junio-2016) Mapa de Calificación Territorio Municipio de Guayama (Vigencia: 19-marzo-2008)	A-P "Agrícola Productivo" (Agricultural Productive) CR-1 "Conservación de Recursos Uno" (Resource Conservation One) CR-3 "Conservación de Cuencas" (Watershed Conservation) A-1 "Agrícola Mecanizable" (Mechanizable Agricultural) Which are equivalent to" A-P "Agrícola Productivo" (Agricultural Productive) CR "Conservación de Recursos" (Resource Conservation) According to (JP, 2020).	A-P "Agrícola Productivo" (Agricultural Productive) A-1 "Agrícola Mecanizable" (Mechanizable Agricultural) C-1 "Comercial Local" (Local Commercial) Equivalent to: A-P "Agrícola Productivo" (Agricultural Productive) C-I "Comercial Intermedio" (Commercial Intermediate) According to (JP,2020)
	Mapa de Clasificación Municipio de Salinas (Vigencia: 8-junio-2016) PUT (Plan de Uso de Terrenos de PR) (Vigencia: 30-nov-2015)	SREP "Suelo Rústico Especialmente Protegido" (Rustic Soil Specially Protected) SREP-A "Suelo Rústico Especialmente Protegido - Agrícola" (Rustic Soil Specially Protected - Agricultural)	SREP "Suelo Rústico Especialmente Protegido" (Rustic Soil Specially Protected) According to PUT and JP database: SREP-A "Suelo Rústico Especialmente Protegido Agrícola" (Rustic Soil Specially Protected Agricultural)
Land Use	Land Cover (2006)	Agricultural, Wooded and Hydrographic-Hydological Areas. The site is currently vacant.	Agricultural and Wooded Areas. The site is undeveloped. Portions of the site are currently leased for agricultural purposes (seeds production).
Flood Zone	FEMA Panel 72000C2105J (Effective: Nov 18, 2009)	Zone X Unshaded (Outside the 0.2% Annual Chance Flood Hazard) Zone X Shaded (0.2% Annual Chance Flood Hazard; 1% annual chance flood with average depths of less than 0.3m or with drainage areas less than 2.6sq.km.; and areas protected by levees from 1% annual chance flood.) Zone A (1% Annual Chance Flood Hazard No BFE det.) Only a small portion of the site at the south is within flood hazard Zone X and at the west within Zone A. The rest of the site is outside of flood hazard areas.	Zone X Unshaded (Outside the 0.2% Annual Chance Flood Hazard) Zone X Shaded (0.2% Annual Chance Flood Hazard; 1% annual chance flood with average depths of less than 0.3m or with drainage areas less than 2.6sq.km.; and areas protected by levees from 1% annual chance flood.) Zone A (1% Annual Chance Flood Hazard No BFE det.) Only a small portion of the site at the south is within flood hazard areas Zone X, while at the south-east there is an area within Zone A. The rest of parcel is outside the flood zone.

	Puerto Rico Advisory Base Flood Elevations	Zone X (0.2% Annual Chance Flood Hazard) Zone A (1% Annual Chance Flood Hazard BFE det.) Zone AE (1% Annual Chance Flood Hazard BFE det.) Only a small portion of the site at the south is within flood hazard Zones X and AE and at the west within Zone A. The rest of the site is outside of flood hazard areas.	Zone X (0.2% Annual Chance Flood Hazard) Zone A (1% Annual Chance Flood Hazard BFE det.) Zone AE (1% Annual Chance Flood Hazard BFE det.) A portion of the site (at the south and east) is within flood hazard areas Zones X, A and AE. The rest of parcel is outside the flood zone.
Hydrology	Hydrography layer (JP database)	Quebrada Aguas Verdes and Quebrada Amoros crosses the site from north to south discharging directly into Bahia de Jobos. Canal de Guamani Oeste runs through the north side of the site and Canal de Patillas crosses the center of the site.	Quebrada Amoros crosses the site from north to south at the west discharging directly into Bahia de Jobos. Canal de Patillas is located 250m to the north of the site.
Wetlands	NWI (USFWS)	Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland Freshwater Pond Riverine	Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland
Natural Resources	Protected Areas Conservation Action Team. 2018. Puerto Rico Protected Areas Database [Dec, 2018]. DNER Priority Conservation Areas (2009)	There are no protected areas in the site. The closest natural protected area is Reserva Nacional de Investigación Estuarina de Bahía de Jobos and Bosque Estatal de Aguirre aprox. 950m to the south and the Planadas-Yeyesa Natural Reserve approx. 6 miles to the north. DNER has also designated an area of priority for conservation, named APC Punta Pozuelo approximately 300m to the south and APC Region Montañosa BE Carite approx. 1,900m to the northeast.	There are no protected areas in the site. The closest natural protected area is Reserva Nacional de Investigación Estuarina de Bahía de Jobos and Bosque Estatal de Aguirre aprox. 0.8 miles to the south-west and 400m to the south respectively, and the Planadas-Yeyesa Natural Reserve approx. 6 miles to the north. DNER has also designated an area of priority for conservation, named APC Punta Pozuelo at the south and APC Region Montañosa BE Carite approx. 1.4 miles to the northeast.
	USFWS	USFWS-IPaC tool (Information for Planning and Consultation) was reviewed for federal protected wildlife and critical habitats. One endangered species was identified in the zone the Puerto Rican Boa. No critical habitats, migratory birds, National Wildlife Refuge lands or Fish hatcheries were found.	USFWS-IPaC tool (Information for Planning and Consultation) was reviewed for federal protected wildlife and critical habitats. One endangered species was identified in the zone the Puerto Rican Boa. No critical habitats, migratory birds, National Wildlife Refuge lands or Fish hatcheries were found.
Archaeological and Cultural Resources	Cultural resources inventory from JP database	Archeology Resources Area was identified covering the center and north-west of the site.	Archeology Resources Area was identified covering the north-west corner of the site.

Geology	US Geologic Map	Alluvium Formation C Robles Formation	Alluvium
Soils	National Resource Conservation Service (Soil Survey)	(42.3%) PlB – Paso Seco clay, 0 to 5 percent slopes (19.4%) VvB - Vives clay, 2 to 7 percent slopes (13.3%) PrC2 – Pozo Blanco clay loam, 5 to 12 percent slopes, eroded (5.7%) JaC2 – Jacana clay, 5 to 12 percent slopes, eroded (5.2%) AMC2 – Amelia gravelly clay loam, 5 to 12 percent slopes, eroded (4.4%) DrF – Decalabrado-Rock land complex, 40 to 60 percent slopes (4.0%) Rs – Rock land (3.4%) DeE2 – Descalabrado clay loam, 20 to 40 percent slopes, eroded (2.2%) JaB – Jacana clay, 2 to 5 percent slopes	(79.3%) PlB – Paso Seco clay, 0 to 5 percent slopes (12.9%) Po – Poncena clay (5.5%) VvB - Vives clay, 2 to 7 percent slopes (2.3%) Gm – Guamani silty clay loam
Farmland	US Soil Survey Reservas Agrícolas (Agriculture Department and the Planning Board)	Classified PlB as Prime farmland if irrigated Classified VvB as Prime farmland if irrigated Classified PrC2 as Prime farmland if irrigated Classified JaC2 as Farmland of statewide importance Classified AMC2 as Prime farmland if irrigated Classified DrF as Not prime farmland Classified DeE2 as Not prime farmland Classified JaB as Farmland of statewide importance	Classified PlB as Prime farmland if irrigated Classified Po as Prime farmland if irrigated Classified VvB as Prime farmland if irrigated Classified Gm as Not prime farmland
Contaminated Sites	EPA Superfund National Priorities List (NPL)	No superfund sites were found within the project area. The nearest NPL site is located 3.7 miles to the east. (Site ID: PRD980763783 Fibers Public Supply Wells) No RCRA Facilities were found within the project area. The nearest site is located 1.8 miles to the west.	No superfund sites were found within the project area. The nearest NPL site is located 2.4 miles to the east. (Site ID: PRD980763783 Fibers Public Supply Wells)
RCRA Facilities	EPA	No RCRA Facilities were found within the project area. The nearest site is located 1.8 miles to the west.	No RCRA Facilities were found within the project area. The nearest site is located 2.2 miles to the south-west.
Building/Structures	Aerial photo Field Visit	Most of the site is undeveloped. Permanent structures may be present based on aerial views reviewed; no major buildings were observed.	Most of the site is undeveloped. Permanent structures within the site may be present in the northwest based on aerial views review; no major buildings were observed.
Highway and Roads	State roads maps	The site is bordered by state roads PR-53 and PR-3.	The site is bordered by state roads PR-53 and PR-3.

Water main	PRASA Infrastructure (gis.ogp.pr)	Water and Sewer lines were found parallel to PR-3 at the south boundary of the Site. Potable water lines were found ranging from 4in to 6 in, and a 36in sewer line along PR-3.	Water and Sewer lines were identified parallel to PR-3 at the south side of the Site. A 4-in potable water line was identified parallel to PR-3 at the south of the site, while an 8in and a 36in sewer line were also identified parallel to PR-3.
Power main	PREPA Infrastructure (gis.ogp.pr)	Electric distribution lines were located across the site. Additionally, 115K and 230K transmission lines were found 0.86 miles to the west and 0.39 miles to the north of the site. Also, a 38K transmission line is parallel to PR- 3 at the south of the site. Central Aguirre is located approx. 1.4 miles to the southwest, and a substation 2.8 miles to the west.	Electric distribution lines were located across the site at south and west. Additionally, 115K and 230K transmission lines were found 1.5 miles to the west and 1.1 miles to the north of the site. Also, a 38K transmission line was located parallel to PR-3 at the south of the site. Central Aguirre is located approx. 1.6 miles to the southwest, and AES Electric Power Plant at 2.4miles to the southeast. Two substations are located 3.4 miles to the west and 3.4 miles to the east.

Salinas A

Site A is bordered by agricultural and rural areas and roads. The zoning of the entire portion over Salinas Municipality is classified as A-P "Agrícola Productivo" (Agricultural Productive). The portion over Guayama Municipality at the east, is classified as A-1 "Agrícola Mecanizable" (Mechanizable Agricultural), CR-1 "Conservación de Recursos Uno" (Conservation One) and CR- 3 "Conservación de Cuencas" (Watershed Conservation). According to JP, 2020 the equivalences for these zoning districts are A-P "Agrícola Productivo" (Agricultural Productive) and CR "Conservación de Recursos" (Resource Conservation). According with current land planning regulation (JP, 2020)2, there are no changes in the zoning as established in the equivalences for the updated zoning nomenclatures. The classification of the Site is 100% SREP "Suelo Rústico Especialmente Protegido" (Rustic Soil Specially Protected), according to the current Land Use Plan (PUT).

Site A is bordered by state roads PR-53 and PR-3, which may provide direct access to the site. The Site is subject to utilities right of ways (PRASA and PREPA) that traverse along road PR-3. Electric distribution lines are located across the site. Additionally, 115K and 230K transmission lines were found 0.86 miles to the west and 0.39 miles to the north of the site. Also, a 38K transmission line runs parallel to PR-3 at the south of the site. Central Aguirre is located approximately 1.4 miles to the southwest, and a substation is located 2.8 miles to the west. Water and Sewer lines were found parallel to PR-3 at the south side of the Site. A potable water line from 4-in to 6-in runs along PR-3, also a 36-in sanitary line traverse along PR-3.

According to the reviewed maps, hydrological features of the Site include multiple streams. Quebrada Aguas Verdes and Quebrada Amoros crosses the site from north to south discharging directly into Bahia de Jobos. Canal de Guamani Oeste passes through the north side of the site and Canal de Patillas crosses the center of the site. According to the flood zone maps a small portion of the Site (west and south) is located within Flood Hazard Zones.

The USFWS National Wetland Inventory (NWI) map suggest the presence of wetlands within the Site. These areas include freshwater wetlands in a portion in the center and southeast section of the Site.

Salinas B

Site B is bordered by agricultural and rural areas and roads. The zoning of the entire portion over Salinas Municipality is Site is A-P "Agrícola Productivo" (Agricultural Productive) and most of the portion over the Guayama Municipality is A-1 "Agrícola Mecanizable" (Mechanizable Agricultural) with a spot of C-1 "Comercial Local" (Local

Commercial). According with current land planning regulation (JP, 2020)3, the equivalence for the assigned zoning districts is A-P “Agrícola Productivo” (Agricultural Productive) and C-I “Comercial Intermedio” (Commercial Intermediate). The classification of the Site is 100% SREP “Suelo Rústico Especialmente Protegido” (Rustic Soil Specially Protected), according to the current Land Use Plan (PUT). Appendixes show aerial views of the site.

The site is bordered by state roads PR-53 and PR-3, which may provide direct access to the site. The Site is subject to utilities right of ways (PRASA and PREPA) that traverse along road PR-3. Electric distribution lines were located across the site, south and west. Additionally, 115K and 230K transmission lines were identified 1.5miles to the west and 1.1miles to the north of the site.

Also, a 38K transmission line runs parallel to PR-3 at the south of the site. Central Aguirre is located approx. 1.6miles to the southwest, and the AES Electric Power Plant at 2.4miles to the southeast. Also, two substations were located 3.4miles to the west and 3.4miles to the east. Water and Sewer lines were found parallel to PR-3 at the south side of the Site. A 4-in potable water line was found parallel to PR-3 at the south of the site, and an 8in and a 36in sewer line were identified parallel to PR-3.

According to the reviewed maps, hydrological features of the Site include Quebrada Amoros which crosses the west of the site from north to south discharging directly into Bahia de Jobos. Canal de Patillas is located 250m to the north of the site. According to the flood zone maps a portion of the Site (south and east) is located within Flood Hazard Zones.

The USFWS National Wetland Inventory (NWI) map suggest the presence of wetlands within the Site. These areas include freshwater wetlands in a portion in the center and southeast section of the Site.